



Journal of Educational Sciences

Journal homepage: <https://jes.ejournal.unri.ac.id/index.php/JES>



P-ISSN
2581-1657
E-ISSN
2581-2203

Development of Positive Reinforcement-Based Economic Token Media to Improve Children's Discipline

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ARTICLE INFO

Article history:

Received: 26 Nov 2025

Accepted: 28 April 2026

Available Online: 05 May 2026

Keywords:

Early Childhood,
Discipline,
Positive Reinforcement,
Token Economy Media

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Article Doi:

<https://doi.org/10.31258/jes.10.5.p.24-35>

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ABSTRACT

This study aims to develop an economic token-based media using positive reinforcement to improve children's discipline. The background of this study stems from the problem of low discipline among children, such as children often arriving late, not tidying up their toys, and not following the teacher's instructions when doing tasks. This research uses the Research and Development (R&D) method with the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The research subjects were 23 children in group B. This Economic Token Media was validated by two subject matter experts and media experts. The two experts gave it a validation score of 88.23% from the media expert and 100% from the subject matter expert. This media has been tested on 15 children in group B aged 5-6 years. From the test results, a feasibility score was obtained with a percentage of BSB 62.22%, BSH 26.66%, MB 11.11%, and BB 0%. The use of economic token media has been proven to be effective in improving children's discipline and is suitable for testing on children. It is also very safe to use and not harmful to children.

1. Introduction

Education plays a very important role in shaping individuals who are knowledgeable, have good character, and possess the skills to face various challenges in life. Early Childhood Education (PAUD) is a stage in the education system that focuses on physical, cognitive, social-emotional, spiritual, and moral development, so that various life values need to be instilled through consistent habituation. Education is not merely a means of preparing for the future, but for the present life of children who are undergoing development. Education is not only about imparting information, but also a process of shaping children's habits, values, and abilities to interact positively with their social environment. At this stage,

children begin to learn various basic concepts, including life values such as discipline. (Rahman et al., 2022)

Discipline is an important aspect in early childhood development that influences their future academic and social success. (Nazila et al., 2025). Discipline is very important to teach in order to prepare children to learn to live as social beings. Discipline is the basis for children to be able to manage themselves, understand rules, and participate well in learning activities. Instilling discipline requires a process or habit formation that is carried out repeatedly and consistently. Teachers have an important role in providing external control that aims to foster self-discipline through examples, guidance, and appropriate reinforcement (Buahana & Sativa, 2024). In the learning process, teachers can set a good example and develop children's potential for disciplined behavior (Assyifa & Rocmah, 2024). Teachers are not only role models, but also facilitators who provide supportive learning experiences.

Initial observations at Kartika XXI-19 Kindergarten in East Palu District indicate that Group B children's discipline remains low. This is evident in various behaviors that do not reflect a disciplined attitude in following school rules. These include many children arriving late, not being accustomed to tidying up their toys after playing, and lacking focus and not fully paying attention to teacher instructions during learning activities, such as when completing homework. This phenomenon indicates that children's discipline has not yet developed optimally and still requires more serious attention and handling. If this condition continues, it can impact the ineffectiveness of the classroom learning process. The learning atmosphere becomes less conducive, interactions between teachers and children are not optimal, and planned learning objectives become difficult to achieve optimally.

Based on these issues, there is a need for learning media that can help teachers provide structured positive reinforcement. Learning media are defined as tools that can convey learning materials and help children understand the concepts being taught (Khusnunnisa, M., & Andriani, A.E., 2025). One strategy that can be applied is to use positive reinforcement-based token economy media to improve children's discipline. Token economy is a behavior modification technique aimed at increasing desired behavior in children or reducing undesired behavior by using tokens or tokens (Agustina & Mukarromah, 2021). This medium takes the form of a reward system using certain symbols or objects (such as stickers, stars, or toy coins) that children collect and can exchange for gifts or fun activities. The tokens collected can later be measured against certain gifts or rewards as agreed upon.

