



## Effectiveness of Economic Token Techniques to Reduce Aggressive Behaviour in ADHD Children in SLBN Merangin

Witri Epilia<sup>1</sup>, Marlina<sup>2</sup>

<sup>1</sup> (Pendidikan Luar Biasa, Universitas Negeri Padang, Indonesia).

<sup>2</sup> (Pendidikan Luar Biasa, Universitas Negeri Padang, Indonesia).

Corresponding Author. E-mail:

<sup>1</sup>[witrievilia29@gmail.com](mailto:witrievilia29@gmail.com)<sup>2</sup>[lina\\_muluk@fip.unp.ac.id](mailto:lina_muluk@fip.unp.ac.id)

**Receive: 13/07/2022**

**Accepted: 23/08/2020**

**Published: 01/10/2022**

### Abstract

ADHD students are developmental disorders, attention disorders and concentration disorders, and cause excessive child behavior. Based on the problem above, students are very prominent in hitting, pushing, and pinching their friends. To reduce aggressive behavior the author uses the token economy technique so that students can reduce the aggressive behavior. This study aims to prove the effectiveness of the use of token economy techniques in reducing the physical aggressive behavior of ADHD children at SLBN Merangin. This type of research uses an experimental method using the Single Subject Research (SSR) research method, the design used is the Multiple-Baseline Across-Behaviors Design. Data collection techniques using observation and video recording. The data analysis technique uses analysis in conditions and analysis between conditions. In the form of graphic analysis, the results of economic research are effective in reducing aggressive behavior in ADHD children at SLBN Merangin.

**Keywords:** Physical aggressive behavior, reducing, ADHD students.

### Introduction

Efforts to treat children with ADHD from time to time increase in line with the development of science. This increase can be seen at least from two sides, namely in terms of preventive and curative or corrective. These efforts include early detection of child disorders, early intervention on the possibilities that will occur in child development. From the curative side, the behavior management of children with attention deficit disorder and hyperactivity is directed at curing and correcting deviant behaviors that occur in children (Marlina, 2011).

Children who come from family backgrounds with social strata have various

psychological problems, and often experience violence. Young children with low incomes and neighborhoods are more likely to experience behavioral problems than children who live in affluent or affluent conditions (Knapp et al., 2017). The form of physical attack can be in the form of hitting, pushing, kicking, pinching and so on (Fitri et al., 2016). It is feared that if this is not handled immediately, it can also have an impact on the emotional development and behavior of students at school. In addition, aggressive behavior can also affect students' academic achievement, their social interactions with teachers and peers (Susanti & Permatasari, 2020). Parents play an important role in shaping children's behavior, behavior can be interpreted

as an action or something that is done, said, which can be seen, felt and heard (Hasanah et al., 2018).

Deviant behavior is one example of negative behavior, for example aggressive behavior can occur at various ages, both children, adolescents, and adults, aggressive behavior often occurs because individuals cannot control their emotions and actions (Handayani & Hidayah, 2014).

There are several strategies in reducing aggressive behavior such as in the learning process, teaching children to express anger in verbal form, this is where children express their anger more verbally, assertiveness training can help children understand themselves and be able to express their feelings openly. Having a firm response is not aggressive (attacking) but expressing it honestly and openly, by creating an atmosphere of humor can help children in easing their emotions, humor can be done at any time. In the learning process, it can be accompanied by humor so that children are relaxed and interested in following the lesson (Marlina, 2008).

The technique used is the token economy technique, behavior modification technique by giving tokens or chips as reinforcement of positive behavior that appears. Tokens can be in the form of stickers, chips, play money, points, or cards that are easy to find (Rohmaniah et al., 2016). The token economy technique used in this study is a star sticker in the form of adding one token when the subject does not show aggressive behavior, when the subject shows aggressive behavior will not be given a star sticker.

Based on observations at SLBN Merangin, the authors found a subject who had aggressive behavior with the initials "S". Fourth grade students attend SLBN Merangin. The problems the authors found were about having and showing physical aggressive behavior in the form of physical aggressive hitting, pushing, pinching their friends during class hours, without the reason students often take aggressive behavior actions. In this study, researchers focused on reducing physical aggressive behavior, namely hitting, pushing, and pinching.

