

St. Cloud State University

## The Repository at St. Cloud State

---

Culminating Projects in Special Education

Department of Special Education

---

6-2022

### The Effectiveness of Token Economy Interventions in Adolescents with Emotional or Behavioral Disorders

Lakeia Austin

Follow this and additional works at: [https://repository.stcloudstate.edu/sped\\_etds](https://repository.stcloudstate.edu/sped_etds)



Part of the [Special Education and Teaching Commons](#)

---

#### Recommended Citation

Austin, Lakeia, "The Effectiveness of Token Economy Interventions in Adolescents with Emotional or Behavioral Disorders" (2022). *Culminating Projects in Special Education*. 125.  
[https://repository.stcloudstate.edu/sped\\_etds/125](https://repository.stcloudstate.edu/sped_etds/125)

This Starred Paper is brought to you for free and open access by the Department of Special Education at The Repository at St. Cloud State. It has been accepted for inclusion in Culminating Projects in Special Education by an authorized administrator of The Repository at St. Cloud State. For more information, please contact [tdsteman@stcloudstate.edu](mailto:tdsteman@stcloudstate.edu).

**The Effectiveness of Token Economy Interventions in Adolescents with  
Emotional or Behavioral Disorders**

by

Lakeia L. Austin

A Starred Paper

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree

Master of Science

in Special Education

June, 2022

Starred Paper Committee:  
Bradley Kaffar, Chairperson  
Hsueh (Martin) Lo

## Table of Contents

	Page
List of Table .....	3
Chapter	
1. Introduction .....	4
Research Question .....	5
Historical Overview .....	5
Importance of Topic .....	6
Focus of Paper .....	6
Definition of Terms .....	7
2. Review of Literature .....	9
Classroom Management and Disruptive and Noncompliant Behaviors .....	9
Token Economy .....	12
3. Summary of Findings .....	18
Conclusion .....	18
Recommendation for Future Research .....	19
Implications for Current Practice .....	20
Summary .....	20
References .....	22
Appendix .....	26

**List of Table**

Table	Page
1. Summary of Chapter 2 Findings .....	15

## Chapter 1: Introduction

Emotional or behavioral disorder (EBD) is an emotional disability characterized by an inability to build or maintain satisfactory interpersonal relationships with peers and teachers. General behavioral characteristics of students with EBD are defiance, aggression, and non-compliance. Known as externalizing behaviors. Internalizing behaviors are more social withdrawal, anxiety disorders, and depression. Students must show a pattern of one or more withdrawal, anxiety, or depression to be diagnosed with emotional or behavioral disorders. Students identified with Emotional or Behavioral disorders (EBD) display disruptive classroom behaviors. Students with emotional or behavioral disorders also suffer from attention and social skills deficits. Social behavior interventions help reinforce positive behaviors inside and outside of the school. Students with Emotional or Behavior disorders display both learning and behavioral problems in and outside the classroom. A token economy is one way to help students identify behaviors that are appropriate within their classrooms. Token economies offered as a reward to decrease disruptive behaviors and increase appropriate behaviors (Zlomke & Zlomke, 2003).

Self-monitoring and self-control are social skills that students with EBD need help with to succeed in the token economy. Students who use self-monitoring plus token economy to help disruptive classroom behaviors learn to own their behaviors and record them. Token economies offered as a reward to increase appropriate behaviors in classrooms. Studies have shown the effectiveness of token economy and contingency plans in classrooms (Zlomke & Zlomke, 2003).

Students can get preferred activities, objects, and treats by turning their teachers into them. Teachers also see declines in behaviors while using token economies within classrooms.

A student can self-monitor and or self-record their behavior helps improve social and emotional behavior in a school setting. The teacher can develop a point system and review it with students so that everyone is comfortable. The fact that students can self-record their behaviors and compare them to what their teacher notices could also be the beginning of relationship bonding.

### **Research Question**

Does a token economy behavior intervention increase positive behaviors for students with emotional or behavioral disorders in the classroom?