According to Miltenberger in (Puteri & Ratnawati, 2024) the purpose of token economy is to reinforce desired behaviors that occur infrequently and to reduce undesired behaviors in structured care or educational settings. Through this method, children are given tokens as a form of reward for demonstrating positive behaviors, which can then be exchanged for specific rewards, thereby increasing the child's motivation to repeat those behaviors. This theory is rooted in B.F. Skinner's concept of operant conditioning, which states that the most important element in learning is reinforcement, and that behavior will increase when pleasant reinforcement is

provided. (Fidrayani et al., 2025). Thus, the use of an economic token system can serve as an effective learning strategy because it provides immediate reinforcement and helps children understand the connection between their actions and the outcomes they receive.

The use of economic tokens needs to be accompanied by positive reinforcement. Positive reinforcement is the provision of pleasant reinforcement after desired behavior, which tends to be repeated, increased, and maintained in the future. (Husna & Marlina, 2024). Positive reinforcement aims to show appreciation for good behavior, so that children feel valued and motivated to repeat it. Consistent positive reinforcement can foster self-discipline and internal motivation in children, so it is important to consistently provide praise, rewards, and recognition for desired behavior (Rangkuti & Harahap, 2024). Reinforcement can improve children's desirable behavior in terms of character and moral development, thereby improving their academic performance when reinforcement is applied (Arifin & Humaedah, 2021).

Overall, positive reinforcement plays an important role in early childhood education by motivating children, building their self-esteem and confidence, creating a supportive learning environment, fostering intrinsic motivation, and encouraging positive behavior. In the school context, positive reinforcement can take the form of praise, stickers, stars, or simple rewards given after children demonstrate the desired behavior. With positive reinforcement, the desired behavior can increase or continue to be practiced by children from an early age (Aunurrika et al., 2023). One method often used to reinforce positive behavior in children is to give non-physical rewards in the form of smiles or praise from teachers. These rewards are given as gifts to children who always behave well (Matorang et al., 2023).

However, this study recognizes several limitations that may be encountered during the research process. One of them is the lack of tools and materials to support the optimal implementation of the token economy in schools. In addition, the involvement of all children in token economy activities is also a challenge, given the differences in interests and levels of each child. This study focuses not only on product development but also on the effectiveness of media in facilitating changes in children's behavior. Given these limitations, the author will strive to develop a simple yet effective economic token media. The researcher then created a medium used to improve children's discipline, namely an economic token medium in the form of a binder titled "Discipline Book."

Based on observations in the field, this study aims to design, develop, and test the use of a positive reinforcement-based token economy system as a means of improving discipline among early childhood students, specifically those in Group B at Kartika XXI-19 Kindergarten. This study is designed to produce an educational tool in the form of a "Discipline Book" that is not only visually appealing but also easy to use and aligned with classroom learning needs. This study also aims to examine the extent to which the token economy medium is effective in helping to improve children's disciplinary behavior, such as the habit of arriving on time, tidying up toys after use, and completing tasks assigned by the teacher. In addition,

this study is expected to provide an alternative solution for teachers in implementing positive reinforcement strategies more systematically and consistently within the school environment.

2. Methodology

a. Type of Research

This study uses a research and development (R&D) approach with the ADDIE model (*Analyze, Design, Development, Implementation, Evaluation*). According to Sugiyono in (Asnila et al., 2024) that “Research and development (R&D) is a research method used to produce specific products and test their effectiveness.” Researchers use the ADDIE development model because this development model has advantages in its process stages, and each phase is evaluated and revised from the stages that have been passed so that the resulting product is a valid product. This research and development aims to produce a product that can be accounted for. Researchers developed a product in the form of learning media to improve children's discipline. From the research conducted, a product called economic token media in the form of a binder book called “Discipline Book” was created.

