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The Effect of Token Economy Implementation on Disruptive Behavior in Early Childhood

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ABSTRACT

Background of the study: Disruptive behavior refers to actions that tend to oppose or interfere with a child's interactions with peers and adults. This type of behavior has a negative impact because it can disrupt the learning process, and therefore, requires proper intervention. In general, such negative behaviors need to be modified in order to be reduced. The token economy technique is a form of behavior modification designed to increase targeted positive behaviors and decrease undesired behaviors through the use of tokens as reinforcement.
Aims and scope of paper: This study aims to determine the effect of implementing a token economy on disruptive behavior in children.
Methods: The research method used was a quasi-experimental design with a non-equivalent control group. This study was conducted at ARNI Kindergarten in Jember. The sampling technique used was convenience sampling, involving children from groups A2 and A3, totaling 28 children as research subjects. Data on children's disruptive behavior were collected through observation using an observation sheet instrument containing indicators of disruptive behavior. Data analysis was conducted using an Independent Sample T-test, with all analyses performed using the SPSS program.
Results: The results of the Independent Sample T-test showed that the calculated t_{value} was greater than the critical t_{value} ($t = 2.818 > 1.782$) and in a negative direction (-), indicating a significant difference in children's disruptive behavior before and after the implementation of the token economy. This suggests that the token economy effectively reduces disruptive behavior in group A children at ARNI Kindergarten, Jember.
Contribution: This study specifically examines the impact of using a token economy on children's disruptive behavior. It provides valuable insights for teachers in addressing disruptive behavior through the application of token economy strategies. Reducing such behavior can help children learn more effectively and contribute to creating a comfortable and conducive learning environment.

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INTRODUCTION

Disruptive behavior refers to actions exhibited by children that tend to be disturbing, defiant toward others or existing rules, or even involve acts of aggression against others (Novitasari, 2016). According to Bidell and Deacon (as cited in Triwahyuni, 2018:48), disruptive behavior in the classroom includes ignoring the rights of others, causing disturbances, refusing to cooperate or participate in learning activities, leaving one's seat without permission, and lacking focus during lessons. Such behaviors can hinder the teaching and learning process, and therefore require intervention using specific methods or techniques.

Behavior modification is a technique used to improve maladaptive or problematic behaviors by shaping adaptive behaviors (Aulia et al., 2022). Korohama and Bali (Nurfadilah, 2021) explain that behavior modification aims to help eliminate undesirable behaviors by developing new, positive behaviors in children. Thus, behavior modification techniques can be utilized as an effort to reduce or eliminate disruptive behaviors in children.

Token economy is a behavior modification technique that can be applied to reinforce targeted behaviors and reduce negative behaviors in children. The implementation of a token economy serves as a character-building effort by providing reinforcement for the behaviors being improved (Aprilia & Wardhani, 2023). The token economy method involves the use of tokens (symbols), which are unique, tangible items designed to attract children's attention. Tokens can take the form of star-shaped stickers. These tokens are collected and can be exchanged for rewards that serve as reinforcers for the desired behavior. The provision of rewards is intended to encourage children to act in accordance with predetermined behavioral expectations.

Based on initial observations conducted by the researcher at ARNI Kindergarten in Kaliwates Subdistrict, Jember Regency, the most commonly observed disruptive behaviors among children include: hitting peers, deliberately pushing peers, mocking others, refusing to queue when washing hands, not paying attention to the teacher during lessons, shouting in class, fighting over objects or toys, and physically fighting with peers. When such disruptive behavior occurs, teachers usually respond by giving verbal reminders and directing the children to behave appropriately. However, these behaviors tend to recur, indicating the need for a more consistent and structured approach by teachers to address and improve children's behavior.

The issues described above highlight the importance of teaching children what behaviors are acceptable and unacceptable, as well as the importance of discipline, particularly within the school environment. Based on these challenges, the researcher is interested in using the token economy as a behavior modification technique in this study. It is hoped that the application of the token economy will have a significant effect in reducing the level of disruptive behavior in young children.

