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# Brain Disorders (Cerebral Palsy) And The Ability Of Academic

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### ABSTRACT

The purpose of this empirically is to get a clear picture of low intervensi given mild mental retardation (cerebral palsy) in children to improve their academic abilities. Research that started from Maret 2017 through may 2017, on a boy named AMR student in the Homeschooling Seto Brothers (HKS) Bintaro, Tangerang Selatan. This study used a qualitative approach with case study method. The collection of data through observation, interview and document research. The data were analyzed qualitatively. The result sducahowedan increase in academic knowledge after being given an educational intervention for 4 months. This is evidenced by the significant increase in work in class AMR, The LKS (Student Worksheet). Suggestions keep motivate students to remain willing to learn, the cooperation between teachers and parents should pay more attention to giving the effect is more significant in the progress of interventions undertaken in the school, pursued no alternations teacher.

Keywords: Cerebral palsy, Case study, Early interventions

### **INTRODUCTION**

Special problems in children requires special handling and approach that is not easy, and cooperation among the various professions and disciplines. Special needs children require special attention so that all potential and capabilities as individuals can develop and function optimally. Children with special problems known as the Extraordinary child or children with special needs (ABK). In order to realize the autonomous and quality education as stipulated in Law No.20 of 2003 on National Education System, necessary efforts to support integral education the strategic and peneyelenggaraan. Quality educational opportunities that applies to all ages, from early

childhood as a golden period of up to higher education. This is made clear in the Act No.20 of 2003 Article 32, paragraph 1 that special education is an education for students who have difficulty in following the learning process because of physical, emotional, mental, and has the potential sosal intelligence and special talents. Paragraph 2 special education services is education for learners in remote or an underdeveloped, remote and indigenous communities affected by disasters, social upheavals, and not capable economically.

The concept has been applied by UNESCO above require strong support from all parties involved in the world of education. In connection with the special needs children, they have the same rights as other children their age in order to develop potential, talents or abilities, and interests they share. Children with special needs have the same right to be able to get an education.

Educate and guide young children with special needs, with various problems and dynamics, to generate awareness upon us the uniqueness of each advantages and disadvantages that they have, and will grow the strength to be able to educate them by heart. Required sensitivity teachers and schools to be able to recognize the characteristics and distinctive character of them, so that teachers can make early detection of potential positive and negative that these children have, as well as to formulate measures of intervention tebaik in learning, in order to maximize every talent and positive potential that they have and support them to be able to achieve a better quality of life.

Along with the dynamics of awareness of children with special needs, early childhood education has a very important role for the optimization of the child's development in every aspect (cognition, language, physical, motor, emotional, and social). Various problems in children is very important to be dealt with as early as possible, so that the problem can be easily solved and the bad pengruh on child development can be prevented early.

There are several programs and methods that can be applied and developed for early age children who have special needs. Programs that are already commonly applied to children with special needs included in homeschooling kak seto is the process of training and coaching themselves, talking, speech therapy, and fisioterapy. Interventions that have been applied to children with special needs more applied individually or in small classes, and in a closed room. Even some inclusive schools make a special room with the room name ABK (Children with Special Needs), wherein the space is used as remedial teaching room, therapy room, or space that is intended only for the evaluation of children with special needs ank. This of course can make children with special needs into smakin feel different from other children. It makes parents become reluctant to support their child therapy with an increasingly negative stigma attached firmly to the children with special needs.

• Homeschooling Kak Seto has a different educational program with other schools in general. In public schools, children used to sit in the room, and children are normally expected to listen to watch when the teacher gives the material in front of the class. Learning activities are generally carried out in public schools are learning activities inherent to the work of writing, listening and reading. Such activities do not correspond to the individual differences of each child, especially for children with special needs. One of the forms of learning activities in homeschooling kak seto is games. Games are the learning activities carried out at the beginning of learning. The goal is to condition students to be more prepared and calm in the study. In this activity, tutors provide games or games that can stimulate motor skills, analysis, teamwork, and critical and creative thinking.

