

Intervention of Behavioural, Cognitive and Sex on Early Childhood's Aggressive Behaviour

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Abstract

This study aims to find out the effect of behavioural intervention, cognitive intervention, and sex intervention toward the aggressive behaviour of early childhood. The study is conducted at two non-formal institutions of Education on Early Childhood in Magelang. This study obtains the data from two experimental groups consisting of 14 early childhoods in which one group is treated by cognitive intervention and the other one is treated by behavioural intervention. This study applies factorial experimental design. The hypothesis on this study is analyzed by using "Variant Analysis". The result of this study shows that: 1) there is a significant difference on aggressive behaviour of early childhoods between male and female caused by the intervention; 2) there is an influence of cognitive and behavioural intervention toward aggressive behaviour; the change of aggressive behaviour caused by cognitive intervention is higher than behavioral intervention; 3) there is an influence caused by intervention of interaction and sex toward aggressive behaviour of early childhood.

Keywords: cognitive intervention, behavioural intervention, sex intervention, and aggressive behaviour of early childhood.

A. Introduction

Aggressive behaviour is not only a disturbing behaviour for a person, but also a harmful behaviour for environment. It is a behavioural disorder inhibiting all human growth aspects, so it influences the process of interaction and communication with environment. The previous study conducted by the writer toward the teacher of early childhood education in Magelang on December 2014 using interview technique shows that the early childhood who belongs to have aggressive behaviour having following characteristics: grabbing forcefully the toys held by other friends, injuring his/ her friends physically (slapping, pinching, throwing a toy to his/ her friends, and others), having bad language and shouting, trouble maker, being angry to his/ her teacher, biting and kicking his/ her friend or teacher, and others. Furthermore, the writer observes the non-formal early childhood education institution and gets the data as follows: 1) fighting 54%; 2) kicking 48%; 3) hitting friend 34%; 4) grabbing forcefully friend's toy 27%; 5) throwing toys 15%. Moreover, the study done by Campbell (Singh, et.al, 2007) shows that more than 14% of pre-school childhood or early childhood show a symptom of disorder behaviour. According to Hops, Beickel, and Walker (in William L.Heward & Michael D.Orlansky, 1988), there are some forms of aggressive behaviour as follow: leaving school, shouting, walking around class, disturbing others, hitting or fighting, ingnoring teacher or educator, arguing, excessive fighting, stealing, breaking class facility or property, disobeying the command, debating, dishonest, temperament, and always being lazy to accomplish the task.

Aggressive behaviour is a behaviour done by an individual by being hostile, harmful and damaged, injuring and intentionally hurting others (Christner, et.al, 2006, Sears, et.al., 1991, Berkowitz, 1993, Wiggins et.al, 1994). Based on the above opinion, basically aggressive behaviour is a behaviour that is always harmful to others, as proposed by Krahe (2005) that aggressive behaviour is done to cause negative consequences for others such as: hurting, and intentionally wounding. Those two opinions are basically similar, that aggressive behaviour done by an individual - in this study is the early childhoods - always hurts and harms to others both physically and psychologically.

Aggressive behaviour performed by the early childhood is a behaviour that is not automatically formed by itself, but it is a long process and an interaction between innate and environmental factors. According to John B. Reid, Gerald R Patterson and James Snyder (2002), the child's behaviour is indirectly influenced by family upbringing and other interactions. Focusing on above opinion, it can be stated that the child's behaviour, including aggressive behaviour, is a result of family upbringing and interaction within the family environment. This opinion is in line with Tadeshi and Felson's opinion in Barbara Krahe (2005), that interaction and the motives of parents which reflect and apply coercive behaviour (threats, corporal punishment or coercion) to control or to change their children behaviour are essentially same as the behaviour of criminals or robbers who forced his victims to obey and comply their command. Based on those two opinions, it can be concluded that

parents' parenting and parents' interaction with their children or vice versa contribute to the formation of early childhood's aggressive behavior.

