

Influence of Intervention and Intelligence Methods to Ability Centralization Attention Child ADHD in Inclusive Basic School

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Abstract

This study aims to find out empirical data about differences in focusing ability of ADHD children who get treatment with Back in Control method and Lovaas method by taking into account the intelligence of students in class, 1 and 2 of inclusive primary school of Tangerang. This research uses experimental method, 2x2 factorial design, and determination of sample using nonprobability sampling technique, with purposive sampling. The results of this study conclude that there is an influence of intervention methods on attention concentration ability of ADHD children, there is influence of intelligence level to focus attention ability of ADHD child, and there is interaction between intervention method and intelligence with focus ability of ADHD child attention. Based on the results of the third hypothesis testing proved to be the interaction between Back in Control intervention method, Lovaas and intelligence to focus attention ability of ADHD children it was concluded for that analysis continued with Tukey test, which concluded that children with high intelligence ADHD better ability attention when treated with Back in Control method compared with Lovaas method treatment. ADHD children, who have low intelligence better concentration ability by using treatment method of Lovaas, are compared to treatment with Back in Control method. There is a difference in focusing ability between high intelligence ADHD and low intelligence on the application of Back in Control method. High-intelligence ADHD children are better at focusing attention than low-intelligence ADHD children. There is a difference in focusing ability between ADHD children with high intelligence and low intelligence on the application of Lovaas method. Back in Control method is better applied to speak introverted extrovert students in the application for high-intelligence ADHD children.

Keywords: Intervention Method, Intelligence, Concentration

1. Introduction

The teaching and learning process experienced by young children, including students in grades 1, 2 (one, two) in inclusive primary schools, is an interesting subject to discuss. Given that individual differences carry imperative implications for each educational service to take into account the unique and varied characteristics of students. The condition of the children of age 1, 2 of elementary school not all have the spirit of learning with a focus on good attention on a learning object. The educational services adopt all the privileges, as well as the child's abilities, so education evolves into inclusive education, which is to condition the class prepared in a form of learning service designed with special treatment to meet specific needs in the context of a mainstreaming way of education. The concept of inclusive education is closely linked to human rights and the multifaceted state of

society. This is in line with the absence of Abdurrahman [1], inclusive education as an educational service system that requires all children with disabilities to be served in the nearest schools, in regular classes with their peers. In this study focused on handling ADHD children, which is expected to also be able to adjust to the environment and daily life that is often encountered.

The approach of intervention methods can develop discipline and liveliness of teacher learning and teaching. Intervention method can be done through Back in Control method and Lovaas method. The Treatment of the Back in Control method allows learners to create their own schedules in preparation for learning with strict teacher instruction and on a continuous basis until a change of attitude and behavior occurs in particular focusing on a learning object. The teacher uses props to attract the attention of the child, who was previously conditioned strictly for orderly sitting and learning. At the time of treatment of Back in Control method implemented, there are things that need to be considered is the difference of

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child intelligence, because the intelligence of children is not the same. This method of intervention is expected to provide the benefits of understanding the conceptual constructs and changes in focusing attention and social behavior (adjusting) with the environment

1.1. Pressure or Displacement Based Methods (Back In Control Intervention Method)

The program is based on a rule-based system, so it does not depend on the child's willingness to comply. The "Back In Control" program by Gregory Bodenhamer [2] has unique advantages over many of the Rewards / Punishment models of intervention with ADHD. It is a rule based system, which does not depend upon the desire of the child to comply. It is, in fact, a parent training system (1988: 8).

Further in Bodenhamer [3] states that, to be considered in the application of the method of Back in control, are: a) punishment & rewards, b) problem solving (bargaining, negotiating, compromising, c) freedom to fail, d) reasoning, e) inherited insight, f) Getting Tough (1988: 9)

Based on this, then the behavioral behavior in the Back In Control method includes: 1) behavioral targets. Problems in focusing attention and hyperactivity-impulsivity in children ADHD, in Back In Control method there are behavioral targets in behavior change, for example: a) able to clean up toys and belongings of the child itself, b) listen to other people talk to completion, c) activity to complete. 2) Time plan, including training, program making, making rules to be followed and monitoring and evaluation. 3) Implementation of the program, ie by parents, teachers as program managers and assisted by the closest people around the child, and accompanied by a therapist as a guide and resource persons, 4) Programs planned, based on behavioral targets, then made detailed rules that must obeyed child. 5) Program evaluation, activities are evaluated using a monitoring sheet or evaluation sheet.