### **Historical Overview**

Abnormal or maladaptive are terms used to describe people with behaviors. Mental illness and psychopathology were terms used to describe adult conditions and stigmatize children. Emotional disturbance is a less stigmatizing term appropriate for use with children in the late 1900s (Reinert, 1972). In 1988, the National Mental Health and Special Education Coalition adopted the term Emotional or Behavioral disorders (Smith et al., 1988). In 1975, P.L. 94-142, the Education for All Handicapped Children Act was passed. This landmark law mandated services for children with disabilities. In 1990, P.L. 101-476 (IDEA (Individuals with Disabilities Education Act)) was passed (and amended in 1991, 1997, and 2004). This law was necessary for persons with emotional and behavioral disorders because it specified conditions for removing them from public school. This law also mandated the functional behavioral assessment (FBA) and behavior intervention plans (BIPs) (Achenbach, 1991). The cause of EBD is unknown; the disorder has been studied for well over 200 years (Willis-Jackson, 2017).

## **Importance of Topic**

Students with Emotional or Behavioral Disorders struggle with behavior and academics. Token economies will allow teachers to quickly reward students for displaying appropriate behaviors throughout their school day. Token economies reinforce positive behaviors, as well as backup reinforcers. Teachers can personalize rewards to fit each student's needs, showing how effective the token economy is. If a teacher finds a token economy that is working and positive behaviors are increasing, it is okay to continue to use that strategy. Working with a student with EBD students is acceptable for building relationships.

Token economies have three major parts: exhibited behaviors, tokens being rewarded for positive behaviors, turning tokens into objectives or activities, or even spending time with a preferred staff. This topic is essential could give a student token reward could be provided in any form.

## **Focus of Paper**

This paper aims to make myself and others aware of the positive behaviors seen in behaviors while using token economies. A token economy is a great reinforcement system that helps students reach desired goals with backup reinforcement. A token economy development” plan” provided a list of standard functions of behavior and desired backup reinforcers that are effective for the student. A token economy is an excellent incentive for students of all ages; it is a way to reward behaviors immediately. Students learn skills to help them plan for their future. They are setting limits of when students could get a reward if a reward is needed or given for every task. The teacher can decide how many tickets are required before students gain access to them, this plays a significant role in the token economy reward

intervention. Teachers can personalize rewards to meet the needs of all the students in the classroom. If the token economy rewards are things students are interested in, behaviors will start to decline.

The main focus of this paper is to research accurate data on how effective token economies are with students with EBD.

### **Definition of Terms**

*Emotional or Behavioral Disorder*—a disability characterized by behavioral or emotional responses in school programs so different from appropriate age, cultural, or ethnic norms that they adversely affect educational performance, including academic, social, vocational, or personal skills

*Externalizing Behaviors*—aggression, disruption, acting out, destruction of property.

*Internalizing Behaviors*—Depression, anxiety, social withdrawal, substance abuse, feelings of loneliness or guilt, feelings of sadness.

*Selective Prevention*—is conducted with a defined group at risk of developing EBD (Emotional Behavior Disorder) because they have specific biological or physical characteristics.

*Full Inclusion*—placing all children with special needs in general education classrooms is an outgrowth of the regular education initiative.

*Least Restrictive Environment (LRE)*—is the requirement in federal law that students with disabilities receive their education, to the maximum extent appropriate, with nondisabled peers. Those special education students are not removed from regular classes.

*Disruptive Behaviors*—characterized by psychologically disorganized behavior, a confused, incoherent, and disruptive patient in the manic phase (Merriam-Webster, n.d.).



*Non-compliant*—failure or refusal to comply with something (such as a rule or regulation)  
a state of not being in compliance.

## **Chapter 2: Review of Literature**

This literature review aims to examine the effectiveness of token economy in adolescent classrooms. This chapter is organized into two major parts. The first section is classroom management and the effects of disruptive and noncompliant behaviors. The second section is the token economy. This literature review looks at ten quantitative and qualitative articles from 2003 to 2021. This review will examine the impact of classroom management and the components utilized by the teacher, which include: the teacher's ability to organize supplies, and understanding of the best learning space, time, and materials. This review discusses the results of the studies and how the data represent teacher-student progress.