According to Campbell (Singh, et.al, 2007), if children do not get an intensive treatment from educators or the parents and when they are in the age of 6 years old or more, their disruptive behavior will lead them to have aggressive behaviour. This shows that how important the early age of children is, because this period will largely determine their further developments. A similar statement is also stated by Kazdin (1994), the majority of early childhoods who have problematic behaviour on their childhood, on their adulthood they will experience problems in adapting on their various aspects of life, such as: family life, marriage, work, conjugal relationship, parenting or mentoring children in the family and so on. Family is a key factor in forming and causing changes on the children behaviour including their aggressive behaviour (John B.Reid, Gerald R Patterson and James Snyder, 2002). The factors influencing the forming of children aggressive behaviour are socio-economic status, children interaction with their parents or vice versa, parents' educational background, and so on.

According to Santrock (2002), a period of early childhood is an early stage that will determine children attitudes, values, behaviours and personality in the future. Meanwhile, according to the Early Childhood Education Forum (2004), early childhood is a golden phase for the children development, because it will determine children growth in the future. At an early age, all children potentials can be stimulated well so those will develop optimally. The optimal development of all the potential will provide a great hope for the success of the children in the future.

Children's early age is children age from being born until eight years (Sue Bredekamp, 1992). During this period, children experience progressive growth for their physical appearance, cognitive, social-emotional, moral-spiritual, language, art and creativity. The growth of early childhood's period is influenced by many factors and can be broadly classified into internal and external factors. One of the external factors is the lack of attention and guidance from their main environment, especially from their formal and non-formal education (2003).

Based on the preliminary study, it shows that male tends to be more aggressive than female, doing the things that always bothered their environment including their friends. This is in line with the findings of Segall et.al (in Berry et al, 1992, Campbell, 1990; Kucynski, Kochanska, Radke-Yarrow, & Ginius-Brown, 1987).

Based on the observation and interview conducted by the writer toward the teachers, it is found that the teachers or educators in formal and non-formal institutions give conventional and unsystematic treatments to handle the aggressive early childhood. That conventional treatment is not based on the concept and theory of handling the early childhood which use several scientific approaches. Based on those observations and interviews, the writer conducts a research on early childhood's aggressive behaviour, both male and female, which is then given intervention to reduce the aggressive behaviour by using a cognitive and behavioural approach.

B. Research Methodology

This study applies quantitative approach using 2x2 factorial experiments by level. There are three variables on this study, they are: 1) independent variables: cognitive intervention and behavioural intervention; 2) moderate variable: male and female early childhood; and 3) dependent variable: early childhood's aggressive behaviour.

The population of this study is 1.745 of the early childhood learning at non-formal educational institutions (pre-school). The subjects of this study are 14 children aged 4-5 years old who behave aggressively. This study applies Purposive Non Random Sampling to decide the sample of the study.

This study obtains the data from: 1) observation guidance on early childhood's aggressive behaviour; and 2) observation to determine the sex. To make the observation guidance to uncover the aggressive behaviour of the early childhood, the writer compiles it based on the theory of Bandura (Kim Fong Poon-McBrayer, Ming-Gon John Lian, 2002). To collect the data, this study uses time sampling techniques or sampling interval (Scott, 2006). The instruments used for early childhood's aggressive behavior have been analyzed to determine its validity. The values of the correlation coefficient obtained for each item is compared to the value of the correlation coefficient in r table (r_t) on alpha, $\alpha = 0.05$.

The data analysis used to test the hypothesis is Variant Analysis two ways with F test at a significance level of $p = 0.05$. The analysis then is displayed on a computer using SPSS program.

C. Finding and Discussion

1. Finding

Firstly, the data of this study is analyzed descriptively to find out the mean of pre-test and post-test score of early childhood's aggressive behaviour and categorize it into: very high, high, and rather high. The detail of the mean of pre-test and post-test score of early childhood's aggressive behaviour is displayed on the following table (look at table 1).