1.2. Lovaas Method

This method [4] is a behavioral management method and trains children with language, social, academic and self-help abilities. The one-on-one intensive behavioral treatment program is customized to meet the needs of each child and family served. According to Sutadi [5] assistance is directed to give encouragement / guidance for children to succeed properly. As for type of help, a) oral: take, etc., b) physical: reach for child's hand, gesture c) body: point, d) model: exemplify, visual: glance. While the rewards are in accordance with the level of development of the child, including, a) movements: swings, lifted, b) tasting: food, drink, c) tactile: touch, touch, clap, short hug, d) audiovisual / social: praise, nods, laughter, songs, hugs. Behavioral targets that a child can achieve must be set realistically and in

accordance with the child's abilities. Do not target too high because it will ultimately make the child frustration and discouraged. (1998: 7-8).

1.3. Intelligence

Piaget over the language of Agus Cremers [6] interpret intelligence equal to intelligence, that is all ability to think and act adaptively including complex mental abilities such as thinking, considering, analyzing, menopies, evaluating, and solving problems (2008: 49) . The statement is very clear that intelligence is the whole possibility of coordination that gives the structure of ability to focus attention and to behavior as a mental adaptation to the new situation

2. Recent Development on Slope Stabilizing Piles

Children with ADHD [7] may also struggle with low self-esteem, problematic relationships and poor performance in school. Symptoms sometimes diminish with age. However, some people never completely overcome their ADHD symptoms. But they can learn strategies to be successful. While treatment will not cure ADHD, it can help cope with many symptoms. Treatment usually involves medication and behavioral intervention. Early diagnosis and treatment can make a big difference in results.

2.1 2x2 Factorial Analysis Method

This research uses experimental method, with 2x2 factorial design experiment design. Determination of groups of children (learners) who have a tendency of high and low intelligence with the use of instruments in the stages of treatment and observation notes that have been prepared by researchers. This division is done by detecting with the initial instrument and learning outcomes as well as psychological tests, obtained by the highest and lowest group. The number of each group that has a tendency of ADHD disorder is a range of 12 children. The number of samples from each treatment group were 6 children (students). Validation and reliability test results show that the normal distribution and homogeneous data. Sugiyono [8] argues that what is meant by experimental research methods is the research method used to find the effect of certain treatment on others in controlled conditions.

2.2 Technique of analysis and test of hypothesis

The analysis technique uses Pearson Product Moment (Validity) and Alpha Cronbach (*Reliability*) test. Method or type of approach used, description of qualitative and/or quantitative data, data collection procedures, and data analysis procedures. Hypothesis test with ANAKOVA ANAKOVA followed by difference test.

Table 1 Significant influence

Data of Research Result of Treatment of Back in Control Method, Lovaas Method and High or Low Intelligence Against Attention Centralization Capability

No	A ₁ B ₁	A ₂ B ₁	A ₁ B ₂	A ₂ B ₂	(A ₁ B ₁) ²	(A ₂ B ₁) ²	(A ₁ B ₂) ²	(A ₂ B ₂) ²
1	101	66	51	35	10201	4356	2601	1225
2	97	63	45	38	9409	3969	2025	1444
3	98	64	60	40	9604	4096	3600	1600
4	96	65	45	42	9216	4225	2025	1764
5	104	65	63	46	10816	4225	3969	2116
6	102	63	63	48	10404	3969	3969	2304

3. Results and Analysis

Based on the results of testing on all hypotheses to get the conclusion that there is a very significant influence is illustrated from the following table 1

Data of Research Result of Back in Control Method, Lovaas Method and High and Low Intelligence to Concentration Capability Attention.