This token economy method has several advantages. According to Birnbrauer (Rahmawati,

2015) revealing the advantage of token economy is that it provides immediate reinforcement for all group members with a common tool object.

## Research Methods

This type of research used experimental method using Single Subject Research (SSR). According to (Marlina, 2021b) Single Subject Research (SSR) is a research strategy developed to describe changes in individual subject behavior. Single Subject Research (SSR) research has evolved over the last few decades to allow the analysis of various behaviors in different settings. This study uses the Multiple-Baseline Across-Behaviors Design.

This study involved a student with the initial "S" with a female gender, age 12 years old, the child was a fourth grade student who attended SLBN Merangin. And in the selection of subjects with ADHD children who have and show physical aggressive behavior hitting, pushing and pinching. This study focuses on the dependent variable of physical aggressive behavior, while the independent variable is the token economy technique.

The use of data collection tools is directly related to the technique or method of data collection. Because the use of the two terms is difficult to distinguish the application (Marlina, 2021a). Data collection techniques used by researchers are observation and video recording. Observations were carried out by researchers to find out through direct observation of physical aggressive behavior in ADHD students at SLBN Merangin.

The data collection instrument used was observation, observation using frequency data recording with observations made by seeing how many times the aggressive behavior appeared. All data that has been collected will be analyzed. The data is done by reducing aggressive behavior in children by using the token economy technique so that they know how many times the frequency occurs during the learning process.

According to (Marlina, 2021b) Data analysis technique is a very important step in research. There are two analytical techniques in this study, namely: analysis under conditions According to Thomas R. Kratochwill (Marlina, 2021b) analysis in conditions, namely analyzing data patterns in one condition in the study. Starting with the baseline phase, researchers looked for data stability before implementing the intervention, data was collected at least 3-5 sessions before

administering the intervention. According to J. D. Lane & Gast (Marlina, 2021b) analysis in research, which is followed by analysis of data between conditions when a new condition is introduced. And the second According to Gast & Tawney (Marlina, 2021b) Analysis between conditions is a comparison across adjacent conditions during the study.

## Result and Discussion

### Results

In this study, the subjects of the study were ADHD students who studied at the Merangin SLBN. The ADHD student with the initial "S" and female gender, 12 years old, the child is a fourth grade SDLB student. Based on the results of the assessment carried out by researchers, the child has aggressive behavior which is a problem for children, namely children who always disturb friends such as hitting, pushing, and pinching. The child does it for no reason and spontaneously does it.

This research was conducted in several stages, the first being the researcher conducted in-depth observations on subjects who had physically aggressive behavior towards their friends during learning. It was found that the subject's physical aggressive behavior when learning took place in the classroom, the subject suddenly attacked his friends during the learning process and resulted in his friends not concentrating while studying.

This study aims to reduce aggressive behavior in ADHD children using the token economy technique. In this study, researchers must prepare media as economic tokens such as star stickers, and also stationery equipment as exchange gifts for stars obtained by the subject. Data to calculate the number of occurrences of subjects behaved physically aggressively using frequencies obtained through direct observation. This research was conducted in 10 meetings.

The implementation of this research consists of 2 (two) stages. The first stage is baseline or what is called the condition before the intervention is given, which is done by observing the physical aggressive behavior of the subject. The second stage, namely the intervention or conditions when given treatment, where at this stage the child has been given an intervention using the token economy technique. The results obtained from each condition will be entered into

a data collection format using frequency data recording. An overview of the research results obtained, which can be seen below, as follows:

Table 2: Data on Frequency of Physical Aggressive Behavior

Days to-	Time (Day, Date)	Frequency of Physical Aggressive Behavior		
		Hit	Push	Pinch
1	Thursday, 02 June 2022	4	5	6
2	Monday, 06 June 2022	5	6	5
3	Tuesday, 07 June 2022	4	5	6
4	Wednesday, 08 June 2022	5	5	6
5	Thursday, 09 June 2022	4	5	5
6	Monday, 13 June 2022	4	4	5
7	Tuesday, 14 June 2022	3	3	4
8	Wednesday, 15 June 2022	2	4	4
9	Monday, July 18 2022	3	3	3
10	Tuesday, 19 July 2022	2	3	3