SEX	INTERVENTION	MEAN		CHANGE
		PRE-TEST	POST-TEST	
MALE	COGNITIVE	34.20	25.40	-8.80
	BEHAVIOURAL	33.75	31.00	-2.75
	TOTAL	34.00	27.89	-6.67
FEMALE	COGNITIVE	32.50	23.50	-9.00
	BEHAVIOURAL	33.00	26.33	-6.67
	TOTAL	32.80	25.20	-7.60
	COGNITIVE	33.71	24.86	-8.86
	BEHAVIOURAL	33.43	29.00	-4.43

Table 1. The Mean of Pre-test and Post-test Score of Early Childhood's Aggressive Behaviour

Based on the table 1, it shows that both male and female early childhood's aggressive behaviour post-test score is smaller than their pre-test score (male: pre-test = 27.89 and post-test = 34.00, while for female: post-test = 32, 68 and pre-test = 25.20), so it can be concluded that the cognitive intervention and behavioural intervention can reduce the early childhood's aggressive behaviour. This is in line with the result of analysis of the effects of cognitive intervention and behavioural intervention model toward early childhood's aggressive behaviour; the male post-test score with cognitive intervention decline compared to pre-test score, and the female post-test score with behavioural intervention decreased compared to pre-test score.

The hypothesis testing of this study uses Variant Analysis (ANAVA) two-ways which is begun by prerequisite test analysis that is normality test and homogeneity variance test. The normality test of this study uses "Kolmogorov-Smirnov Test", with the result is 0.975, in which $p = 0.0298$. Wherefore, $p > 0.05$, its meaning is significant, it means that the early childhood's aggressive behaviour is in normal condition. Furthermore, for the homogeneity variance test of this study uses "Levene's Test of Equality of Error Variances", which resulting as follows: 1) the data pre-test $F = 0.692$, $p > 0.05$, which means homogeneous; 2) the data post-test $F = 0.640$, $p > 0.606$ which means homogeneous. The further analysis can be done based on these results of normality test and homogeneity variance test.

The result of data analysis of hypothesis test of this study is displayed on the following table (look at table 2).

Source	Dependent Variable	Sum of Square	Df	F	Sig. p
Sex	Pre-test	4.677	1	3.882	> 0.08
	Pos-test	55.419	1	32.412	< 0.05
	Change	13.205	1	16.071	< 0.05
Intervention	Pre-test	0.002	1	0.002	> 0.97
	Pos-test	55.419	1	53.459	< 0.05
	Change	54.764	1	66.650	< 0.05
Sex - Intervention	Pre-test	0.703	1	0.584	> 0.46
	Pos-test	5.965	1	5.754	< 0.05
	Change	10.764	1	13.100	< 0.05

Table 2. The Effect of Intervention and Sex toward Early Childhood's Aggressive Behaviour

Based on the Variant Analysis (ANAVA) two ways, it can be concluded that: 1) there are significant differences in early childhood's aggressive behaviour between male and female as the result of the intervention given, it can be seen from the post-test that shows 32.412 with $p < 0.05$ and before intervention given, there is no difference between the male aggressive behaviour and the female, as shown the value of $F = 3882$, with $p > 0.05$. This results are strengthened by the significant change of aggressive behaviour level as shown by the value of F as 16.071 with $p < 0.05$; 2) There is an effect of cognitive intervention and behavioural intervention toward early childhood's aggressive behavior as shown by the value of F at post-test = 53 459, $p < 0.05$, while in the pre-test, there is no difference in early childhood's aggressive behavior between the group given cognitive intervention and behavioural intervention ($F = 0.002$, $p > 0.05$). This is strengthened by the significant rate of change after giving intervention, $F = 66.650$ with $p < 0.05$. The analysis shows that the change of children's aggressive behaviour which is given by cognitive interventions is higher than given by behavioural intervention (the decrease of aggressive behaviour through cognitive interventions is 8.86; whereas the decrease of aggressive behaviour after through behavioural intervention is 4.43); 3) there are differences of early childhood's aggressive behaviour due to the influence of interaction intervention and sex toward early childhood's aggressive behaviour as shown on the value of $F = 5754$, $p < 0.05$, while the value of F pre-test = 0.584, $p > 0.05$, which means there is no difference of early childhood's aggressive behaviour before giving intervention. These result is supported by a significant change rate as shown by the value of $F = 13,100$, $p < 0.05$