b. Time and Place of Research

The research was conducted within approximately one month of the issuance of the research permit for the data collection stage. The research location was the site or area where the research was conducted to obtain the necessary data and information. This research was conducted at the Kartika XXI-19 Kindergarten Group B, located at Jalan Jendral Soedirman No. 25, Palu Timur District, Palu City, Central Sulawesi.

c. Research Subject

The research subjects in this development study were Group B, consisting of 23 children, including 15 boys and 8 girls aged 5-6 years, who were given treatment before and after testing the developed product, which was an economic token-based positive reinforcement medium to improve children's discipline.

d. Procedure

The development procedure to be carried out consists of five stages of the ADDIE research and development model, namely Analyze, Design, Development, Implementation, and Evaluation. The ADDIE development stages are shown in Figure 1. The ADDIE development model was applied in this study to produce effective economic token media for use at Kartika XXI-19 Kindergarten, namely:

1. The Analysis stage was carried out by identifying children's disciplinary problems and teachers' needs for media.
 2. In the Design stage, researchers designed media in the form of a binder containing disciplinary indicators and reinforcement-based tokens.
-

3. The Development stage was carried out by creating products according to the design, which were then validated by subject matter and media experts and revised until the media was suitable for use.
4. The Implementation stage involves applying the media in the classroom, where teachers give tokens every time children demonstrate disciplined behavior according to the indicators.

The Evaluation stage is carried out by reviewing the impact of learning with the developed product.

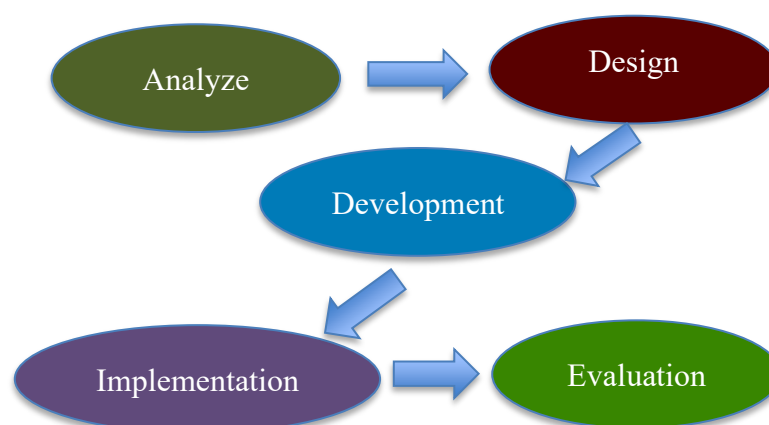


Figure 1. The ADDIE Development Phases

e. Data Analysis Techniques

Research data is all information collected by researchers to answer research questions and achieve research objectives. Data was collected quantitatively using assessment questionnaires from subject matter experts, media, teachers, and children in group B. Data collection techniques in this study included observation, interviews, documentation, and questionnaires.

3. Results and Discussion

The following will discuss the parts of ADDIE:

Analyze

During the analysis stage, researchers identified the school's needs and problems occurring in the classroom related to children's discipline issues. The learning objective was to improve children's discipline through the use of economic tokens. Based on initial observations at Kartika XXI-19 Kindergarten, it was found that the discipline of children in group B was still low, particularly in three main indicators, namely: arriving on time, tidying up toys, and doing tasks. Previously, teachers only used verbal reinforcement, which was not able to consistently improve disciplinary behavior. Therefore, economic token media is needed as a visual aid and a positive reinforcement that is attractive to early childhood.

Design

After researchers collected data through site surveys, observations, and interviews, the next step was to create economic token media to improve children's discipline. Learning media are tools that can aid the teaching and learning process by clarifying the meaning of the message being conveyed so that the learning objectives are better and more complete. Therefore, choosing attractive media can help children focus on what the teacher is saying and explaining. The researchers began designing the economic token media using the Canva application. The initial design of the economic token media was in the form of a binder containing several components, namely:

1. Cover titled: "Discipline Book"
2. Media usage instructions explaining how teachers give tokens and game rules.
3. Token column or table for each child with three discipline indicators.
4. Token sticking area (stars, medals, trophies)
5. Cover

The design of the "Discipline Book" prior to revision can be seen in Figure 2.



