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**& ABSTRACT
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THE USE OF CAKE ROLL FLANNEL MEDIA TO ENHANCE THE FINE MOTOR ABILITY AMONG STUDENTS WITH CEREBRAL PALSY

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Abstract: The purpose of this study was to determine the role of the use of cake roll flannel media in improving fine motor skills of students with cerebral palsy in fifth grade SDLB (Special Elementary School) YPLB Banjarmasin, Indonesia. The method in this study was SSR (Single Subject Research) experimental method aimed at determining the magnitude of the effect of the treatment given repeatedly in a certain time. The design of this study was A-B-A and had three stages, namely the baseline 1 (A₁), the intervention stage (B) and the baseline 2 (A₂). The subject of this study was cerebral palsy grade V students at SDLB YPLB Banjarmasin. The results of the research at baseline 1 (A₁) get a mean level of 8.75 minutes, intervention stage (B) gets a mean level of 7.15 minutes, and baseline stage 2 (A₂), get a mean level of 5.84 minutes. An increase with the decreasing duration of time students use, so it can be concluded that the use of the cake roll flannel media can improve the fine motor skills of students with cerebral palsy in fifth grade SDLB YPLB Banjarmasin

Keywords: Cerebral palsy, fine motor, flannel media

1. Introduction

Cerebral palsy is a state of permanent brain damage and progressive that occurs when young (since birth) and hinder normal brain development with a clinical picture that shows abnormalities in posture and movement accompanied by neurological abnormalities such as spastic paralysis and mental disorder. The term cerebral palsy is a term used to describe a group of disorders of movement, posture, and tone that are non-progressive, chronic and vary due to injury in the central nervous system during the early period of development (Utomo, 2013: 26). So that it can inhibit the development of the movement in gross motor and fine motor skills.

Gross motor is a group of sensory stimuli (sense) by the reaction in the form of involuntary movements (motor) ability senso motoric going on their control of physical activity through the central nervous system, nerves and muscles are coordinated, while fine motor skills are focused on controlling the smooth movement of the fingers hand and wrist (Jumadillah, 2010: 11).

Fine motor skills, students are directed to do activities that move from the small muscles of the body in which most members of the body that is coordinated between the eyes with his hands or feet the whole body, especially the arms and legs (Fajariah & Wita, 2014: 28). Students cerebral palsy are often faced with various problems in the development of fine motor skills so hampered in their daily activities.

The results of the observations made by researchers on Monday, January 18, 2016 showed that students cerebral palsy in grade V SDLB YPLB Banjarmasin have a variety of problems associated

with fine motor skills, such as academic skills base is visible is a way to hold a pencil students still mistakenly impacting writing activities , Where by when students write imbalance hand muscles, so that the resulting article too firm and resulted in the passage of paper trace.

Then the problems associated with students cerebral palsy in fifth grade SDLB (Special public elementary school) YPLB Banjarmasin, Indonesia namely, the ability students. One of the problems in his coaching ability is buttoning a shirt. Where students are not only wearing a shirt in everyday life, but also wearing a button-down, so that it requires fine motor skills of students in buttoning a shirt. However, the reality in the field, how students holding buttons and buttonholes are still wrong, so it takes a long time to fasten clothes when compared to his age who are not impaired fine motor skills just 15 seconds. Various problems have been described, then there is an increased need for fine motor skills students with cerebral palsy with the aim to achieve the maximum development of the corresponding ability of students in hopes of reducing dependence with others in activities related to fine motor skills. The increase in the fine motor skills of students palsy can be done by the teacher through teaching and learning. One aspect which support the success of teaching and learning activities, namely the use of instructional media. Media that are considered suitable for the enhancement of fine motor skills students with cerebral palsy are cake roll flannel. The increase in the fine motor skills of students with cerebral palsy can be done by the teacher through teaching and learning. One aspect which support the success of teaching and learning activities, namely the use of instructional media. Media that are considered suitable for the enhancement of fine motor skills students with cerebral palsy are cake roll flannel. The increase in the fine motor skills of students with cerebral palsy palsy can be done by the teacher through teaching and learning. One aspect which support the success of teaching and learning activities, namely the use of instructional media. Media that are considered suitable for the enhancement of fine motor skills students with cerebral palsy are Cake roll flannel

Cake roll flannel is a relatively new media and engaging for students. This media uses the concept of pattern shirt with buttons and zippers kind of different in everyday life. This media is made of flannel, rectangular lined with fabric, the other side there is a section pattern flannel shirt with various colors and adhesives, fasteners, hair curler and different zippers. Media cake roll flannel as a basic training tool for improving fine motor skills due to its use closely associated with eye and hand coordination as well as the movement of the fingers. Fine motor aspects of basic skills in the use of these media is the ability to open adhesives, fasteners, hair curler and a zipper. In the measurement of fine motor will be devoted to activities of buttoning a shirt.

