THE APPLICATION OF TOKEN ECONOMIC BEHAVIORAL MODIFICATION TECHNIQUE TO INCREASE THE ABILITY OF ADDING UP 0-50 FOR AUTISTIC CHILDREN IVth GRADE IN SKH AL KAUTSAR CILEGON BANTEN

Siti Dwi Jumiati[1], Dr. Hj. Isti Rusdiyani, M.Pd[2], Ratih Listyaningtyas, M.Pd[3]

[1]Extraordinary Education, Teacher Training and Education Faculty, Sultan Ageng Tirtayasa University, Serang City, Indonesia
Email Author 1: sitidwi.jumiati.sdj@gmail.com
[2]Extraordinary Education, Teacher Training and Education Faculty, Sultan Ageng Tirtayasa University, Serang City, Indonesia
Email Writer 2: istirusdiyani@yahoo.com
[3]Extraordinary Education, Teacher Training and Education Faculty, Sultan Ageng Tirtayasa University, Serang City, Indonesia
Email Author 3: ratih.listyaningtyas@yahoo.com

Abstract

This research is motivated by the low ability of children to add 0-50. The purpose of this study was to determine the increase in the ability to add 0-50 autistic children using the token economic. The research method used is the experimental method using the Single Subject Research (SSR) approach and using the A-B-A research design. The target behavior in this study is to add 0-50. The data collection technique in this study used a test given at baseline-1, intervention, and baseline-2 in 5 items. The data obtained were analyzed using analysis between conditions. Based on the results of the research data analysis, it was found that there was an increase in the ability to add 0-50 autictic children in class IV using the token economic behavior modification technique at SKh Al Kautsar Cilegon Banten. The results of the mean level in the baseline-1 were 43,33% and the increase after the intervention of token economic behavior modification tehnique was 74,17%. This shows that there is an increase in the ability to add 0-50 autistic children in class IV using the token economic behavior modification technique at SKh Al Kautsar Cilegon Banten.

Keyword : Token Economic, Ability to Add 0-50, Autistic Children

INTRODUCTION

Children with special needs are children who are unique compared to children in general. The use of the term children with special needs in the community is still not very popular. There are several terms that mention such as children with disabilities, extraordinary children, children with disabilities and currently known as children with special needs. This terms appears in line with the development of a new paradigm in the world of extraordinary education in Indonesia.

According to Darmawanti and Jannah (2004:15) children with special needs are children who in the process of growth experience physical, intellectual, sociol or emotional abnormalities or deviations compared to children in general so that they require special education services. Special

education has special needs to support children's lives.

In the world of extraordinary education we have known various kinds of children with special needs. One of them is an autistic child. According to Yuwono (2009: 26) autistic is a neurobiological development disorder that is very complex / heavy in a long life, which includes disturbances in aspects of social interaction, communication and language, and behaviors and emotional disturbances and sensory perceptions even in the motor aspects. Based on this understanding, it can be seen that autistic children have disorders of neurobiological development that affect brain function and affect the way children learn. Like math, language and other lessons.

Mathematics is a subject given to all students from elementary to tertiary education. Mathematics is very important in daily activities such as buying and selling and other activities. However, it is not uncommon for mathematics to be considered difficult for students, including for autistic children. Therefore, a teacher must be innovative both in the delivery and the techniques used to make math lessons fun for students.

An economic token technique or chip savings is one of the behavior modification techniques that gives one piece / sign / signal when the target behavior appears. Then later the pieces can be exchanged for the desired object or object. This technique is used to improve, reduce and maintain various behaviors.

Based on a preliminary study conducted by researchers when the PPLK activities at SKh Al Kautsar Cilegon Banten there was one autistic child whose ability to count the sum was still lacking. This is due to the lack of strong motivation to practice, the lack of interest in the rewards given during learning and the lack of application of special techniques used for special needs students.