The result of analysis that shows the differences on male and female early childhood's aggressive behaviour after giving intervention is supported by the result of descriptive analysis. It shows that after giving the intervention, the female aggressive behaviour's mean is 25.20, and the mean of male aggressive behaviour is 27.89. In contrast, before giving intervention, the female aggressive behaviour's mean is 32.80 and for the male aggressive behaviour's mean is 34.00. The decrease of female aggressive behaviour is 7.6 % and for the male aggressive behaviour is 6.67%. Based on the result of pre-test or post-test on the descriptive analysis, it can be stated that the male early childhood is more aggressive than the female, but the change of female aggressive behaviour after giving intervention is faster than the male one.

2. Discussion

Based on the analysis above, it is found that the early childhood's aggressive behaviour is able to be minimalize by giving cognitive intervention and behavioural intervention. It is in line with the finding reported by other writers; Andriyani, Dantes, and Mudjijono who state that behavioural counselling by technique of conditioning role is able to reduce student's aggressive behaviour on the VIII grader of Public Junior High School Sawan, 2012/ 2013. This is also in line with Smith, Lochman, and Daunic's finding (2005) that shows cognitive-behavioural intervention can reduce children's aggressive behaviour.

The intervention to reduce or minimalize the aggressive behaviour is something important to do. It is based on Campbell's point of view (Singh, et.al, 2007). He states that if a child does not get intensive treatment from educators and when she/ he enters the age of 6 years above, her/ his behaviour will lead her/ him to have aggressive behaviour. This shows that the early age is an important stage since it will largely determine the child's further growth. A similar statement is also expressed by Kazdin (1994), that the majority of early childhoods who have problematic behaviour on their childhood, on their adulthood they will experience problems in adapting on their various aspects of life, such as: family life, marriage, work, conjugal relationship, parenting or mentoring children in the family and so on.

The result of this study shows that the change of behaviour as a result of cognitive intervention is higher than the change of behaviour as a result of behavioural intervention. The changes of behaviour that is based on the changes the ways of thinking as patterned in cognition is more fundamental and relatively more permanent than the changes of behaviour through imitative thing and is not based on change of mindset. Cohen (2007) suggests that cognitive intervention aims to change the behaviour by changing the perception or reasoning, especially the ways of thinking to create a reform of thought or sight

Moreover, the result of this study shows that the male early childhood's behaviour is more aggressive than the female early childhood's behaviour. This finding is in line with the finding of a study conducted by Michael Grube (2007) that the behaviour of the male children are more aggressive on their verbal behaviour than the female children. A similar study done by Joyce F. Benenson, Hassina P. Carder, and Sarah J. Geib-Cole (2008) also shows that male early childhood's physical aggressive behaviour is higher than female early childhood's physical aggressive behaviour.

Furthermore, this study has limitation based on the number of its sample; therefore, the result of this study applies only on this study's sample.

D. Conclusion

Based on the finding and discussion, it can be concluded that: 1) there is a significant difference on both male and female early childhood's aggressive behavior as a result of the intervention; 2) there is an effect of cognitive intervention and behavioural intervention toward aggressive behaviour, aggressive behaviour changes as a result of the cognitive intervention is higher than behavioural intervention; 3) there is a significant effect due to the interaction intervention and sex toward the early childhood's aggressive behaviour.

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