METHODS

Research Design

This study is a quasi-experimental research using a non-equivalent control group design. According to Winarni. Winarni (Akbar et al., 2023) experimental research is defined as a type of research that is structured, logical, and precise, as it involves applying control over certain conditions. Quasi-experimental research involves administering treatment to all subjects in the learning group without selecting them through random sampling techniques.

Population and Sample

The population in this study consisted of all Group A students at ARNI Kindergarten in Jember, totaling 58 children. The sampling technique used in this study was convenience sampling, which is a technique based on the ease of access and availability of members of the population to participate in the research. The sample in this study included 14 children from Group A2 and 14 children from Group A3.

Data Collection Method

Data in this study were collected through the observation method. The study employed the tally observation technique, in which data or information are gathered by assigning scores to the observed behaviors.

Data Analysis Technique

The data analysis technique used in this study was the Independent Sample T-test. Data calculations were assisted by SPSS version 24.0 and were processed based on the difference between post-test and pre-test scores from the experimental and control groups.

RESULT

The study began with a pre-test administered to both the experimental group and the control group. The pre-test was conducted over two alternating days for each group, during which the children's disruptive behaviors were observed and recorded at specific times. For example, if a child hit a peer during a lesson, this behavior was noted and later accumulated at the end of the pre-test phase. The purpose of this stage was to identify the children's disruptive behaviors prior to administering the token economy intervention.

Following the pre-test, the token economy treatment was implemented. The treatment was conducted over a period of seven days. On the first day, children were introduced to the concept of the token economy and taught the rules and procedures of the activity. Over the next few days, children participated in the token economy activity by collecting tokens in the form of stars. On the final day, the tokens collected were exchanged for rewards (prizes). Children received tokens for displaying positive behavior or for refraining from disruptive behaviors such as hitting peers, shouting in class, or fighting over toys.

After the treatment was completed in the experimental group, a post-test was conducted for both groups. Similar to the pre-test, the post-test was carried out over two alternating days for each group. This phase aimed to observe differences between the group that received the token economy intervention and the group that underwent conventional learning without the use of token economy. The post-test followed the same procedure as the pre-test: recording instances of disruptive behavior at specific times, and accumulating the data at the end of the post-test phase.

Once the post-test was completed, the results from the pre-test and post-test were compared to determine whether there was a change in the children's disruptive behavior after receiving the token economy treatment. The data analysis process in this study began with a homogeneity test of the experimental and control groups, followed by a normality test, and finally a hypothesis test using the Independent Sample T-test. The following are the results of the data analysis:

Table 1. Homogeneity Test Results

Group	Significance	Conclusion
Experimental and Control	0,136	Homogeneous

Based on Table 1, the results of the homogeneity test show a significance value of 0.136. A significance value greater than 0.05 indicates that both groups are homogeneous.

Table 2. Normality Test Results

Group	Significance	Conclusion
Experimental	0,088	Normal
Control	0,139	Normal

Based on Table 2, the normality test results show a significance value of 0.088 for the experimental group and 0.139 for the control group. Both values are greater than 0.05, which means that both groups are normally distributed.

Table 3. Independent Sample T-test Results

Disruptive Behavior	N	T-test	df	Significance
Experimental Group	14	-2,818	26	0,009
Control Group	14			

Based on Table 3, the result of the Independent Sample T-test shows a t-value of -2.818. The critical t-value (t_{table}) for df = 26 is 1.782. The significance value obtained is less than 0.05. Since the calculated t-value (2.818) is greater than the critical t_{value} (1.782) and in a negative direction (-), this indicates that the implementation of the token economy significantly reduces children's disruptive behavior.

DISCUSSION

Behavior is the result of an individual's internalization process that involves a series of cognitive, affective, and psychomotor phases, which in turn drive the individual to act, respond, and behave in daily life (Christian & Hidayat, 2020). In the context of learning activities at school, a child's behavior can either support or hinder the learning process. One example of a behavior that obstructs learning is disruptive behavior, which refers to negative actions or "misconduct" exhibited by children in the classroom (Aliyyu, 2019).