The previous relevant research was carried out by Rizky (2014) who concluded that there were significant differences in the ability of child addition before and after being given token economic techniques. Research conducted by Luthfa (2015) also concluded that the application of economic token techniques was effective in improving mathematics learning outcomes. The previous relevant research was also carried out by Millersmith (2013) who concluded that the application of economic tokens and mathematical manipulation was effective in calculating and adding up to children with low intellectual barriers.

Based on this background, the researchers will conduct research on the use of token economic behavior modification techniques to increase the ability to add 0-50 to autistic children in class IV at SKh Al Kautsar Cilegon Banten.

METHOD

A. Research Methods

The research method that will be used by researchers in this study is the

experimental method, because this research was conducted with the aim to see the consequences of a treatment. According to Sugiyono (2009: 107) said that, experimental research methods are research methods that are used to find the effect of certain treatments on others under controlled conditions.

To increase the ability to add 0-50 in this study used the experimental design using a single subject approach, or known as Single Subject Research (SSR) to determine the effect of a treatment / intervention given to individual subjects. According to Sunanto, et al (2006: 12) stated that, in the design of a single subject measurement of the dependent variable or target behavior is done repeatedly with a certain time such as a week, a day, or an hour.

B. Research Design

Research design with a single subject that will be used by researchers in this study using the A-B-A design. According to Sunanto, et al (2006: 61), said that the design of A-B-A is one of the development of the basic design of A-B, the design of A-B-A has shown the existence of a causal relationship between the dependent variable and the independent variable. What is meant here is the baseline condition before and after being given treatment / intervention. The A-B-A design can be seen in the graph below:
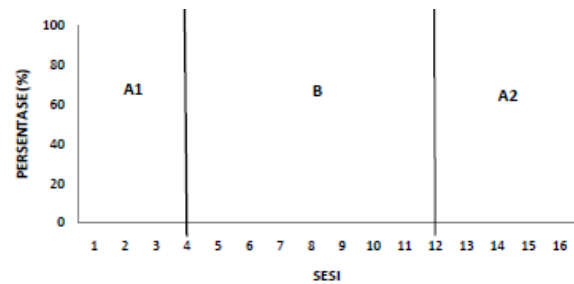
Graph 3.1

A-B-A Design

In this study the baseline-1 (A1) phase was the initial condition of the subject in adding 0-50 before receiving treatment / intervention. The intervention phase (B) is the condition of the subject given treatment / intervention. In this case the intervention given is a technique of repeatedly modifying token economic behavior to the subject. Whereas in the baseline-2 phase (A2) is the repetition of the baseline conditions as evaluation material to determine the extent to which the influence of independent variables on the dependent variable.

C. Place and Time of Research

1. Place of Research

This research was conducted at the addressable Al Kautsar Cilegon Special School (SKh) on Jalan Arjuna Kav. Blok J 101-102, Bendungan, Kec. Cilegon, Cilegon City, Banten Province.

2. Time Research

The time of the study takes place in the middle of the odd semester of the 2018/2019 academic year. Research will be planned from October to November.

D. Research Variables

1. Bound Variables

The dependent variable in this study is the ability of autistic children to add 0-50. In this study, the subject was the ability of the subject in terms of summing up independently or without help from the researcher. The unit of measurement used in this study is to use a percentage that is often used to measure behavior in the academic field.

2. Free Variables

The independent variable in this study is the token economic behavior modification technique. The steps or procedures for implementing a token economic behavior modification technique are setting behavior that will be changed or improved, determining the items to be used as pieces, assigning values for each activity, assigning prizes as chip exchangers, seeing the subject's initial condition adding up 50, make contact activities, record events that arise, guide the subject to exchange pieces, evaluation.

E. Data Collection Techniques

In this study researchers used tests in data collection techniques. The test used in this study is a test of learning outcomes (achievement test). According to Purwanto (Sidik, 2013: 34) said that the learning outcomes test (achievement test) is a test that is used to assess the results of lessons that have been given by the teacher to students, or by lecturers to students, within a certain period of time.

F. Data Analysis Techniques

The analysis technique used by researchers in this study was to use visual analysis. According to Sunanto, et al (2006: 96) said that, in studies with a single case the use of complex statistics is not done but rather uses simple descriptive statistics. According to Sugiyono (2012: 207) said that, descriptive statistics are statistics that are used to describe or describe the data collected as it is without intending to make conclusions that apply to the public.