Information:  
█ Frequency Baseline  
█ Frequency Interventio

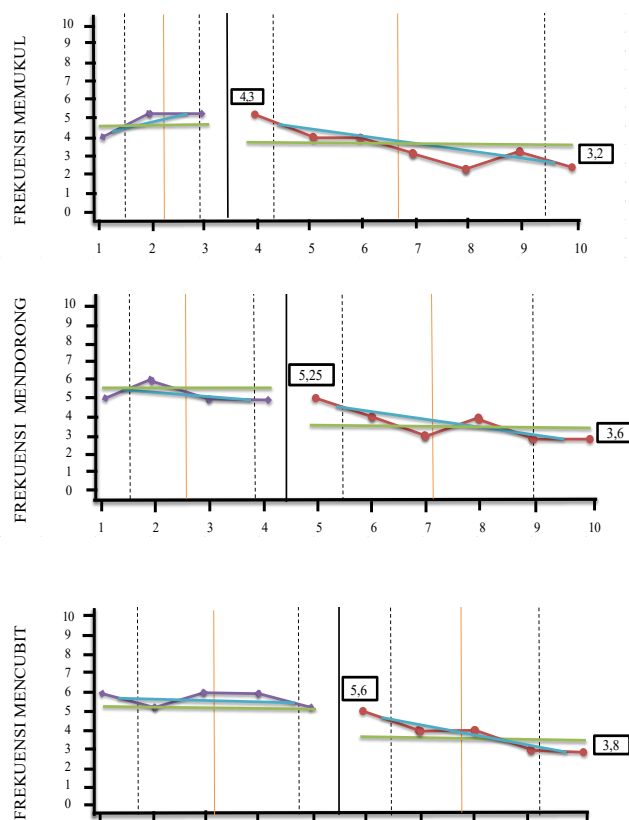


Figure 2. Visual Graphics In Condition

- ◆ : Baseline
- : Intervention
- : Trend Direction
- : Mean Level

#### 1. Baseline Condition

In this condition, the subjects in this study have not received intervention, observations in the baseline condition are carried out based on the results of the assessment conducted on the subject of physical aggressive

behavior. The results obtained are as follows:

a. Hit:

The 1st meeting was held on Thursday, June 2, 2022. Researchers observed the behavior of children who had physically aggressive behavior in the learning process. At this meeting the child still had physical aggressive behavior hitting 4 times.

The second meeting was held on Monday, June 6, 2022. Researchers observed the behavior of children who had aggressive physical hitting behavior in the learning process. At this meeting, the child still had physical aggressive behavior, hitting him increased by 5 times.

The 3rd meeting was held on Tuesday, June 7, 2022. Researchers observed the behavior of children who had aggressive physical hitting behavior in the learning process. At this meeting the child still had physical aggressive behavior hitting 5 times.

b. Push

The 1st meeting was held on Thursday, June 2, 2022. Researchers observed the behavior of children who had physically aggressive behavior encouraging them in the learning process. At this meeting the child still had physical aggressive behavior pushing 5 times.

The second meeting was held on Monday, June 6, 2022. Researchers observed the behavior of children who had physically aggressive behavior encouraging them in the learning process. At this meeting, the child still has very aggressive physical behavior, pushing him to increase 6 times.

The 3rd meeting was held on Tuesday, June 7, 2022. Researchers observed the behavior of children who had

physically aggressive behavior encouraging them in the learning process. At this meeting the child still had physical aggressive behavior pushing 5 times.

The 4th meeting was held on Wednesday, June 8, 2022. Researchers observed the behavior of children who had physical aggressive behavior pushing in the process learning takes place. At this meeting the child still had physical aggressive behavior pushing 5 times.

c. Pinch

The 1st meeting was held on Thursday, June 02, 2022. Researchers observed the behavior of children who had aggressive physical pinching behavior in the learning process. At this meeting the child still had physical aggressive behavior, pinching 6 times.

The second meeting was held on Monday, June 6, 2022. Researchers observed the behavior of children who had physical aggressive behavior by pinching in the learning process. At this meeting the child still had physical aggressive behavior by pinching 5 times.

The 3rd meeting was held on Tuesday, June 7, 2022. Researchers observed the behavior of children who had aggressive physical pinching behavior in the learning process. At this meeting the child still had physical aggressive behavior, pinching 6 times.