Buttoning shirt is an activity that is often done in daily life. Such activity requires skill and coordination of hand movements so that the latch exerts activity can strengthen the muscles of the fingers as well as train the concentration of students in addition to the highly functional training in the fine motor development period (Dini Daeng P. Sari, 1996: 72). Based on the above issues, then in this case the authors are interested in doing research with the title: " The Use of Cake Roll Flannel Media to Improve the Ability of Fine Motor Fifth Grade Students with Cerebral Palsy SDLB YPLB Banjarmasin ".

2. Purpose of the study

The purpose of this study was

- a. To determine the fine motor skills of students with cerebral palsy in grade V at SDLB YPLB Banjarmasin before using Cake roll flannel media
- b. To determine the fine motor skills of students with cerebral palsy in grade V at SDLB YPLB Banjarmasin when using Cake roll flannel media
- c. To determine the fine motor skills of students with cerebral palsy in grade V at SDLB YPLB Banjarmasin after using Cake roll flannel media.

3. Methodology

3.1 Types of research

This study used a quantitative approach because the data presented in the form of figures and analysis using statistical whereas the method used is SSR (Single Subject Research) because only focussed on one subject only. Single subject research is "research done on the subject in order to determine the magnitude of the effect of treatment on one subject repeatedly with a certain time period (Sugiyono., 2013: 2).

The design used in this study was A-B-A with 16 sessions. The initial baseline (A_1) was measured with a time period of four meetings and on this baseline students were not given the intervention (without treatment), it was used to determine the extent of students' fine motor skills through activities cerebral palsy buttoning clothes worn subject. Then the students were given the intervention (B) in the form of media use cake roll flannel in order to train the fine motor skills by doing buttoning clothes worn subject and this is done as many as eight meetings. After the intervention Guide (B), researchers measured baseline second (A_2) performed a total of four meetings and conducted to measure the fine motor skills of students through the activities of the clothes worn buttoned up the subject after a given intervention.

3.2 Time and Place of Research

The study was conducted in SDLB YPLB in Banjarmasin. Located at Jalan Yos Sudarso Gg. 66 Rt. 32, Komplek Airmantan, City of Banjarmasin, South Kalimantan. This research was conducted during six weeks, starting from January 18 until February 26, 2016.

3.3 Research subject

The subjects were students with cerebral palsy grade V SDLB YPLB Banjarmasin who have problems in fine motor skills.

3.4 Treatment procedure

3.4.1 Determining Baseline 1 (A_1)

At this stage, the first thing to do was to conditioning students to pay attention to the instruction and then the students were given instruction buttoning clothes that are worn to see the beginning of their fine motor abilities, then did vote with duration (time).

3.4.2 Intervention (B)

This stage students were given the intervention, the students were instructed to fasten clothes, but at this stage the intervention is done by using the media Cake roll flannel First, researchers will introduce and explain how to use the media Cake roll flannel When students have understood, the researchers will provide instructions for using these media. This media is carried out repeatedly in the intervention phase. If students have not been able to use the media then given assistance.

This phase also aims to investigate the influence of the media Cake roll flannel fine motor skills through activities students with cerebral palsy buttoning a shirt. Researchers conducted an assessment to the duration (time) to assess the progress of students in buttoning a shirt.

3.4.3 Determining Baseline 2 (A₂)

This stage was the stage of repetition of the baseline 1 (A₁), at this stage the students were not being treated. The first to do was to condition students and then the students were given instruction buttoning clothes worn by the subject to see the fine motor skills of the subject. The assessment conducted in duration (time) equal to baseline 1 (A₁) and intervention (B).

3.5 Data Recording Systems

According to Tawney and Gast (1984), in general there are three kinds of data recording procedures used in the study of behavior modification, ie automatic data recording, data recording with permanent products and recording of data by direct observation (Juang Sunanto, 2005: 19). Data recording with direct observation carried out to record variable data bound to the time of the incident or behavior occurred.

There are several types of recording data using direct recording procedures, namely: recording the incidence, duration, latency, and a sample interval of time (Juang Sunanto, 2005: 20). For research to be conducted using the data recording duration. In this case the researchers used a stopwatch, by pressing the start button on the event starts and press the stop button when the event was completed and agreed upon by the two observers. Recording is done to look at the fine motor skills of students with cerebral palsy in grade V SDLB YPLB Banjarmasin through buttoning a shirt.

3.6 Data analysis technique

In this study, virgin analysis technique used is descriptive statistics in the form of visual analysis chart. Sugiyono (2010: 207) explains that the statistical descriptive statistics is used to analyze the data by describing the data that has been collected.