Based on these tables can be specified criteria of test results as follows:

- a. Actor test results A. There is evidence of average treatment using the Back in Control method and Lovaas shows significant differences. This can be seen in the average value on the Learning Back in Control method is greater than the method of Lovaas with a large enough difference ie, 25 so that Back in Control method and Lovaas method is said to have significant difference.
- b. The result of factor B testing. There is sufficient evidence that the average high and low intelligence groups show significant differences. This is seen in the mean values of high intelligence groups of greater value than lower intelligence groups with a substantial margin of 34 so that high and low intelligence groups are said to have significant differences
- c. Interaction Testing. Whereas the concentration ability of ADDD children treated with intervention and intelligence method occurs significant interaction effect. This is explained at the average value by which the Back in Control method has the highest average and in the high intelligence group also has the highest average
- d. Hypothesis testing result of attention ability of ADHD children who were treated with Back in Control method and Lovaas Method in High Intelligence Group (A1B1 and A2B1). Showing sufficient evidence of the average Back in Control method and the Lovaas method in the high intelligence group showed significant differences. This is seen in the average value of the Back in Control method in the higher intelligence group greater than from the Lovaas method with a substantial difference of 34 so that the Back in Control method and the Lovaas method in the high intelligence group are said to have significant differences.
- e. Hypothesis of ADHD attention focusing ability with Back in Control method and lovaas method in low intelligence group (A1B2 and A2B2). It shows that the average evidence of the Back in Control method and the Lovaas method in the lower intelligence group shows significant differences. This is seen in the average value of the Back in Control method in the lower intelligence group of greater value than from the Lovaas method with a substantial difference of 13 so that the Back in Control method and the Lovaas method in the lower intelligence group are said to have significant differences. This means the Back in Control method of lower intelligence is better than the Lovaas method.
- f. Hypothesis testing of ADHD child attention concentration results treated by Back in Control method in high and low intelligence groups (A1B1 and A1B2). There is sufficient evidence that the average high intelligence group and low intelligence on the Back in Control method show significant differences. This is seen in the average high intelligence group values in the Back in Control method of greater value than from the low intelligence group with a substantial margin of 45 so that high intelligence groups and low intelligence on the Back in Control method are said to have significant differences.
- g. Hypothesis Testing Results Concentration Capability Concentration ADHD Children Who Given Treatment of Lovaas Methods In High Intelligence Groups and Low Intelligence Groups (A2B1 and A2B2). There is sufficient evidence that the average high intelligence group and low intelligence on the Lovaas method show significant differences. This is seen in the average value of high intelligence groups in the Lovaas method of greater value than the low intelligence group with a substantial margin of 45, so that high intelligence groups and low intelligence on the Lovaas method are said to have significant differences.

2.3 Discussion

The results showed that the variables of intervention method (A) and intelligence (B) had a significant influence on attention concentration ability of ADHD (Y) children after initial control. Key points in the discussion of the

results of this study include: (1) the difference in focusing of ADHD child's attention between those treated with Back In Control method and those treated with the Lovaas method in the SD Inclusive; (2) High and low intelligence differences on the attention ability of ADHD children in inclusive primary schools; 3) the influence of interaction between the treatment of Back In Control method, Lovaas method and high or low intelligence on focusing ability of ADHD child's attention on inclusive elementary school; (4) differences in focusing ability between ADHD children who have high intelligence and are treated with Back in Control method with high-intelligence ADHD children treated with Lovaas method in SD inclusive; (5) differences in focusing ability between low-intelligence ADHD children treated with Back in Control method with low-intelligence ADHD children treated with Lovaas method, in SD Inclusive; (6) the difference in focusing ability treated by the Back in Control method with the ability of high and low intelligence ADHD children in the Inclusive Elementary School. (7) Differences in focusing ability treated by Back in Control method with high and low intelligence ADHD children's ability in Inclusive Elementary School.

Conclusion

Based on the results of hypothesis testing with ANAKOVA followed by the difference test that his research was conducted at Bojongrenged II State Elementary School, Kosambi District, Regency. Tangerang, using the variables of treatment (intervention) and intelligence on the ability to focus attention on children ADHD, it can be concluded as follows:

- a. The result of concentration of attention of ADHD children who were treated by using Back in Control method was higher than the ability of licking attention by using Lovaas method;
- b. The outcomes of attention concentration of ADHD children with higher intelligence are better, compared to the focusing ability of the ADHD child with low intelligence;
- c. There is an interaction effect between Back in Control method of treatment, Lovaas method and high or low intelligence on ADHD child concentration ability;
- d. In the high-intelligence ADHD group of children treated by the Back in Control method, the concentration of attention is higher than the high-intelligence ADHD group treated by the Lovaas method;
- e. In groups of low-intelligence ADHD children treated by the Back in Control method, the results of attention-focused ability were higher than those of lowly intelligence ADHD children treated with Lovaas method;
- f. In the high-intelligence ADHD child group treated with Back in Control method, the outcomes of

focusing attention were higher than those of high-intelligence ADHD group treated with Lovaas method

- g. In the low-intelligence ADHD child group treated with the Lovaas method, the child's attention rate was lower than the low-intelligence ADHD boy treated with the Back in Control method.