The 4th meeting was held on Wednesday, June 8, 2022. Researchers observed the behavior of children who had aggressive physical pinching behavior in the learning process. At this meeting the child still had physical aggressive behavior, pinching 6 times.

The 5th meeting was held on Thursday, 09 June 2022. Researchers observed the

behavior of children who had aggressive physical pinching behavior during the learning process. At this meeting the child still had physical aggressive behavior by pinching 5 times.

2. Intervention Conditions

The condition of the intervention is using the token economy technique in the form of a star sticker, this observation is carried out in the learning process for 45 minutes, before making observations on the intervention, the researcher explains on the subject how to apply the token economy, the researchers and students agree. Seen in the visual graph on the condition of the student's intervention experienced a decrease in aggressive behavior. Subjects who initially thought to get something they wanted showed aggressive behavior in class, turned into something they wanted or liked, the subject had to reduce their aggressive behavior in class, by providing reinforcement in the form of a star sticker as a token form. The purpose of this token is that children are motivated to collect a certain number of stickers and can be exchanged for the desired stationery gift.

The descriptions of the research results obtained from each meeting in this condition are as follows:

a. Hit

The intervention conditions were carried out after the baseline conditions reached a stable target. In the intervention condition, the researcher observed hitting for 7 meetings which was carried out while learning self-development for 45 minutes. The intervention was carried out from Wednesday, June 8, 2022 to Tuesday, July 19, 2022. In this condition, the physical aggressive behavior of hitting children has begun to decrease. The 1st meeting was held on Wednesday, June 8, 2022. Researchers observed physical aggressive behavior hitting children using the token technique economy. In this meeting, his physical aggressive behavior remained 5 times in hitting his friend.

The second meeting was held on Thursday, 09 June 2022.

Researchers observed physical aggressive behavior in hitting children using the token economy technique. This meeting saw physical aggressive behavior hitting 4 times in hitting his friend. The 3rd meeting was held Monday, June 13, 2022. Researchers observed physical aggressive behavior hitting children using the token economy technique. In this meeting, his physical aggressive behavior remained 4 times in hitting his friend.

The 4th meeting was held on Tuesday, June 14, 2022. Researchers observed the physical aggressive behavior of hitting children using the token economy technique. This meeting saw his physical aggressive behavior reduced 3 times in hitting his friend.

The 5th meeting was held on Wednesday, June 15, 2022. Researchers observed the physical aggressive behavior of hitting children using the token economy technique. In this meeting, his physical aggressive behavior was reduced by 2 times in hitting his friend.

The 6th meeting was held Monday, July 18, 2022. Researchers observed physical aggressive behavior hitting children using the token economy technique. This meeting saw his physical aggressive behavior increase again 3 times in hitting his friend.

The 7th meeting was held Tuesday, July 19, 2022. Researchers observed physical aggressive behavior hitting children using the token economy technique. This meeting saw his physical aggressive behavior reduced again 2 times in hitting his friend.

b. Push

In the intervention condition, the researcher conducted encouraging

observations for 6 meetings which were carried out while learning self-development for 45 minutes. The intervention was carried out from Thursday, 09 June 2022 to Tuesday, 19 July 2022. In this condition, the physical aggressive behavior of hitting children has begun to decrease.

The 1st meeting was held on Thursday, 09 June 2022. Researchers observed physical aggressive behavior encouraging children by using the token economy technique. In this meeting, his physical aggressive behavior remained 5 times in hitting his friend.

The 2nd meeting was held Monday, June 13, 2022. Researchers observed physical aggressive behavior encouraging children by using the token economy technique. This meeting saw his physical aggressive behavior reduced by 4 times in hitting his friend.

The 3rd meeting was held on Tuesday, June 14, 2022. Researchers observed physical aggressive behavior encouraging children by using the token economy technique. This meeting saw his physical aggressive behavior reduced 3 times in hitting his friend.

The 4th meeting was held on Wednesday, June 15, 2022. Researchers observed physical aggressive behavior encouraging children by using the token economy technique. This meeting saw his physical aggressive behavior increased 4 times in hitting his friend.

The 5th meeting was held Monday, July 18, 2022. Researchers observed physical aggressive behavior encouraging children by using the token economy technique. This meeting saw his physical aggressive behavior reduced again 3 times in hitting his friend.