Figure 2. Design of the Discipline Handbook Before Revision

The design refers to visual principles for early childhood, namely bright colors, simple appearance, and tokens that are easy to stick on. This design supports the learning concept that integrates positive reinforcement into classroom routines.

Development

Factors that need to be considered are the creation of interactive learning media, namely the presentation of learning materials and the benefits for users of the media itself (Anafi et al., 2021). During the development stage, the design was translated into a tangible product in the form of a binder book using laminated art paper and color-printed token stickers. This product was validated by material and media experts. This validation process is an important stage in the development of learning media to ensure that the media presented is in line with learning objectives, easy for children to understand, and suitable for use in schools. The purpose of

conducting a validation assessment with experts is to determine the suitability of the economic token media in improving children's discipline before it is tested on respondents. The validation results show that this media is very suitable for use with a few minor revisions, such as adjusting the colors used and clarifying how to use this economic token media. The revised design of the “Discipline Book” can be seen in Figure 3.

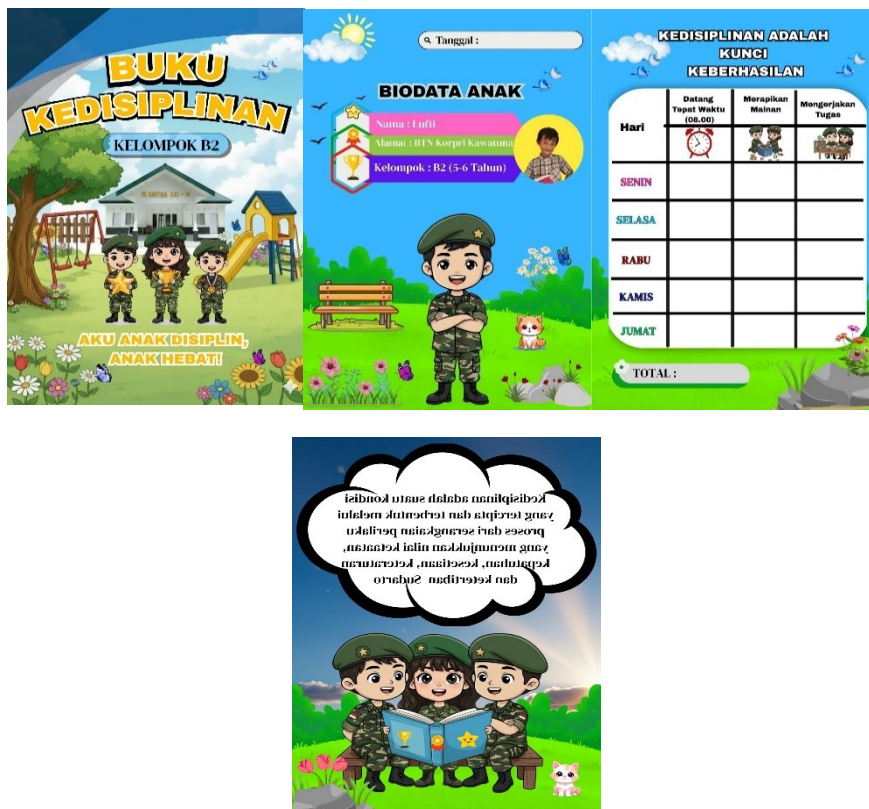


Figure 3 Discipline Book Design After Revision

The following are the feasibility assessment percentages for the Media Token Economy, which have been evaluated and revised by media and content validators. The assessment process conducted by the experts is shown in Table 1.