### **Classroom Management and Disruptive and Noncompliant Behaviors**

Classroom management affects a classroom in positive and negative ways. A study on classroom management investigated the impact of classroom management training on classroom management, differences in attitudes toward classroom management between novice and experienced teachers, and differences between male and female teachers' beliefs toward classroom management (Martin et al., 2006). Data were collected using the Attitudes and Beliefs on Classroom Control (ABCC) Inventory and a demographic questionnaire (Martin et al., 2006). In this study, there were more female subjects than males and more elementary and secondary teachers than teachers who taught all grade levels.

Data showed a difference in male and female scores, with females scoring more interventionist than males (Martin et al., 2006). Experienced teachers scored significantly higher than teachers who were not. Teachers who had experience held more realistic expectations of effectively managing their classroom (Martin et al., 2006).

In 2019, a study was conducted on essential factors for effective classroom management and how teachers motivate students (Harris, 2019). Interviews were conducted through qualitative analysis; teachers and students worked with interviewers daily. Interviews found that teachers needed more help giving positive and negative feedback. Effective teachers had their work mostly ready and considered a positive climate the main point (Harris, 2019).

A study was done in the classroom to see how effective a classroom management game called the Caterpillar Game would reduce disruptive behaviors and increase teacher praise (Floress et al., 2017). Effective classroom management is necessary to have a productive class; the students in this classroom used the Caterpillar Game. The classroom teacher was observed by a researcher and was asked to answer six questions to help decide if the game was a successful management strategy (Floress et al., 2017). Observations were done by Floress et al. (2017) during school hours; feedback was given to the teacher for her praise as well as student disruptive behaviors. The Caterpillar Game was effective classroom management. The results showed that student disruptive behaviors went down, and teacher praise increased during academic time.

Another study was done to determine if affirmative classroom management would improve student behaviors (Clair et al., 2018). Data collected by the researchers were behavioral observations in school using direct systematic observations of the classroom (Clair et al., 2018). The teachers used peer modeling of reach to help instruct specific instruction. Results showed that more positive statements reach + reprimand during intervention phases than baseline reprimand only. More reach statements than reprimand statements are usually necessary to shape student behavior (Clair et al., 2018).

Classroom management is effective and should be utilized; the impact of classroom management helps the teacher create a positive learning environment so that students are successful learners. Students are happy and enjoy coming to school when they're in a positive learning environment.

Students who display disruptive and non-compliant behaviors affect those around them, including teachers and peers (Powers & Bierman, 2013). In 2013, a study was administered by Powers and Bierman to see how disruptive behaviors impact peer relationships. There were six items on a scale that described the range of aggressive and oppositional behaviors (Powers & Bierman, 2013). The points on the scale ranged from 6 (almost always) to 1 (rarely.) Results showed that male students displayed higher aggressive and disruptive behaviors than female students and that students reacted to the rules of conduct across the environment.

Organized classroom management is an excellent factor for classroom success. Students displaying disruptive behaviors most often will have a challenging time with classroom learning. Disruptive behaviors include students talking in class when others are talking, making loud noises, and being rude or disrespectful to their classmates and teachers.

A study was done to see if a preference assessment in relation to a token economy could decrease disruptive behaviors (Romani et al., 2017). The study showed that students did not show any disruptive or non-complaint behaviors when engaged in preferred activities. The study also showed that students were involved in higher non-compliant and disruptive behavior when non-preferred tasks were offered; offering a job will help motivate students.

Extra support is given at school when students engage in non-compliant and disruptive behaviors. Teachers use the token economy interventions to help support students as well.

Bronstein et al. (2020) did a study to determine student behavior concerns through a support staff lens in the classroom. The study was separated into three different sections. The research showed that the most frequent behavior reported among support staff was disruptive behavior (Bronstein et al., 2020).

### **Token Economy**

Among classroom management strategies, the token economy has been widely considered to have sufficient empirical support to warrant recommended use in a school setting to reduce the occurrence of problem behaviors (Mercer & Pullen, 2009; Salend, 2008; Simonsen et al., 2008).