The 6th meeting was held Tuesday, July 19, 2022. Researchers observed physical aggressive behavior encouraging children by using the token economy technique. This meeting saw his physical aggressive behavior reduced 3 times in hitting his friend.

c. Pinch

In the intervention condition, the researcher conducted pinch observations for 5 meetings which were carried out while learning self-development for 45 minutes. The intervention was carried out from Monday, June 13, 2022 to Tuesday, July 19, 2022. In this condition, the physical aggressive behavior of hitting children has begun to decrease.

The 1st meeting was held Monday, June 13, 2022. Researchers observed physical aggressive behavior by pinching children using the token economy technique. In this meeting, his physical aggressive behavior remained 5 times in hitting his friend.

The second meeting was held on Tuesday, June 14, 2022. Researchers observed physical aggressive behavior by pinching children using the token economy technique. This meeting saw his physical aggressive behavior reduced by 4 times in hitting his friend.

The 3rd meeting was held on Wednesday, June 15, 2022. Researchers observed physical aggressive behavior by pinching children using the token economy technique. In this meeting, his physical aggressive behavior remained 4 times in hitting his friend.

The 4th meeting was held on Monday, July 18, 2022. Researchers observed physical aggressive behavior by pinching children using the token economy technique. This meeting saw his

physical aggressive behavior reduced 3 times in hitting his friend.

The 5th meeting was held Tuesday, July 18, 2022. Researchers observed physical aggressive behavior by pinching children using the token economy technique. In this meeting, his physical aggressive behavior remained 3 times in hitting his friend.

### Discussion

From the results of the research above, it is proven that the token economy technique can reduce aggressive behavior in ADHD children. then there are some researchers who first apply the token economy like (Saroha & Marlina, 2018) use token economy to reduce aggressive behavior in intellectually impaired children; (Putri & Martias, 2021) using token economy techniques to reduce aggressive behavior in mentally retarded children; (Handayani & Hidayah, 2014) implementing token economy in reducing aggressive behavior in 3 kindergarten children; (Mufidah, 2012) implementing economic token rewards improves the discipline of all group A students at Hj Isriati Baiturrahman 1 TK Semarang; (Hasanah et al., 2018) using economic tokens on children who attend regular schools who have anxiety about being separated from their parents at school.

From the several studies above, it is proven that the token economy technique is not only effective for children with special needs, because many people use the token economy technique on different subjects and behaviors and can be applied to different ages and different characters of children.

The main purpose of using this token economy is to increase favorable traits and reduce disliked traits (Marlina, Marlina., 2019). The main purpose of the token economy is to increase favorable (good) behavior and reduce disliked behavior. The purpose of the larger token economy is to teach appropriate behavior and social skills that can be used in a natural environment (Alaniyah, 2019).

The technique used is how to change the mindset of the subject, who initially thought to get something he wanted, the subject showed aggressive behavior in class, changed it to something he wanted or liked, the subject had to

reduce his aggressive behavior in class, by providing reinforcement in the form of a star sticker as a symbol. token form. In this study, the researchers used an economic token in the form of a star sticker, the purpose of this token is to motivate children to collect stickers in the amount of 10 stickers and can be exchanged for prizes used, namely the desired stationery. After the treatment phase was given by giving gifts, the researcher also gave praise.

The results of research on research subjects prove that the use of economic tokens can reduce physical aggressive behavior by hitting, pushing, and pinching in class on students who experience physical aggressive behavior. The success of using the token economy that has been achieved in this study supports several previous studies which state that the token economy is effective in overcoming the problem of aggressive behavior. If the subject gets a reward, it will benefit from the repetition of the behavior. If the behavior is not rewarded, the behavior will not appear again. This is a reward given to the intervention, then the frequency of occurrence of the behavior is reduced. On the other hand, when the reward is not given in the baseline condition, the frequency of behavior increases.

### Conclusion

Based on the results of research that has been carried out on ADHD children at the Merangin SLBN using the token economy technique, it can reduce physical aggressive behavior in ADHD children from data analysis, overall data analysis under conditions and between conditions is stated to have been effective in reducing physical aggressive behavior hitting, pushing and pinching. So, teachers need to apply token economy techniques to reduce unwanted behavior in the learning process.