Table 1. Feasibility Assessment Percentage

Average Score%	Category
0%-25%	Unacceptable
26%-50%	Unsatisfactory
51%-75%	Acceptable
76%-100%	Excellent

a. Media Expert Assessment Results

Media validation is carried out by lecturers with an arts background or who are knowledgeable and skilled in media production. Validators assess aspects of the discipline book media that has been developed. The assessment results are calculated and the score for media expert validators is 88.23% or Very Good.

b. Results of Expert Assessment

The initial validation results were carried out by experts with a background in understanding the material from this binder-type economic token media. The validators assessed the material aspects of the economic token media in improving children's discipline developed by the researchers to determine whether it was suitable for implementation in kindergartens or not. The method for calculating the assessment results has been applied and the score for media expert validators is 88.23% or Very Good.

Implementation

Product trials were conducted from October 6 to November 28, 2025, selecting the research location in group B of Kartika XXI-19 Kindergarten in East Palu District. The product being tested was an economic token medium to improve children's discipline, which had previously been validated by media and material experts. The implementation phase aimed to enable teachers to prepare the learning environment and involve children effectively in the learning process (Hidayat & Nizar, 2021). This trial was conducted for approximately 30 minutes, beginning with the presentation of economic tokens. Next, teachers could give tokens (stars, medals, trophies) after children demonstrated disciplined behavior. This study began with initial observations before and after the treatment was given. The assessment indicators were as follows:

- a. Arriving on Time
- b. Tidying Up Toys
- c. Doing Homework

The following section describes the research results before and after the application of the economic token intervention. The assessment results prior to the intervention can be seen in Figure 2

Table 2. Before Treatment

Category	Positive Reinforcement-Based Economic Token Media In Improving Children's Discipline						Average %
	Arriving On time (08.00)		Tidying up toys		Doing Homewark		
	F	%	F	%	F	%	
Developing very well (BSB)	0	0,00	0	0,00	0	0,00	0,00
Developing as expected (BSH)	0	0,00	0	0,00	0	0,00	0,00
Starting to develop (MB)	5	33,33	4	26,67	5	33,33	31,11
Not yet developed (BB)	10	66,67	11	73,33	10	66,67	68,88
Total	15	100	15	100	15	100	100

From the table above, it can be seen that the results of the recapitulation of observations on the disciplinary behavior of children before being given treatment from 15 children who were the subjects of the study in three indicators/aspects, namely the aspect of arriving on time, the aspect of tidying up toys, and the aspect of doing tasks, were (68.88%) in the BB category, (31.11%) in the MB category, (0%) in the BSH category, and (0%) in the BSB category. The results of the post-treatment assessment can be seen in Figure 3.

Table 3. After Treatment

Category	Positive Reinforcement-Based Economic Token Media In Improving Children's Discipline						Average%
	Arriving On time (08.00)		Tidying up toys		Doing Homework		
	F	%	F	%	F	%	
Developing very well (BSB)	10	66,67	10	66,67	8	53,33	62,22
Developing as expected (BSH)	4	26,67	3	20,00	5	33,33	26,66
Starting to develop (MB)	1	6,67	2	13,33	2	13,33	11,11
Not yet developed (BB)	0	0,00	0	0,00	0	0,00	0,00
Total	15	100	15	100	15	100	100

From the table above, it can be seen that the results of the recapitulation of observations on children's disciplinary behavior after being given disciplinary treatment from 15 children who were the subjects of the study in three indicators/aspects, namely the aspect of doing tasks, were (0%) in the BB category, (11.11%) in the MB category, ((26.66%) in the BSH category, and (62.22%) in the BSB category. The following documentation of the implementation of the Discipline Book in the classroom can be seen in Figure 4



Figure 4. Documentation of the Implementation of the Discipline Handbook in the Classroom