A token economy is a contingency management system that allows participants to earn tokens for presenting specific, positive behaviors that are later exchanged for predetermined backup reinforcement (Kazdin, 1977). It should be noted that the standard features of token economies are aligned with the critical components of other behavior modification programs (Hall, 1979). These five elements include (a) the identification of specific target behaviors, (b) the identification tokens for conditioned reinforcement, (c) the development of a menu of backup reinforcement options to reward appropriate behavior, (d) the creation of an explicit protocol for exchanging conditioned reinforcers for backup reinforcers, and (e) the development of a procedure for fading the use of the token economy system (Wolery et al., 1988).

There are different ways a teacher can implement token economies in their classrooms. A token economy is a handful of interventions found in a classroom setting (Soares et al., 2016). Token economy strategies also help teachers motivate students with appropriate behavior. A token economy is an intensive, in-class positive reinforcement program for building up and

maintaining proper classroom performance and behavior (Samburgo, 2017). Examples of token economies would be a known school reward such as a ticket, a coin, a snack, a sticker, and an item that students could purchase from their school reward store. Samburgo did a study to see if appropriate behaviors would increase with a token economy system. There were three different data collection tools to administer the examination (Samburgo, 2017). The intervention results showed a reduction of disruptive behaviors, specifically out of the seat, off task, and talking (Samburgo, 2017).

A token economy can help overcome some of the difficulties associated with assessing classroom participation (Junn, 1994). A study was done to see if a token economy would improve students' behaviors. The study took place over six weeks in an A-B-A Design. The first 2 weeks were allocated for baseline (A), 2 weeks for intervention (B), and the last 2 weeks were given for the procedures without intervention (A) (Aziz & Yasin, 2018). If the student displayed no disruptive behaviors, a sticker would get put on the token economy chart. The first week's results showed that disruptive behaviors were happening. The token economy was implemented in the following third and fourth weeks, and disruptive behaviors started to decline (Aziz & Yasin, 2018). In the entire 6 weeks, the total of disruptive behaviors had decreased. The token economy played an essential role in the conduct of medication (Aziz & Yasin, 2018).

Token economies are exchanged for backup reinforcers and function as conditioned reinforcers. The research was done in 2015 to determine if a token economy reduced behaviors (Becraft & Rolider, 2015). Correct target responses were looked at when a token was given, and verbal gestures and physical prompts were given. The researcher used the conditioned reinforcer assessment and ABA reversal design. The researcher found that the students completed work

tasks at a low rate in the no reinforcement stage and had high responses when observed in the reinforcement stage (Becraft & Rolider, 2015).

A study was done, and data from this study came from classes that used token economy to encourage student participation by asking questions in class. Participants completed a demographic sheet, Big Five Inventory (BFI), and Orientation Questionnaire (GOQ) to provide sample descriptive information. Results showed that out of the students who participated in this study, 251 chose to participate in class by asking questions. Students who chose not to participate dropped out early in the semester (Benet- Martinez & John, 1998).

A token economy intervention is generally used in a classroom to increase positive behavior. Token economy interventions help educators target behaviors; students will engage in non-compliant and disruptive behaviors without intervention. Educators need to build rapport with students to help manage non-compliant and disruptive behaviors.

This study took place in a special education setting IV classroom with four students, all boys in middle school. The students' ages ranged from 11 to 14 years old. Two students are Caucasian, one is African American, and one is Hispanic. All students have at least one behavior goal in their Individualized Education Plans (IEP). Every morning students received 15 minutes of Social Emotional Learning (SEL), including a check-in. Each student had 6 hours of education support professional throughout their school day. The students spent most of their day in a general education classroom setting.

This study took place in the 2021-2022 school year. The students returned to the building full time after the Covid 19 pandemic. One of the students said this was their first time back in the building in 2 years. The other three students did some virtual and some in-person days.

During the 6 weeks of collecting data from September 2021 to October 2021, the students who were in person were able to engage in this procedure, and the token economy intervention was much easier to track. Due to the lack of peer connection, students displayed a higher amount of disruptive and non-compliant behaviors.

This research aimed to answer whether token economy behavior intervention increases positive behaviors in a classroom. Most of the studies' projects were done in a six-period time frame. The researcher observed the participant in the first 2 weeks; the teacher took data on interventions run during the next 2 weeks. Teachers created a point system for each student to help students monitor their behaviors. The point system was a perfect way for students to connect and respond to their disruptive and non-compliant behaviors.