Shape the presentation of the data in this study is in the form of graphs and tables. The graph illustrates the degree of influence of media use Cake roll flannel to smooth motoric ability students with cerebral palsy in grade V SDLB YPLB Banjarmasin. Acquisition duration of fine motor skills through activities buttoning clothes worn subject

Analysis of the data is the last stage before the conclusion. Analysis of the data in the study Single Subject Research (SSR) consists of the analysis of the conditions and analysis of inter-state. There are several important components that should be analyzed on the analysis of the conditions that length condition, inclination direction, the level of stability, rate of change, the trace data and range (Sunanto Juang et al, 2006: 68). Meanwhile, according to Sunanto Juang et al (2006: 72), the main component in inter-state analysis includes the number of variables changed, the changing trend direction and effect, change the stability and effect, change the data level, as well as data cone overlap (overlap).

4. Result and Discussion

4.1 Result

Implementation Baseline 1 (A₁) was conducted over four times to the data obtained is stable. This phase is conducted to reveal the initial capability given subject before the intervention using a flannel media rolls. Ability revealed the subject's ability to fine motor skills through activities buttoning a shirt. fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin on one session using a time of 8.75 minutes. The second session experienced a modest improvement with reduced duration of time students spend time at 8.76 minutes. In the third and fourth sessions of time spent has been stable at 8.73 minutes. Preliminary data of fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin at baseline 1 (A₁) through fasten clothes showed quite a long time,

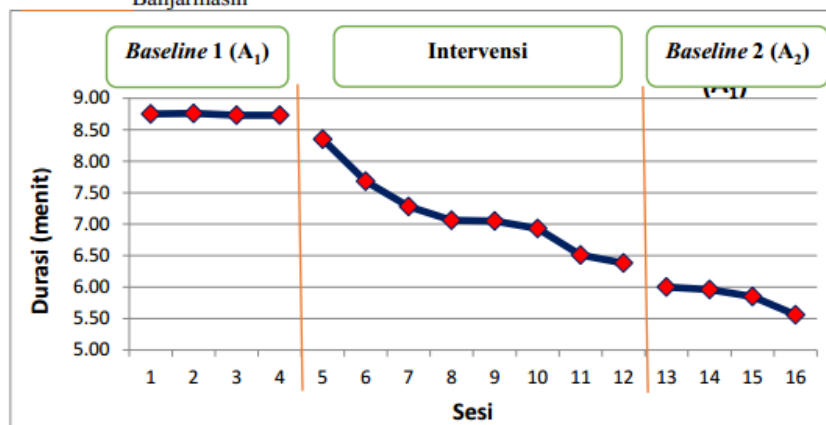
Having in mind the ability to the subject of the intervention can be given. Collecting data on interventions carried out for eight sessions. Intervention provided which uses flannel media

rolls. fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin on a session using a time of 8.35 minutes, second session with a time of 7.68 minutes, the session to three of 7.68, followed by four 7.06-minute session, the session into five 7.05 minutes, the session into six 6.93, 6.51 minute session seventh and eighth sessions of 6.38 minutes, it means an increase in the fine motor skills of students in grade V SDLB cerebral palsy YPLB Banjarmasin with visible time diminishing in use by students through activities buttoning a shirt.

While at baseline 2 (A₂) an increase in the students fine motor skills cerebral palsy grade V SDLB YPLB Banjarmasin. This stage of fine motor skills grade V student cerebral palsy SLB YPLB Banjarmasin through buttoning clothes, most of the way students enter button to hole has been able to more quickly resolve it. Fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin through buttoning up clothes in the first session and the second way students holding and inserting fasteners into the holes getting good looks and quick duration of time to complete. fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin in one session using a 6-minute, second session increased with decreasing duration of time students spend at 5.966 minutes. At the third session of 5,

So that the data of the fine motor skills of students cerebral palsy in grade V SDLB YPLB Banjarmasin, presented in the following graph:

Graph 1. Graph Capabilities Fine motor students Cerebral Palsy Grade V SDLB YPLB Banjarmasin



Later in the data analysis in this study can be seen from the analysis in the Inter Analisis Conditions and Conditions, the following are summary results of visual analysis in inter-state conditions and fine motor skills student cerebral palsy grade V SDLB YPLB Banjarmasin.