This is consistent with the vision of homeschooling kak seto is as one of the institutions of quality education, providing educational programs that are creative, and child friendly so that learners can become a superior being and strong character as future leaders in the future. Then the school's mission is Creating child-friendly learning environment, conducive and fun for students according to the needs, learning styles, strengths and its limitations; Help learners to discover and develop their interests and talents optimally; Forming a human learners become lifelong learners who have a social conscience and a strong character; Facilitate learners to acquire the relationship between the material learned to real life; Help overcome the limitations of learners with individualized approach.

Every child has the same right to education. And, as far as possible every child a decent education for himself. However, the experience shows that many children get less than pleasant experience during their schooling. Call it the case of bullying, yelling and violence from teachers and even the deprivation of children's creativity. The experiences that are less memorable raises a phobia against school (school phobia) for children and parents (Mastropieri, 2010).

Then, towards uniformity child's abilities and skills in all areas of co-lethal interests and talents of children are of course different, because every child is unique. Furthermore, the curriculum is too crowded and chores that pile up makes learning become a burden for most children. Seeing this situation, it is necessary to find alternative solutions for children who are less suited to the formal education system, one of its forms is a homeschooling activities (school house).

Based on these reasons, Kak Seto as educational leaders and their son team, building a school community house called Homeschooling Kak Seto (HSKS), which is an alternative educational institution that is constantly watching children's right to education.

Homeschooling is an education system or organized learning at home. Homeschooling Kak Seto is an alternative school that puts children as subjects to approach "at home" or at home. With the approach of "at home" here children feel comfortable learning because they can learn anything according to his wishes, anytime and anywhere as he was in his house. So, despite the so-called homeschooling, does not mean that the child will continue to learn at home, but children can learn anywhere and at any time the origin of the circumstances really comfortable and fun as "at home". So in Homeschooling system, flexible class hours: starting from waking up to going to bed back (Hatri, 2017).

Qualification on Homeschooling Kak Seto ranging from elementary, junior high and high school. At the elementary level consists of class I to class VI, at the junior level consists of classes VII to IX class, while at the high school level consists of class X to class XII. In this study, researchers will conduct observation and interviews to students with special needs elementary grade one and two as well as guidance when teachers do a behavioral intervention to students with special needs are and make observations and interviews to students with special needs class developmental to be a comparison behavioral interventions given by teachers HKS (Home Schooling Seto). one form of therapy given this school in influencing student learning behavior of children needs with special are integrated comperehensive Green Therapy (ICGT). Integrated comperehensive Green Therapy (ICGT) is a modification and fusion speech therapy, occupational therapy, to provide guidance in taking care of themselves, sensorymotor therapy, play therapy, and the therapy applied behavior analysis (ABA) therapy.

Integrated comperehensive Green Therapy (ICGT) is an integrated and comprehensive therapy that diraancang for each child with special needs, with the ultimate vision provides treatment and admission to each individual child's special as well as other children who do not have barriers. This vision is in line with the principle of Unconditional Positive Regard in counseling and therapeutic approaches for children with special needs (Widiasari, 2015).

ICGT committed to fair unconditional acceptance and appreciation so that children with special needs can always enjoy school and feel safe and comfortable to actualize any of her potential. IGT is the development of several therapies for children with special needs who are already there, with a focus on communication skills, relationships and interactions with the environment, optimilisasi potential cognitive and sensorimotor (Klein, M.D. 2001).

Integrated comperehensive Green Therapy (ICGT) is a combination of several programs that can be applied to children with special needs, which include: efforts to help yourself is taking care or care for themselves (self care / physical motor), help themselves (self-help / social emotional), and daily activities or activities of Daily Living (ADL / cognitive, and language arts). In a self-trained building the skills needed to care for themselves everyday, such as eating and drinking activities independently (washing hands, feet washing, bathing, brushing teeth, BAB, BAK), combing hair, wearing clothes, etc.

ICGT also adapted speech therapy which is one of the special programs that are used for children who have communication disorders.

The scope of practice includes muscle exercises velum, velum with the cooperation between the muscle articulation muscles, lips tongue exercises, exercise consonants and vowels, as well as the improvement of sound and rhythm. Packed ICGT therapy through play activities and media ekspolorasi with sand, water, soil, grass, dry leaves, and the various means available in nature. For children with problems gross and fine motor integration, use water as aquatic therapy facilities, and various means of motion or mechanotherapy like plank. Currently there are 2 (two) early childhood program ICGT, one of whom had mental retardation disorders with Cerebral Palsy (brain disorders) and one child with communication disorders.