Evaluation

The evaluation stage is a stage conducted by researchers to evaluate by comparing the results of all trial stages and summarizing the results of the assessment of the suitability of learning media by subject matter experts and media experts (Pitriani et al., 2021). Evaluation is not only conducted at the end, but also continuously at each stage of development to ensure that the quality of the economic token media is maintained and remains suitable for use. During the validation process, researchers received various suggestions, input, and criticism from subject matter experts and media experts, which were then used as reference material to revise certain parts that were deemed unsuitable. For example, improvements were made to the design of this discipline book, which initially had an astronaut theme, the color selection for each page, which lacked variety, and the children's biographies, which were insufficient. The final evaluation aims to ensure that this media meets the eligibility criteria in terms of both content and visual presentation. The results of this evaluation are used to provide feedback to the people who use the media (Syahid et al., 2024). Based on expert validation, this economic token media can be declared highly valid and suitable for use in early childhood education. Thus, positive reinforcement-based economic token media is considered effective as a learning tool and as a tool for managing children's behavior at Kartika XXI-19 Kindergarten.

4. Conclusion

Based on the research findings and discussion, it can be concluded that this positive-reinforcement-based token economy system in the form of a binder effectively improves children's disciplinary behavior. The token economy system has been validated by subject matter experts and media specialists and is deemed suitable for testing with children. It has been proven to help children develop disciplined behavior through consistent practice, such as arriving on time, tidying up toys, and completing tasks. The implementation of this medium provides a more engaging and meaningful learning experience for children, as it is supported by the use of simple yet motivating reward symbols, such as stickers or stars. This encourages children to participate more actively in learning activities and to strive to repeat the positive behaviors that have been reinforced. Additionally, this medium also makes it easier for teachers to manage the classroom and provide structured and sustained reinforcement. This token economy system has been directly tested with children, and the results are highly valid and effective in improving children's disciplinary behavior, making it highly suitable for use in schools.

References

- Agustina, P., & Mukarromah, T. T. (2021). Efektifitas Teknik Modifikasi Perilaku Token Ekonomi Terhadap Perilaku Disiplin Anak Usia Dini. *Jurnal ceria (Cerdas Energik Responsif Inovatif Adaptif)*, 4(3), 235–241.
- Anafi, K., Wiryokusumo, I., & Leksono, I. P. (2021). Pengembangan Media
-