**Table 1**

*Summary of Chapter 2 Findings*

Authors	Study Design	Participants	Procedure	Findings
Boniecki, K. A., & Moore, S. (2003)	Quantitative	Sixty-three undergraduate students enrolled in an introductory psychology course at the University of Central Arkansas participated in the study.	Participants engaged in class by raising their hands for more classroom participation; participants earned a token award.	The instructor asked 16 questions during baseline, 14 during the token economy, and 16 during removal. Overall, the instructor asked a mean of 4.18 questions per class meeting. Only once did no student raise a hand following a question from the instructor. We recorded and analyzed this question, which occurred during baseline, as zero directed participation, but removed it from the analysis of latency to participation
Zlomke, K., & Zlomke, L. (2003)	Single subject design	A 13-year male participated in full school days within a self-contained special education classroom with other students displaying behaviors.	The study was the A-B-C-B single-subject design. The researcher collected data in 5 intervals during the day	Effectiveness of token economies in reducing minor, disruptive, and aggressive classroom behaviors in youth



**Table 1** (continued)

Maggin, D. M., Chafouleas, S. M., Goddard, K. M., & Johnson, A. H. (2010)	Quantitative	Groups of 24 students separated by gender, age, grade, ethnicity, language, socioeconomic, disability, if applicable, and achievement level and classroom or education setting	The study was a coding system that was developed to analyze the various aspect of the studies, such as participant and setting characteristics, independent variable, dependent variable, and methodological quality.	There is currently a lack of support for the token economy as an evidence-based practice.
Aziz, N. A. A., & Yasin, M. H. M. (2018)	Qualitative	This study was on an 11-year-old male student who attended a primary school. A doctor diagnosed him with an intellectual disability when he was eight years old. During the Malay Language learning session, negative behaviors like negligence, not paying attention, and disturbing friends when completing the independent task.	This study was carried out in a classroom environment of the Special Education Integration Program in Keru Primary School. With four students with learning disabilities, the research design employed was an A-B-A single-subject design. The duration of this research was six weeks. The first two weeks were allocated for baseline (A), two weeks for intervention (B), and the last two weeks were allocated for procedures without intervention (A).	Replicate previous research on the effectiveness of token economies in enhancing students' concentration during the completion of tasks. Tangible reinforcement of interest has attracted the respondent to cooperate in helping himself to behave.
Clair, E. B., Bahr, M. W., Quach, H. L., & LeDuc, J. D. (2018)	Case study	Four students, a general education teacher, and a school consultant participated in the study. Students attended a public urban elementary school (PK-6) in the Midwest United States with a total student population of approximately 450 students.	This study used an ABAB design to assess 3Phases Effectiveness. The first phase (A) was baseline data collection. Phase B comprised implementation of the 3Phases followed by a return to baseline and then reimplementation of the 3Phases. Student performance was assessed by observation of AEB, off-task motor, and off-task verbal. Because the BOSS combines both active and passive engagement into a single category, AEB, the two off-task categories were combined into a single category representing OFT	This study had higher positive to negative rates during an intervention.
Floress, M. T., Rock, A. L., & Hailemariam, A. (2017)	Qualitative	Classroom Teacher	Increased teacher praise and reduction in student disruptive behavior were observed across all three settings and were sustained eight weeks later.	This study extends the literature on classroom management systems by providing initial support for the effectiveness of the Caterpillar Game, an easy and straightforward classroom management tool to implement.

**Table 1** (continued)

Harris, A. (2019)	Qualitative	Classroom teacher	Interviews with teachers needing more knowledge in feedback, praise, handling mistakes, and having clear lessons	Students like to go to school because of the positive classroom environment.
Martin, N. K., Yin, Z., & Mayall, H. (2006)	Qualitative	163 certified teachers employed by the public-school district	ABCC Inventory, an instrument designed to measure teachers' perceptions of their classroom management beliefs and practices	Novice teacher was defined as those with zero to five years' experience. There was a significant level between males and females and novice and experienced teachers in instruction management.
Powers, C. J., & Bierman, K. L. (2013)	Quantitative	4,096 children (50.6% boys) who were attending 27 schools assigned to the no-treatment control group of the Fast Track program	1,192 (30%) children with missing friendship data were excluded from analyses, primarily (N 1,092, 27%) because of moves away from the core schools where sociometric data were collected	Together, these results suggest that these sociometric data were missing at random with regard to the aggressive nominations, with aggression represented equally among the children who did and did not have reciprocated friendship data.