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References

- [1]. Abdurrrhman Mulyono (2007), *Mengenal Pendidikan Inklusif*, (Pascasarjana, Universitas Negri Jakarta
- [2]. Bodenhamer. Gregory, (1988), *Back In Control* Pretince Hall Press, New York.
- [3]. Rudi Sutadi at all, (1998) *Pelatihan tatalaksana perilaku (metode Lovaas) dan Compic pada penyandang Autisme*, (Jakarta, yayasan autisma IndonesiaPiaget.J.(1988) *Antara Tindakan dan Pikiran*, alih bahasa oleh Agus Cremers cet ke 2 (Jakarta, Gramedia, 2008
- [4]. <http://ijp.mums.ac.ir>
- [5]. Sugiyono,(2008) *Metode Penelitian*, Bandung Alfabeta
- [6]. Asra & Sumiati, (2008), *Metode Pembelajaran*, Bandung, Wacana Prima,
- [7]. Muhammad, (2008) *Psikologi Pembelajaran*, Bandung, Wacana Prima
- [8]. Baihaqi MIF & Sugiarm M, (2006) *Memahami Anak ADHD*, Bandung Rafika Aditama.
- [9]. Barnabib Imam, (1984) *Filsafat Pendidikan*, Yogyakarta, FIP, IKIP
- [10]. B.Lahey, & Rowland. A.(1999) *Epidemologic Issues in ADHD (ADHD Workshop)*, Retieved Juni, www.cde.gov/ADHD/ncbddd/adhd_dapedi.htm.
- [11]. Budiyanto, (2003) *Pendidikan Anak Autis pada Sekolah Inklusif*, Surabaya UNESA.
- [12]. Copple Carol And Bredekamp Sue., (2006), *Basics of Developmentally Appropriate Praticce (DAP)*, Washington DC, Motal Association for education of young children
- [13]. [putrasyamsuri.blogspot /.../konseling-kelompok-untuk-anak-adhd](http://putrasyamsuri.blogspot.com/.../konseling-kelompok-untuk-anak-adhd)
- [14]. Delors. Jarques. (2002) *Pendidikan untuk Abad XXI*, UNESCO, Jakarta, Publising, Depdiknas
- [15]. Delphie. Bandhi Layanan perilaku Anak Hiperaktif , Yogyakarta, Intan sejati, 2009
- [16]. digilib.petra.ac.id/.../jiunkpe-ns-s1-2008-31403361-9052-hanurda-chapter
- [17]. Depdiknas, *UU RI No. 20 Tahun 2003 Tentang Sistem Pendidikan Nasional*, Jakarta, Depdiknas
- [18]. edwi.dosen.upnyk.ac.id/PSISOS.3.doc
- [19]. E Enet. *Asia News Letter*, UNESCO, 2008.
- [20]. Friendly Marilyn, (2005) *Special Education*, Boston New York San fransisco, Pearson Education.
- [21]. Good Cannon B, (2001), *Optimiting Your Child's Talent*, Jakarta, Buana Ilmu Populer.
- [22]. Hadi Setia Tunggal, (2005) *UU Perlindungan Anak*, Jakarta Harvarindo.
- [23]. Hodder & Stoughton, *Child Care & Education*, London, First published, 1999.