-
- Pembelajaran Model ADDIE Menggunakan Software Unity 3D. *Jurnal Education and Development*, 9(4), 433–438.
- Arifin, Z., & Humaedah. (2021). Penerapan Teori Operant Conditioning B.F Skinner Dalam Pembelajaran PAI. *Journal of Contemporary Islamic Education*, 1(2), 101–110. <https://doi.org/10.25217/cie.v1i2.1602>
- Asnila, Muzakir, U., & Oktariana, R. (2024). Efektivitas Pemberian Reward Melalui Metode Token Ekonomi Untuk Meningkatkan Kedisiplinan Anak Usia 5-6 Tahun di TK Dharma Wanita Sibigo. *Jurnal Ilmiah Mahasiswa*, 5(1), 1–13.
- Assyifa, N., & Rocmah, L. I. (2024). Penerapan Metode Token Ekonomi dalam Meningkatkan Kedisiplinan Anak Usia 5-6 Tahun di TK ABA Gondanglegi Sutojayan. *Jurnal Simki Pedagogia*, 7(2), 573–585. <https://doi.org/10.29407/jsp.v7i2.806>
- Aunurrika, S., Suci, N., & Ningrum, E. P. (2023). Pemberian Reinforcement Positif dalam Meningkatkan Kedisiplinan Siswa MTs X. *Jurnal Ilmiah Psikologi*, 5(2), 56–66.
- Buahana, B. N., & Sativa, F. E. (2024). Stimulasi Disiplin Pada Anak Usia 4-5 Tahun di PAUD Merpati Ampenan. *Jurnal Ilmiah Profesi Pendidikan*, 9(2), 1351–1355. <https://doi.org/10.29303/jipp.v9i2.2298>
- Fidayani, Dhini, Z. A., Krisdayanti, & Nuraida. (2025). Strategi Guru dalam Pengkondisian Kelas Anak Usia Dini: Perspektif Behavioristik Skinner. *Jurnal Pelangi*, 7(1), 37–53. <https://doi.org/10.1111/amet.12914>
- Hidayat, F., & Nizar, M. (2021). Model ADDIE (Analysis, Design, Development, Implementation and Evaluation) dalam Pembelajaran Pendidikan Agama Islam. *Jurnal Inovasi Pendidikan Agama Islam*, 1(1), 28–37.
- Husna, I., & Marlina, M. (2024). Efektivitas Positive Reinforcement untuk Mengurangi Perilaku Mengganggu bagi Anak Lamban Belajar. *Edukatif: Jurnal Ilmu Pendidikan*, 6(1), 760–769. <https://doi.org/10.31004/edukatif.v6i1.6359>
- Khusnunnisa, M., & Andriani, A. E. (2025). Development of Interactive Multimedia Assisted by Augmented Reality for Human Hearing Sense Material. *Journal of Educational Sciences*, 9(5), 4370-4387. <https://doi.org/10.31258/jes.9.5.p.4370-4387>
- Matorang, Y., Ardini, P. P., & Hardiyanti, W. E. (2023). Pengaruh Pemberian Reward Token Ekonomi Terhadap Disiplin Anak Usia Dini Kelompok B. *Student Journal of Early Childhood Education*, 3(2), 135–148. <https://doi.org/10.37411/sjece.v3i2.2456>
- Munawarah, S. (2025). Development of Augmented Reality-Based Learning Media in Science Learning on Plant Body Parts Material for Grade IV of Lasoani State Elementary School. *Journal of Educational Sciences*, 9(4), 2884-2894. <https://doi.org/10.31258/jes.9.4.p.2884-2894>
- Nazila, D., Habibi, M., & Rachmayani, I. (2025). Pengaruh Metode Token Ekonomi Terhadap Peningkatan Kedisiplinan Anak Kelompok A di TK Kreativa Mataram. *Jurnal Ilmiah Pendidikan Dasar*, 10(03), 233–243.
- Pitriani, N. R. V., Wahyuni, I. G. A. D., & Gunawan, I. K. P. (2021). Penerapan Model Addie dalam Pengembangan Media Pembelajaran Interaktif Menggunakan Lectora Inspire pada Program Studi Pendidikan Agama Hindu. *Jurnal Ilmu Pendidikan*, 4(3), 515–532.
-

- Puteri, I. A. W., & Ratnawati, S. (2024). Evaluasi Penerapan Token Ekonomy Sebagai Teknik Modifikasi Perilaku Disruptif pada Kelas Preschool di Sekolah X Kota Bogor. *IJSH: Indonesian Journal of Social and Humaties*, 02(02), 1–11.
- Rahman, Munandar, S. A., Fitriani, A., Karlina, Y., & Yumriani. (2022). Pengertian Pendidikan, Ilmu Pendidikan dan Unsur-unsur Pendidikan. *AL Urwatul Wutsqa: Kajian Pendidikan Islam*, 2(1), 1–8.
- Rangkuti, E. S., & Harahap, A. S. (2024). Kolaborasi Guru dan Orang Tua dalam Menanamkan Karakter Disiplin Anak Usia Dini Di Paud Nurul Falah Penyambungan Barat. *Jurnal Review Pendidikan Dan Pengajaran*, 7(1), 2122–2127.
- Sidabutar, N. A. L., & Reflina, R. (2022). Pengembangan Media Pembelajaran Matematika sama dengan Aplikasi Animaker pada Materi Vektor. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 6(2).
- Syahid, I. M., Istiqomah, N. A., & Azwary, K. (2024). Model Addie dan Assure dalam Pengembangan Media Pembelajaran. *Journal of International Multidisciplinary Research*, 2(5), 258–268.

How to cite this article:

Eliawati, N. L. P., Zuama, S. N., Monepa, J. M., & Nurhayati. (2026). Development of Positive Reinforcement-Based Economic Token Media to Improve Children's Discipline. *Journal of Educational Sciences*, 10(5), 24-35.