### **Chapter 3: Summary of Findings**

This review examined the effectiveness of the token economy; rather, it could decrease behaviors among students with emotional and behavioral disorders in classrooms. Chapter 1 provided the background information on moving, behavioral disorders, and token economy. Chapter 2 provided a review of the research literature. This chapter will review the research's findings, recommendations, and implications. Eleven articles were reviewed that examined the effectiveness of token economy in classrooms based on student teacher-student engagement. Five of the studies used intervention for classroom management and disruptive and non-compliant behaviors. The last six articles focused on the token economy intervention.

#### **Conclusion**

Of the 10 studies reviewed, Martin et al. (2006) collected data using the Attitudes and Beliefs on Classroom Control (ABCC) Inventory and a demographic questionnaire; Harris (2019) data included interviews which collected data through qualitative analysis of teachers and students who worked with interviewers daily. Floress et al. (2017) collected data in the classroom to see how effective classroom management could be with a game called (Caterpillar Game), if it reduces disruptive behaviors and increases teacher praise. Clair et al.'s (2018) data collected by researchers were behavioral observations in school for direct systematic classroom observations. Powers and Bierman's (2013) data indicated that disruptive behaviors impact peer relationships. There were six items on a scale that described the range of aggressive and oppositional behaviors. A study was done to see if a preference assessment in relation to a token economy could decrease disruptive behaviors (Romani et al., 2017). Bronstein et al. (2020) collected data that showed the most frequent behavior reported among support staff was disruptive behavior.

Samburgo's (2017) data collection had three different intervention results that showed a reduction of disruptive behaviors, specifically out of the seat, off task, and talking. The study took place over 6 weeks in an A-B-A design. The first 2 weeks were allocated for baseline (A), 2 weeks for intervention (B), and the last 2 weeks were issued for the procedures without intervention (A) (Aziz & Yasin, 2018). All data evaluated the effectiveness of the token economy intervention within classrooms, stating that behaviors did decrease, but data did not indicate a significant difference between pretest and posttest. The studies were complex, with all the different changes and accommodations needed to happen due to the pandemic. The researcher suggested the studies be done over with modification because of the inconsistencies of the last few years in schools.

### **Recommendation for Future Research**

Future research would focus more on non-compliant and disruptive behaviors in classrooms. The limitation the researcher ran into was low participants' number. More people would have given more significant points and or more tallies that would have helped collect a more considerable amount of data. The researcher stated that modifications were needed for accurate results. There is room for improvement with the token economy. Additional research would help identify those areas; what interventions or strategies an educator could implement if a student loses motivation to earn tokens: positive strategies or interventions to use as an educator, when students get upset when they do not earn tokens: and what to do as an educator if you lose track of how many tokens a student makes. Future research would identify why participants displayed certain behaviors as well as focus on the time of day or task the behaviors were happening.

### **Implications for Current Practice**

As a first-year educator, it is my responsibility to meet the needs of the students in my classroom. I have developed different token economies within my classroom to keep students engaged with learning. Token economies are tangible rewards given mainly on the spot with positive behaviors when students finish an academic task and when students are being responsible, honest, safe, and respectful. I created social stories and processing sheets to help regulate non-compliant and disruptive behaviors in the classroom. Processing sheets were used as a resource sheet for students to help keep their day in order and track their points for the day. With various interventions set in place, I am meeting students where they're at emotionally and academically. I have noticed that non-compliant and disruptive behaviors are decreasing, and other learned positive behaviors are being displayed. Conversations and praise are given to each student; students feel better about their learning engagement and independence; the ultimate goal is demonstrating their receptiveness and willingness to connect token economies with personal rewards. This strategic intervention allows students and classroom staff to build rapport for a successful learning environment for present and future instructional learning opportunities. With a token economy intervention, students stay motivated and strive for all future learning endeavors.