1. Analysis in Conditions

According to Sunanto, et al. (2006: 107) says that, in condition analysis is analyzing data changes in one condition such as base line conditions or intervention conditions, while the components to be analyzed include six components, namely the length of conditions, trend direction, stability tendency, data trace, stability level range and level of change. In this study researchers used four sessions in baseline-1 (A1) conditions, eight sessions in the intervention condition (B). and four sessions under basellne-2 (A2).

2. Inter-Condition Analysis

Inter-condition analysis is a change in data between one condition and another condition, for example a baseline condition (A) into an intervention condition (B). The components in the analysis between conditions include the number of variables, changes in the direction and effect trends, changes in the tendency of stability, changes in data levels, overlapping data.

RESULT AND DISCUSSION
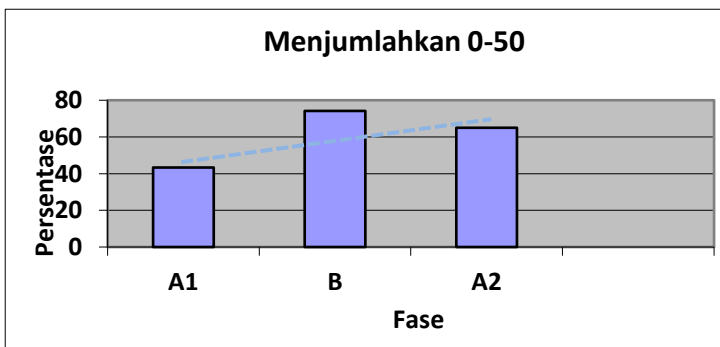
Graph 4.1

Mean Levels in Baseline-1 (A1), Intervention (B), and Baseline-2 (A2)

Based on the results of research that has been done, the ability to add 0-50 average percentage or mean level of the subject in the baseline-1 (A1) phase is 43.33% because this phase is a natural condition of the subject where the subject has not been given treatment or intervention in the form of using token economic behavior modification techniques to increase the ability to add 0-50. In the intervention phase (B), the average percentage or mean level obtained is 74.17% because in

this phase the subject is given treatment or intervention in the form of using token economic behavior modification techniques to increase the ability to add 0-50. Whereas in the baseline-2 phase (A2), the average percentage or mean level obtained is 65% because in this phase it is a natural condition of the subject after being given treatment or intervention in the form of using token economic behavior modification techniques. Based on these data, it can be concluded that the use of token behavior modification techniques for economic ability to add autistic children increases. This is indicated by a change in the larger data in the A2 phase towards phase A1 which is marked by an increasing trend line between conditions A1 and A2.

CONCLUTION

Based on the results of research and discussion it can be concluded that the ability to add 0-50 autistic children in Al Kautsar Special School (SKh) can be increased by using token economic behavior modification techniques. This is indicated by an increase in the average percentage or mean level of the baseline-1 (A1), intervention (B), and baseline-2 (A2) phases, namely 43.33%, 74.17% and 65%. Thus the results of this study can answer the hypothesis that the use of token economic behavior modification techniques can increase the ability to add 0-50 autistic children in grade IV SDLB at SKh Al Kautsar.

SUGGESTION

Based on the conclusions of this study, the authors propose a number of suggestions as follows:

1. For Teachers

    Token economic behavior modification techniques can be used as a special alternative technique that can be used to foster interest in learning to count students so that it can increase the ability to add 0-50

2. For Parents

    With the implementation of token economic behavior modification techniques can continue learning to calculate summing at home so that students' abilities can develop well, and can be useful in community life.

3. For Further Researchers

    As one of the research references related to token economic behavior modification techniques and can be developed into further research.