Seeman (Syarifuddin, 2018) identifies several characteristics of children who exhibit disruptive behavior in class, such as disturbing the classroom atmosphere, excessive joking with peers, disobedience, aggression, and immoral behavior. These behaviors are in line with what was observed among children in Group A at TK ARNI Jember. The children were often found hitting their peers, intentionally pushing others, mocking classmates, refusing to line up when washing their hands, not paying attention to the teacher during lessons, yelling in the classroom, fighting over toys or items, and physically fighting with friends.

Flicker dan Hoffman (Christian & Hidayat, 2020) explain that disruptive behavior in children is influenced by two main factors: internal and external. Internal factors include psychological and emotional aspects—children who are unable to manage their emotions properly tend to display disruptive behavior, which disrupts the learning process. Meanwhile, external factors, as noted by Todras (Triwahyuni, 2018) include the lack of parental involvement in the child's growth and development. Parents who pay little attention to their children and focus solely on their negative behavior may inadvertently encourage children to act out in order to gain attention.

This study found a significant influence of the token economy system on reducing children's disruptive behavior. As a form of behavior modification, the token economy was shown to effectively decrease disruptive tendencies. These findings are consistent with those of Amalo & Widiastuti (2021) in their study titled "The Effect of Token Economy on Reducing Disruptive Behavior in Children Aged 4–5 Years", which revealed a significant positive impact. Similarly, research by Kulsum & Hakim (2023) found that the token economy reduced aggressive behavior in children. Moreover, token economies have also been proven to increase discipline (Aprilia & Wardhani, 2023) and foster prosocial behavior (Prima & Lestari, 2019).

Through the token economy, children are motivated to reduce disruptive behaviors such as hitting, shouting in class, or snatching toys from peers. The opportunity to earn star tokens for displaying positive behaviors captures children's attention and encourages them to collect more, knowing they can exchange them later for an agreed-upon reward. The reward system serves as a form of reinforcement to build character in early childhood (Farikhah & Nabighoh, 2021). Rochwidowati dan Widyana (Amalo & Widiastuti, 2021) argue that rewards serve as both stimulation and motivation for children to develop desired behaviors.

Behavior modification is one of the most effective strategies to reduce or maintain desired behaviors in children. Every child should develop behaviors that align with the norms of their environment. Positive behavior helps children interact well within their surroundings, thus enabling them to achieve optimal development.

Implications
The success of token economies in behavioral intervention suggests a need to include such evidence-based strategies in early childhood education training modules and guidelines. Policy makers can use the findings to advocate for incorporating token economy techniques into teacher training programs and educational standards. This would support teachers in managing classrooms more effectively, especially in environments where disruptive behavior is prevalent.

Research Contribution
This study contributes to the field of early childhood education and behavioral psychology by providing empirical evidence on the effectiveness of the token economy technique in reducing disruptive behavior among young children. While previous studies have addressed behavior modification, this study offers a practical classroom-based intervention that is simple, engaging, and easily replicable by educators. It also strengthens the theoretical framework of behavior modification through positive reinforcement, highlighting the importance of structured behavioral interventions in early childhood settings.

Limitations
The study did not account for external variables such as home environment, parental involvement, or individual emotional and developmental differences that could influence behavior. These factors might play a significant role in children's behavior and should be considered in future research to provide a more comprehensive understanding of the intervention's effectiveness.

Suggestions
Investigate the effectiveness of digital or gamified token systems, which might be more engaging and scalable in modern educational settings. Digital platforms can offer interactive and customizable ways to implement token economies, potentially increasing student engagement and making the process more accessible for teachers.

CONCLUSION

Based on the results of the study, it can be concluded that the implementation of a token economy has a significant effect in reducing disruptive behavior among Group A children at TK ARNI Jember. The token economy was applied by providing a treatment in which children were motivated to collect tokens that could later be exchanged for rewards. The findings were obtained by comparing the children's behavior before and after the intervention, using pre-test and post-test assessments. For future research, it is recommended to further develop the token economy system by carefully considering each component—such as the design of the tokens and the selection of rewards—to make the program more engaging and appealing for children.

AUTHOR CONTRIBUTION STATEMENT

FON conceived the idea and conducted data collection. LNA and MH contributed to the literature review. All authors reviewed and approved the final version of the manuscript.