Based on the description above problems, the researchers wanted to know whether the Integrated comperehensive Green Therapy (ICGT) effective for children with special needs, especially children Cerebral Palsy (Brain Disorders) in school HKS (Homeschooling Kak Seto). This study aims to determine whether the Integrated comperehensive Green Therapy (ICGT) effective for the development of cognitive, fisikmotorik, language, social and emotional art children with special needs, especially children Cerebral Palsy (Brain Disorders) in school HKS (Homeschooling Kak Seto). ICGT therapeutic effectiveness is seen from the decline in improper behavior, as well as the development of cognitive, fisikmotorik, language, art and social emotions shown by the four young children with special needs are given ICGT therapy. The scope of this research is 1). Children with special needs, especially Cerebral Palsy, 2). Such teachers who teach Children and 3) Parents of these.

According Purba (2016), mental retardation is a condition that can hinder a child's development, whether the inability of children characterized by a very limited intellectual functioning and adaptive behavior that looks through the ability of the conceptual, social and adaptability. This was confirmed by Medicastore (2016), tunagrahita have 2 or more shortcomings and this was before the age of 18 years. The following is a classification of mental retardation (mental retardation), as follows: mental

- 1. Retardasi mild (IQ 50-55 sd 70), mental
- 2. Retardasi moderate (IQ IQ 35-40 to 50-55), severe mental
- 3. Retardasi (IQ IQ 20-25 to 35-40), mental
- 4. Retardasi profound (IQ below 20-25).

One to two percent of profound mental retardation is in desperate need of total surveillance and care throughout their lives.

Mental retardation has significant subaverage intellectual that exist simultaneously in adaptive behavior and manifested during the developmental period of the child. In this case I examined a child with Cerebral Palsy (CP) aged 8 years and 4 months initials AMR.

Cerebral palsy is a condition characterized by poor muscle control, stiffness, paralysis and other nerve dysfunction. CP is not a disease and is not progressive (getting worse). In infants and premature babies, part of the brain that controls muscle movement is very susceptible to injury. CP occurs in 1-2 of 1,000 babies, but 10 times more common in infants are very small (Medicastore, 2016).

There are several types of CP, as follows:

- a) Spastic types (50% of all cases of CP), the muscles become stiff and weak. The stiffness of the bias in the form of: 1. quadriplegia (arms and legs), 2. Diplegia (second leg), 3. Hemiplegia (arm and leg on one side of the body).
- b) Type dyskinetic (koreoatetoid, 20% of all cases of CP), muscular arms, legs and body spontaneously move slowly, writhing and uncontrollable. But it can also arise vigorous movement and twitched. Emotion causes worsening situation, the movement will disappear if the child slept.
- c) Type Atkasik, (10% of all cases of CP), consisting of tremor, unsteady steps with both legs far apart, impaired coordination, and abnormal movements.
- d) Mixed mode (20% of all cases of CP), is a combination of two types of the above types, are often found is a combination of the type of spastic and koreoatetoid.

In this case the subject of my research, including the type-oriented Spastic hemiplegia (arms and legs right). The characteristics CP children (AMR), as follows:

- a) physical condition (appearance) the maturity of the motor slows, less muscle movement coordination (not able to stand and walk on his own).
- b) Intellectual conditions which often lose focus and concentration in the pronunciation of the vocabulary as FATHER GO TO MARKET that in repeated by AMR dn intellectual level IQ 68.

The social conditions of emotion, namely AMR hang out with her siblings were lacking self-control, female, lack of concentration, and reserved The form of intervention study conducted by the teacher therapist in children CP as follows: Intervention Pre-Academic in the first week of the preposition target students are able to about preposition left right, up and down, front and back through the medium of stationery and picture cards. In the second week that recognize the sound of various sounds with the target students are able to recognize different sounds and types of music instrument music instrument tetrentu through the media. In the third week the discriminate and imitate beats through the

medium of music. Last week four which recognize the similarities and differences of objects through the media stories on the theme of "I and my family" (the first month).