REFERENCES

Abdurrahman, Mulyono. (2003). *Pendidikan Bagi Anak Berkesulitan Belajar*. Jakarta: PT. Rineka Cipta

Arikunto, Suharsimi. (2010). *Prosedur Penelitian Suatu Pendekatan Praktek*. Jakarta:Rineka Cipta

Arikunto, Suharsimi. (2013). *Manajemen Penelitian*. Jakarta: Rineka Cipta

Aziz, Safrudin. (2015). *Pendidikan Seks Anak Berkebutuhan Khusus*. Yogyakarta: Gava Media

Darmawanti dan Jannah. (2004). *Tumbuh Kembang Anak Usia Dini dan Deteksi Dini pada Anak Berkebutuhan Khusus*. Surabaya: Insight Indonesia

Direktorat PKLK. (2015). *Pedoman Pembelajaran Pendidikan Jasmani Adaptif Bagi Peserta Didik Autis*. Jakarta: UNJ

Delphie, Bandi. (2009). *Pembelajaran Anak Berkebutuhan Khusus*. Bandung: PT. Refika Aditama

Jamaris, Martini. (2014). *Kesulitan Belajar Perspektif, Asesmen dan Penanggulangannya*. Bogor: Ghalia Indonesia

Luthfa, dkk. (2015). Efektivitas *token economic* dalam meningkatkan hasil belajar matematika anak tunagrahita ringan kelas V di SDLB Muhammadiyah Golokan Gresik. *Jurnal Pendidikan Khusus*. 7(3). [*online*]. https://jurnalmahasiswa.unesa.ac.id. Diakses pada tanggal 4 April 2018

Mash and Wolfe. (2015). *Abnormal Child Psuchology*. USA: Wadsworth

Matson, Johnny. (2009). *Applied Behavior Analysis for Children with Autism Spectrum Disorder*. USA: Springer Science + Business Media

Millersmtih, *et al*. (2013). The use of token economy and a math manipulative for a child with moderate intelectual of disabilities. *International Journal of Basic and Applied Science*. 1(3), 634-640. [*online*].http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.416.4462&rep=rep1&type=pdf. Diakses pada tanggal 12 Mei 2018

Nani, Euis. (2013). *Pendidikan Anak Berkebutuhan Khusus*. Bandung: CV. Amanah Offset

Purwanta, Edi. (2015). *Modifikasi Perilaku*. Yogyakarta: Pustaka Pelajar

Ristekdikti. (2016). *Undang-Undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional*. [*online*]. https://kelembagaan. Ristekdikti.go.id. Diakses pada tangga 19 Agustus 2018

Rizky, dkk. (2014). Teknik *token economic* terhadap kemampuan penjumlahan pada anak tunagrahita ringan di yayasan sosial dan pendidikan khusus SD Putra Harapan Sidoarjo. Jurnal Pendidikan Khusus. 6(6). [*online*]. https://jurnalmahasiswa.unesa.ac.id. Diakses pada tanggal 4 April 2018

Runtukahu dan Kandou. (2014). *Pembelajaran Matematika Dasar Bagi Anak Berkesulitan Belajar*. Yogyakarta: Ar-Ruzz Media

Sidik, S.A. (2013). *Penggunaan Permainan dengan Teman Sebaya untuk Meningkatkan Kemampuan Komunikasi Verbal Anak Autistik*. Bandung: UPI

Sugiyono. (2012). *Metode Penelitian Pendidikan*. Bandung: Alfabeta

Sunanto, Juang dkk. (2006). *Pengantar Penelitian dengan Subjek Tunggal*. Bandung: UPI Press

Tawney and Gast. (1984). *Single Subject Research in Special Education*. USA: Bell and Howell Company

Usman, Husaini dan Purnomo. (2008). *Metodologi Penelitian Sosial*. Jakarta: PT. Bumi Aksara

Wijayani, N.A. (2016). *Buku Ajar Penanganan Anak Usia Dini Berkebutuhan Khusus*. Yogyakarta: Ar-Ruzz Media

Yuwono, Joko. (2009). *Memahami Anak Autistik*. Bandung: Alfabeta

Yuwono, Joko. (2015). *Komunikasi dan Bahasa Anak Autistik*. Bandung: Alfabet