### **Summary**

Intervention to help their students stay on-task, focused, and engaged. The findings of the studies used had different routines and strategies. Due to having small participant amounts, there wasn't a significant difference between the pretest and posttest. It is believed that this study should be done again with more participants and modifications. This research aims to allow

educators an outlet to connect with their students and have positive classroom management strategies to use to help decrease disruptive and non-compliant behaviors. Consistency and modification within classroom would also allow teachers to keep and maintain positive classroom management. This literature review and the studies indicate that a token economy is an effective intervention for students with emotional and behavioral disorders within the classroom.

## References

- Achenbach, T. M. (1991). *Manual for child behavior checklist/ 4–18 and 1991 profile*. Burlington: University of Vermont Department of Psychiatry.
- Aziz, N. A. A., & Yasin, M. H. M. (2018). Token economy to improve concentration among students with learning disabilities in primary school. *Journal of ICSAR*, 2(1), 32–36. <https://doi.org/10.17977/um005v2i12018p032>
- Becraft, J., & Rolider, N. (2015). Reinforcer variation in a token economy. *Behavioral Interventions*, 30. 10.1002/bin.1401
- Benet-Martinez, V., & John, O. P. (1998). *Los Cinco Grandes* across cultures and ethnic groups: Multi-trait multi-method analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75(3), 729-750.
- Boniecki, K. A., & Moore, S. (2003). Breaking the silence: Using a token economy to reinforce classroom participation. *The Teaching of Psychology*, 30(3), 224–227. [https://doi.org/10.1207/s15328023top3003\\_05](https://doi.org/10.1207/s15328023top3003_05)
- Bronstein, B., Breeden, N. Glover, T. A., & Reddy, L. A. (2020). Paraprofessionals’ perceptions of behavior problems in elementary school classrooms. In *The Journal of Special Education* (pp. 1-10). Hammill Institute on Disabilities. Sage Publications. Doi: 10.1177/0022466920961085
- Clair, E. B., Bahr, M. W., Quach, H. L., & LeDuc, J. D. (2018). The positive plus program: Affirmative classroom management to improve student behavior. *Behavioral Interventions*, 33(3), 221–236. <https://doi.org/10.1002/bin.1632>

- Floress, M. T., Rock, A. L., & Hailemariam, A. (2017). The caterpillar game: A classroom management system. *Psychology in the Schools, 54*(4), 385–403.  
<https://doi.org/10.1002/pits.22000>
- Hall, J. (1979). Token economy strategies in criminal institutions. *The British Journal of Criminology, 19*(4), 373–383. <https://doi.org/10.1093/oxfordjournals.bjc.a047033>
- Harris, A. (2019). Effective classroom management and adequate classroom time. *Teaching and Learning in the Effective School, (1)* 53-63. Doi:10.4324/9780429398117-6
- Junn, E. (1994). 'Pearls of wisdom': Enhancing student class participation with an innovative exercise. *Journal of Instructional Psychology, 21*(4), 385-387.
- Kazdin, A. E. (1977). *The token economy: A review and evaluation*. New York, NY: Plenum Press.
- Maggin, D. M., Chafouleas, S. M., Goddard, K. M., & Johnson, A. H. (2010). A systematic evaluation of token economies as a classroom management tool for students with challenging behavior. *Journal of School Psychology, 49*(5), 529–554.  
10.1016/j.jsp.2011.05.001
- Martin, N. K., Yin, Z., & Mayall, H. (2006, February). *Classroom management training, teaching experience and gender: do these variables impact teachers' attitudes and beliefs toward classroom management style?* [Paper presentation]. Annual Conference of the Southwest Educational Research Association, Austin, TX.
- Mercer, D., & Pullen, P. (2009). *Students with learning disabilities* (7<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Education.