Academic Intervention in the second month, the first week focuses on reading vocabulary and per word written and spoken through tools drawing card. In the second week focused smoothness that is able to read texts read pargraf reads like a dot, comma and question mark with the theme "I and the family". third week focused In the reading comprehension that students are able to understand simple sentences and FAQ. Lastly the fourth week focused writing that students are able to write the letters A s., D Z both capital and lowercase letters (Hatri, 2017).

Furthermore Non Academic intervention in the third month, the first week of student self-care focus, the students learn to care for and take care of himself through the medium of a mirror, comb hair and wearing uniforms independently. In the second week focuses behavior independently of food peeling knife through the media. In the third week focuses throw objects that students learn to throw and catch the ball as its object. In the fourth week (last) student self-direction that focuses on shopping in the school canteen through the medium of existing shopping cart in the school cafeteria HKS

The approach taken by the school and parents at AMR, as follows:

- 1. Aqua Therapy, it is exercise movement of the muscles of gross motor of legs once a week for 2 hours.
- 2. Physio therapy (physical at his feet) three times a week for 3 hours in the clinic to cover, South Jakarta.
- 3. images course (art) once a week
- 4. Speech therapy (fine motor skills) for one year to train reading.
- 5. Therapy goes five steps (gross motor skills).
- 6. Behavioral therapy (social emotional), which is the task of the teacher as play sand, blocks, writing vocabulary words (language) and eye contact with the same people who deket AMR.
- 7. Memory therapy (cognitive), which trains memory AMR repeatedly within 15 minutes with a picture card media such as naming the animals.

#### METHOD

One type is a descriptive qualitative research in the form of research with case study method. The case studies included in the descriptive analysis, the research conducted focused on a particular case to be observed and analyzed carefully until complete (Purba, 2016). This research was conducted at HKS (Homeschooling Kaka Seto), Bintaro, South Tangerang. Learning time is adjusted with HKS school schedule during March till June 2017. The data source is AMR, ages 8 years and 4 months developmental classes.

information retrieval technique is the subject, notes, interviews, direct observation, and physical examination.

Student Profile. AMR was born in Jakarta, 31 March 2009. The third child of the mother and father's initials EI initials HS. His father worked as one staft in the office of multinational companies and his mother taught in elementary school Ciledug, South Tangerang. Residing at Jl. Middle Reef Permai housing, TU / 5, Ciledug, Tangsel. AMR since the baby has mental retadarsi due to respiratory infections suffered by mothers during pregnancy age of 7 months. The results of treating physician diagnosis of birth AMR that he suffered Intellectual dissability with light classification (Mild). At the age of 4 years AMRempat tasting namely early childhood kindergarten school B Mother Care Foundation in Ciledug, Tangsel. Only six months he tasted the bench early childhood, his parents decided to break the school because AMR had difficulty walking independently, it is difficult to control his emotions and difficult to adapt to his friends. Since he breaks, AMR conducted a series of treatments performed at the clinic Liput parents. Therapies that subjects do at the clinic is physio therapy and aqua therapy.

In line with the therapy he did continuously for two years (from age 4 to 6 years), the muscles of the legs gradually improved motor joints with their motor movements slowly. That ultimately parent AMR put homeschooling kak seto which berlamat at JI. Armed Forces Memorial Park No.03 A. Parigi Lama, South Tangerang-Banten 15227. Since the age of 7 years of AMR learn to stand and walk with the help of the media seats that provide teacher.

Soon he diajarin teacher standing without using the media, he managed to walk

with his feet, although still limping. In addition to learning to walk, AMR also diajarin teacher know vocabulary through picture cards to reinforce the target concentration in remembering vocabulary that has been learned and learn motor moving the body in throwing and catching a ball. The type of intervention by teachers and researchers are pre-academic intervention, academic and non-academic. For pre-academic intervention, academic and nonacademic whose frequency is three days a week that started on Tuesday, Thursday and Friday at the same time which is 09.00 till jam12.00 in child therapy room, HKS school at the age of 6.5 years.