Table 1 Results of visual analysis in conditions ability fine motor palsy students cerebral palsy in grade V SDLB YPLB Banjarmasin

No.,	Condition	A1	B	A2
1	Long condition (condition Length)	4	8	4
2	Estemasi tendency towards (estetemasi of tred direction)	— (=)	— (+)	— (+)
3	The tendency for stability (stability trend)	Stable (100%)	variables (62.5%)	Stable (100%)






4	Trace data (data path)			
		(=)	(+)	(+)
5	Level of stability and range (adng stability level range)	Stable (8.73 to 8.76)	variables (6.38 to 8.35)	Stable (5.56-6)
6	Changes in the level (level change)	(8.73 to 8.73) (=)	(6.38 to 8.35) (-1.97) (+)	(5.56-6) (-0.44) (+)

Table 2. The results of an analysis of the condition of the fine motor skills of students in grade V SDLB cerebral palsy YPLB Banjarmasin

No.	Compared Conditions	B / A_1	A_2 / B
1.	The number of variables that are changed	1	1
2.	Trends change direction and effect	 (=)	 (+)
3.	Changes stability	Stable to variables (8.73 to 6, 38) (-2.35) +	Variables to Stable (6.38 to 5.56) (-0.82) +
5.	percentage overlap	12.5%	0%

4.2 Discussion

MMY is a fifth grade student cerebral palsy SDLB YPLB Banjarmasin in this study. cerebral palsy is paralysis of the brain caused by an accident, injury or nervous system diseases that result in impaired motor function or posture. So that it can inhibit the development of the movement in gross motor and fine motor skills

Focused on the fine motor control smooth movement of the fingers and wrist. Fine motor skills of students can be obtained through the learning process from infancy to adulthood, as well as formal and informal. So that parents, teachers and schools are required to assist students in developing fine motor skills, because this capability will have an impact on daily life activities.

One effort to improve fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin, then carried out studies using instructional media. As noted According Oemar Harmalik in Meimulyani and Caryoto, instructional media are methods and techniques used to streamline communication and interaction between teachers and students in the educational process and teaching. Instructional media used in this study is cake roll flannel. Media Cake roll flannel as a training tool for improving fine motor skills. This media uses the concept of wearing clothes with buttons and zippers types are different, so their use is closely linked to the eye and hand coordination as well as the movement of the fingers.

The study of fine motor skills student cerebral palsy grade V SDLB YPLB Banjarmasin using Flannel media Tartine through up buttons to increase with decreasing duration. Mean level at each stage is the baseline (A) and intervention (B).

Mean levels of fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin through shirt buttoned at the baseline stage 1 (A_1). Where this phase is the initial data collection capabilities without treatment. Then proceed ketahap intervention (B) a total of eight sessions, where this stage, given the treatment in advance before. The treatments were flannel media rolls

to students in grade V SDLB cerebral palsy YPLB Banjarmasin to practice fine motor skills. Fine motor skills assessment students with cerebral palsy in grade V SDLB YPLB Banjarmasin is through up buttons using the time duration. At this stage the fine motor skills of students has increased, visible when the student buttoning a shirt with a duration of time is faster than the baseline phase 1 (A_1). The next stage is to collect baseline data 2 (A_2) with the intention of taking control of the intervention phase (B) making it possible to deduce the functional relationship between independent and dependent variables. Fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin through activities increased compared with the intervention phase (B).

Mean levels before and after using a flannel media rolls than it means is increased with decreasing duration of time spent by students namely from 8.74 minutes to 5.84 minutes. As described above, based on calculations that have been done in the form of tables and line graphs using the design of A - B - A, it can be deduced that there is an increase in the fine motor skills of students palsy grade V SDLB YPLB Banjarmasin by using cake roll flannel media

5. Conclusion

The results of the data of fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin obtained from the research that has been done is as follows.

- a. Fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin at baseline phase 1 is still low with duration of use.
- b. Fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin at the stage of intervention increases with duration of use than in the baseline phase 1.
- c. Fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin at baseline phase 2 increased with duration of use than the intervention phase,

As the statement above, the flannel media rolls can improve fine motor skills grade V student cerebral palsy SDLB YPLB Banjarmasin

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Reference

- AHP, Utomo. (2013). Type Spastic Cerebral Palsy Childhood Diplegia In Two Years. (online: <http://download.portalgaruda.org/article.php?article=122521&val=5502>). Accessed on June 7, 2015
- Daeng Sari, P. (1996). Early Teaching Methods in kindergarten. Department of Education
- Fajariah, pm. Stacking Blocks 2014 Games Hide For Improving Fine Motor Cerebral Palsy in Children Grade III SDLB YPLB Banjarmasin. Essay
- Jumadillah. (2010). Upgrades sebagai Fine Motor Starters Through Preparation Writing Skills In Children Tunagrahita Light Collage Grade 1 in SLB Sragen Year 2009/2010. (online: <http://eprints.unc.ac.id/2536/1/175662601201109281.pdf>. 2015.) (Accessed on 7 June 2015)
- Meimulyani and Caryono. (2013). Adaptive Learning Media. Jakarta: Luxima
- Sugiyono. (2013). Quantitative and Qualitative Research Methods and R & D Bandung: Alfabeta.
- Sunanto, Juang et al. (2005). Introduction to Research With Single subject. Center for Research on International Cooperation in Educational Development (CRICED): University of Tsukuba.
- Sunanto, Juang, et al. (2005). Research with Single Subject. Bandung: UPI Press.