### References

- Alaniyah, M. (2019). *Penerapan Teknik Token Ekonomi untuk Mengatasi Perilaku Menunda-Nunda Mengerjakan PR (Studi Kasus di Pondok Pesantren An-Nawa Kampung Pengoreng Desa Mangunreja Kecamatan Pulo Ampel Kabupaten Serang Provinsi Banten)*. UIN SMH BANTEN.
- Fitri, S., Luawo, M. I. R., & Puspasari, D. (2016). *Gambaran Agresivitas Pada Remaja Laki-Laki Siswa SMA Negeri di DKI Jakarta*. *Insight: Jurnal Bimbingan Konseling*, 5(2),

155.

<https://doi.org/10.21009/insight.052.02>

- Handayani, D., & Hidayah, N. (2014). Pengaruh Token Ekonomi Untk Mengurangi Agresivitas Pada Siswa Tk. *Empathy: Jurnal Fakultas Psikologi*, 2(2), 44–52.
- Hasanah, H. W., Fatmawati, F., & Marlina, M. (2018). Peningkatan Ketahanan Duduk dan Pengurangan Perilaku Meninggalkan Tempat Duduk Melalui Teknik Time Out Pada Anak Attention Deficit Hyperactivity Disorder. *Jurnal Pendidikan Kebutuhan Khusus*, 2(1), 26–31.
- Knapp, P. K., Ammen, S., Arstein-Kerslake, C., Poulsen, M. K., & Mastergeorge, A. (2017). Feasibility of expanding services for very young children in the public mental health setting. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46(2), 152–161.
- Marlina, Marlina., G. K. (2019). *Strategi Penanganan Anak ADHD* (Cetakan 1). Prenadamedia Group.
- Marlina, M. (2008). *Gangguan Pemusatan Perhatian dan Hiperaktivitas pada Anak*. UNP Press.
- Marlina, M. (2011). Aplikabilitas Metode Applied Behavior Analysis untuk Mengurangi Perilaku Anak ADHD (Attention Deficit Hyperactivity Disorders). *INSANIA: Jurnal Pemikiran Alternatif Kependidikan*, 16(1), 39–52.
- Marlina, M. (2021a). *Bahan Ajar Metode Penelitian Pendidikan Khusus*.
- Marlina, M. (2021b). *Single Subject Research (Penelitian Subjek Tunggal)* (cetakan 1). PT RAJAGRAFINDO PERSADA.
- Mufidah, U. (2012). Efektivitas pemberian reward melalui metode token ekonomi untuk meningkatkan kedisiplinan anak usia dini. *BELIA: Early Childhood Education Papers*, 1(2).
- Putri, R. Z., & Martias, Z. (2021). Efektivitas Penggunaan Teknik Token Economy Untuk Mengurangi Perilaku Agresif Pada Tunagrahita Ringan di SLB Lumin Alisa Padang. *Jurnal Penelitian Pendidikan Kebutuhan Khusus*, 9(1), 145–150.
- Rahmawati, N. (2015). Token Economy Sebagai Upaya Meningkatkan Kedisiplinan Siswa Pada Mata Pelajaran Matematika Kelas II SD Baturetno. *Skripsi. Tersedia Di Http://eprints.Uny. Ac. Id/16551/1/Nimas%20Rahmawati%20S.. Pdf [Diakses 12-06-2017]*.
- Rohmaniah, N., Tegeh, I. M., & Magta, M. (2016). Penerapan Teknik Modifikasi Perilaku Token Ekonomi untuk Meningkatkan Kedisiplinan Anak Usia Dini di Tk Aisyiyah Bustanul Athfal Singaraja Tahun Pelajaran 2015/2016. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 4(2).
- Saroha, I., & Marlina. (2018). Penggunaan Token Economic Untuk Mengurangi Perilaku. *Jurnal Penelitian Pendidikan Kebutuhan Khusus*, 6, 224–229.
- Susanti, R. H., & Permatasari, D. (2020). Terapi menulis ekspresif sebagai upaya menurunkan perilaku agresif siswa sekolah menengah pertama. *Masyarakat Berdaya Dan Inovasi*, 1(1), 27–32.

#### Author Profile

The full name of the author is Witri Epilia, born on December 29, 1995 in Kampar, Kampar Regency, Riau Province. The author is a student who entered the 2021 PPKHB Jambi pathway from the Department of Special Education, Faculty of Education, State University of Padang.