### **RESULTS AND DISCUSSION**

#### Results

My analysis as researchers that AMR age of 8 years and 4 months and between 55-70 scala Binet intelligence. The ability to read the same as the first grade elementary school children while the ability to count to 20 can add up to 10. The poor fine motor ability, AMR talking with a good pronunciation as recited verses of the Quran according lafadznya, but understand others while talking and difficult to concentrating, attention is turning. When lessons AMR liked to look at all the gestures the teacher so that its work can be done well.

Interspersed after school AMR often clawed at her aunt. This is because AMR sulit to control his emotions so as to make her aunt were wounded by scratching the subject. But her aunt reply back scratches the subject so that the subject realizes his mistake that ultimately emotion clawing at his aunt did not recur.

Parents subject to surrender completely to the therapy mupun learning school, at home subject to release him to play, because the day had learned in school. In elderly subjects rumahpun provide aqua therapy, where this therapy may provide a stimulus for movement of the muscles and the joints of his right foot for 2 hours once a week. Furthermore, the subject also did physical therapy in the clinic Liput for 3 hours 3 times a week.

Here is the improvement that occurred on AMR after receiving the intervention of teachers, as follows:

*The first month of.* AMR still do not understand what is taught by the class teacher, she was silent and continuous attention to

classmates, during the first month of this subject does nothing, but this represents significant progress considering the subject did not want to go to class. Then the subjects began to learn to distinguish the knock from different directions like a knock sound of boots.

The second month. AMR want to learn to recognize the letters AZ both capital and small letters and write them into notebooks with a variety of subjects remember vocabulary although the level of concentration is still low. This month, AMR began to lose concentration because of the presence of his friend who always acted as if playing a flute music instrument. But sometimes the subjects fell like a forgotten letter, have not been able to do addition and subtraction independently.

*The third month.* In this third month already AMR count, read and write independently and peeling food with a knife and shop for food in the school cafeteria independently. Namu are sometimes subject to decreased motor as yet sticky catching the ball.

The fourth month. In this fourth month AMR already writing English words the birds (birds), was able to write the erect continued, as the father went to the garage repairing his bike independently. AMR is fortunate to have a therapist (classroom teachers) who patiently took AMR enter the classroom, another teacher was encouraging to AMR, because it is also necessary for AMR are not discouraged or embarrassed in class.

#### **CONCLUSION AND SUGGESTION**

Based on the research results can be concluded as follows:

- 1. Children cerebral palsy (CP) light, if given the continuous intervention, there will be a significant improvement.
- 2. Children's cerebral palsy (CP) light can still be taught, as long as the patient teachers provide learning through stimulation behavior.
- 3. The role of parents and teachers in the learning process very large impact primarily determines the behavior assessment schedule.

In connection with the results of temua study, the authors suggest some of the following: For the teacher (therapist) that teachers should further motivate the subject to learn to walk independently and learn to control the behavior of aggressive subjects when studying in the classroom and the teacher should be able to divert the behavior of laughter to activities solids such as playing ball / exercise.

For parents, the parents remain consistent in teaching the subject in terms of reading and writing so that the muscles to be flexible on the move and monitor motor development through aqua therapy and fisionya and parents take the time to vacation together every week.

## BIBLIOGRAPHY

- Hatri, M.M. (2017). *Grafik perkembangan terapi siswa cerebral palsy*. Jakarta: HKS Press.
- Klein, M.D. (2001). Strategies for Including Children with Special Needs in Early Childhood Settings. USA: Thomson Learning.
- Mastropieri, M.A. (2010). The Inclusive Classroom : Strategies for Effective Differentiated Instruction. 4<sup>th</sup> Edition. USA: Merrill Pearson.
- Medicastore. (2016). *Pengenalan abnormalitas ABK*. Jakarta: medicastore.com.
- Purba, N. (2016). Tunagrahita dan Kemampuan Akademik. *Prosiding seminar nasional. Cet.1.* Jakarta: UNJ Press.
- Widiasari, Y. (2015). Efektivitas Integrated Comprehensive Green Therapy (ICGT) pada Anak Usia Dini Berkebutuhan khusus di Sekolah Alam Baturaden. Purwokerto: Univ. Muhammadiyah Purwokerto.