- [24]. Isjoni, (2007) *Cooperative Learning*, Alfabeta, Bandung.
- [25]. Jamaris Martini, (2009) *Kesulitan Belajar Perpektif, Assesmen dan Penanggulangannya*, Jakarta, Yayasan Penamas Murni.
- [26]. Jamaris Martini, *Perkembangan dan Pengembangan Anak Usia Taman Kanak-Kanak*, Jakarta, PPS Universitas negeri Jakarta(UNJ), 2004.
- [27]. J. Piaget (1988) *Antara Tindakan dan Pikiran*, alih bahasa oleh Agus Cremers (2008 cet ke 2 Jakarta, Gramedia,
- [28]. James D, Russel, (1974), *Moduler Instrution*, Minneapolis, Burgess Publishing Company
- [29]. Ki Hajar Dewantara. (1977) *Pendidikan & Kebudayaan*, M Yogyakarta ajelis Luhur Persatuan Taman Siswa.
- [30]. lifestyle.okezone.com/read/2010/01/.../hiperaktifkah-anak-anda
- [31]. Muhidin Syah, (1999) *Psikologi Pendidikan*, Bandung Rasda.
- [32]. Martin Grant, L, (1998) *Terapi untuk Anak ADHD*, Jakarta, Bhana Ilmu Populer.
- [33]. Moleong. Lexy J. (2006), *Metodologi Penelitian Kualitatif*, Bandung, PT Remaja Rosda Karya.
- [34]. Mudyahardjo, (2001) *filsafat Ilmu Pendidikan*, Bandung, Rosda Karya.
- [35]. Napitupulu WP, (1999), Depdiknas, *Hak Asasi Manusia*, Jakarta, Depdiknas.
- [36]. Pusat bahasa Depdiknas, (2003) *Kamus Bahasa Indonesia*, Jakarta, Balai Pustaka.
- [37]. Samsul Bachri Thalib, (2005), *Psikologi Perkembangan*, Makasar, Universitas Negeri Makasar (UNM).
- [38]. Santrock. John W (2008) *Psikologi pendidikan, edusi kedua* Jakarta, Kencana.
- [39]. Saputra Dwijo, (2003) *Biarkan Anak Bicara*, Jakarta, Replubika.
- [40]. Seels Barbara. B & Rickey Rita. C (1994), Jakarta *Teknologi Pembelajaran*, Universitas Negeri Jakarta.
- [41]. Semaiwan Conny, R. (1997), *Prosfektif Pendidikan Anak Berbakat*, Jakarta, Grasindo.
- [42]. Semaiwan Conny, R. (2002), *Landasan Pembelajaran Dalam Perkembangan Manusia*, jakartaCHCD
- [43]. Semaiwan Conny, R. (2007), *Catatatn Kecil Tentang Penelitian dan Pengembangan Ilmu Pengetahuan*, Jakarta, Lencana.
- [44]. Seefeld Carol, (1998) *Continuing Issues in Early Childhood Education*, New Jerscy, Columbus. Ohio Merrill an imprint of Prentice Hall.
- [45]. Smith David, J. (2006), *Inklusif Sekolah Ramah Untuk Semua*, Bandung, Nuansa.
- [46]. Sukmara Dian, 92007) *Implementasi Life Skill dalam KTSP*, Bandung, Mughni Sjahtera.
- [47]. Suparta Mumdzier, (2008), *Islamic Multicultural Education.*, Al-ghajali, Jakarta
- [48]. Suyanto Slamet, (2005), *Konsep Dasar PAUD*, Jakarta, Depdiknas
- [49]. Syah Muhibin, (1999), *Psikologi belajar*, Jakarta, PT raja Gravindo Persada.
- [50]. Syah Muhibin, (1999), *Psikologi Pendidikan*, Bandung Rasda
- [51]. Rakhmat Jalaludin, (2006) *Belajar Cerdas*, Bandung, Mizan learning Centre.
- [52]. Republika, (2003) *Biarkan Anak Bicara*, Jakarta, Republika.
- [53]. Redja Muhdyihardjo. (2001), *Filsafat Ilmu Pendidikan*, Bandung, Rosda.
- [54]. Ronnie Dani, (2006), *The Power Of Emotional & Adversity Quotience for Feachers*, Bandung, Hikmah
- [55]. Tim Pengembang Ilmu Pendidikan UPI, (2006) *Ilmu dan Aplikasi Pendidikan*, Intema, Bandung.
- [56]. Turnbull Rud & Shank Marilya, (2004), *Exceptional Livers, Special Education Today's Sechools*, New Yersey, Columbus, Ohio, Pearson.