REFERENCES

Akbar, R., Siroj, R. A., Win Afgani, M., & Weriana. (2023). Experimental Reseacrch Dalam

Metodologi Pendidikan. *Jurnal Ilmiah Wahana Pendidikan*, *9*(Vol 9 No 2 (2023): Jurnal Ilmiah Wahana Pendidikan), 465–474. https://jurnal.peneliti.net/index.php/JIWP/article/view/3165

Aliyyu, A. (2019). Disruptive Behavior dan Bentuk Perlakuan Guru. *Indonesian Journal of Educational Counseling*, *3*(3), 199–210. https://doi.org/10.30653/001.201933.101

Amalo, I. G., & Widiastuti, A. A. (2021). *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini Pengaruh Penggunaan Token Ekonomi dalam Menurunkan Perilaku Disruptif Anak Usia 4 – 5 Tahun Abstrak*. *5*(1), 500–507. https://doi.org/10.31004/obsesi.v5i1.622

Aprilia, F., & Wardhani, J. D. (2023). Efektivitas Penerapan Metode Token Ekonomi Terhadap Tingkat Kedisiplinan Anak Usia Dini. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *7*(2), 1787–1798. https://doi.org/10.31004/obsesi.v7i2.4069

Aulia, D., Yuliati, N., & Dienda Saputri, S. W. (2022). Pengaruh penerapan teknik token ekonomi terhadap tingkat kedisiplinan siswa. *JPGI (Jurnal Penelitian Guru Indonesia)*, *7*(1), 104. https://doi.org/10.29210/021585jpgi0005

Christian, S., & Hidayat, D. (2020). Peran Guru Dalam Menangani Perilaku Mengganggu (Disruptive Behavior) Siswa Pada Proses Pembelajaran di Kelas [The Role of Teachers in Handling Disruptive Behavior Students in The Classroom Learning Process]. *Diligentia: Journal of Theology and Christian Education*, *2*(3), 45. https://doi.org/10.19166/dil.v2i3.2374

Farikhah, A., & Nabighoh, Wahyun, N. (2021). Meningkatkan Karakter Anak Usia Dini melalui Pemberian Penguatan. *Jurnal Almurtaja: Jurnal Pendidikan Islam Anak Usia Dini*, *1*(1), 1–5. https://doi.org/10.31004/obsesi.v5i2.1128

Imtikhani Nurfadilah, M. F. (2021). Modifikasi Perilaku Anak Usia Dini untuk Mengatasi Temper Tantrum pada Anak. *Jurnal Pendidikan Anak*, *10*(1), 69–76. https://doi.org/10.21831/jpa.v10i1.28831

Kulsum, U., & Hakim, Z. A. (2023). Pengaruh Token Ekonomi Terhadap Pengurangan Perilaku Agresif Pada Siswa ADD di TK Inklusi PAS Baitul Qur'an Ponorogo. *Wacana*, *15*(1), 41. https://doi.org/10.20961/wacana.v15i1.63655

Novitasari, R. (2016). Kecenderungan perilaku disruptif pada anak usia prasekolah ditinjau dari stres pengasuhan ibu. *Intuisi : Jurnal Psikologi Ilmiah*, *8*(2), 61–70. https://journal.unnes.ac.id/nju/INTUISI/article/view/8597

Prima, E., & Lestari, P. I. (2019). Penerapan Token Economy untuk Meningkatkan Perilaku Prososial Anak Usia Dini. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *4*(1), 268. https://doi.org/10.31004/obsesi.v4i1.324

Syarifuddin, F. M. (2018). Pengaruh Konformitas Teman Sebaya Terhadap Perilaku Mengganggu Siswa Smk Perguruan Islam Republik Indonesia (Piri) 3 Yogyakarta. *365 Jurnal Riset Mahasiswa Bimbingan Dan Konseling*, *4*(8), 364–378.

Triwahyuni, E. (2018). Penanganan Misbehavior Pada Anak Usia Dini Yang Menganggu Di Kelas. *Jurnal Audi*, *3*(1), 47. https://doi.org/10.33061/ad.v3i1.2073