- Merriam-Webster. (n.d.). Disruptive. In *Merriam-Webster.com dictionary*. Retrieved April 10, 2022, from <https://www.merriam-webster.com/dictionary/disruptive>
- Powers, C. J., & Bierman, K. L. (2013). The multifaceted impact of peer relations on aggressive-disruptive behavior in early elementary school. *Developmental Psychology, 49*(6), 1174–1186. <https://doi.org/10.1037/a0028400>
- Reinert, H. (1972). The emotionally disturbed. In B. Gearheart (Ed.), *Education of the exceptional child* (pp. 419–451). San Francisco: Intext.
- Romani, P. W., Alcorn, A. S., Miller, J. R., & Clark, G. (2017). Preference assessment for dimensions of reinforcement to inform token economies targeting problem behavior. *Journal of Behavioral Education, 26*(3), 221–237. <https://doi.org/10.1007/s10864-017-9270-y>
- Salend, S. J. (2008). Determining appropriate testing accommodations: Complying with NCLB and IDEIA. *Teaching Exceptional Children, 40*(4), 14–22.
- Samburgo, N. (2017, September). *Token economy systems to increase appropriate behaviors*. Classroom Management Series. National Association of Special Education Teachers (NASSET). Retrieved from [https://www.naset.org/fileadmin/USER\\_UPLOADS\\_PROTECTED/Classroom\\_Management/2017/classroom\\_management\\_series\\_\\_](https://www.naset.org/fileadmin/USER_UPLOADS_PROTECTED/Classroom_Management/2017/classroom_management_series__)
- Simonsen, B., Fairbanks, S., Briesch, A., & Myers, D., & Sugai, G. (2008). Evidence-based practices in classroom management: Considerations for research to practice. *Education and Treatment of Children, 31*(3), 351-380. [10.1353/etc.0.0007September\\_2017\\_Token\\_Economy\\_Systems\\_to\\_Increase\\_Appropriate\\_Behaviors.pdf](https://doi.org/10.1353/etc.0.0007September_2017_Token_Economy_Systems_to_Increase_Appropriate_Behaviors.pdf)

- Smith, C. R., Wood, F. H., & Grimes, J. (1988). Issues in the identification and placement of behaviorally disordered students. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), *Handbook of special education: Research and practice* (Vol. 2, pp. 95–124). New York: Pergamon Press.
- Soares, D. A., Harrison, J. R., Vannest, K. J., & McClelland, S. S. (2016). School psychology review. *Effect Size for Token Economy Use in Contemporary Classroom Settings: A Meta-Analysis of Single-Case Research*, 45(4), 379–395. <https://www-proquestcom.ezproxy.nwciowa.edu/docview/1845682683?accountid=28306>
- Willis-Jackson, C. (2017). A historical perspective of the field of emotional and behavioral disorders: A review of literature. *International Journal of Psychology and Counselling*, 11(8), 81–85. Doi: 10.5897/IJPC2019.0512
- Wolery, M., Bailey, D. B., Jr., & Sugai, G. M. (1988). *Effective teaching: Principles and procedures of applied behavior analysis with exceptional students*. Boston: Allyn and Bacon.
- Zlomke, K., & Zlomke, L. (2003). Token economy plus self-monitoring to reduce disruptive classroom behaviors. *The Behavior Analyst Today*, 4(2), 177–182. <https://doi.org/10.1037/h0100117>

## Appendix

### Example of Token Economy Reward Sheets

Point System—working towards, points for tech time,

Points for community outings

Week 1	Monday	Tuesday	Wednesday	Thursday	Friday
Student A					
Student B					
Student C					
Student D					
Total points					
Week 2	Monday	Tuesday	Wednesday	Thursday	Friday
Student A					
Student B					
Student C					
Student D					



**R**espectful

**H**onest

**R**esponsible

**S**afe

I am working towards a reward lunch

Student A	Student B	Student C	Student D

**Class Store purchases 1 item per column**

25 Tickets	35 Tickets	50 Tickets	75 Tickets	100 Tickets	150 Tickets
Fruit snack	Chips	Go-cart on Fridays	Pop	Smoothie common ground	Special lunch Friday's
Granola bar	Juice	Extra 10 min tech time	Ice drink	Ice drink & chip	

Student Reward	
Student A	Free period, tech time, hot chips
Student B	Art material, headphones, Ramen
Student C	Pop-tart, ice drink, time with preferred staff
Student D	Free period, Chicken Ramen, hot chocolate