

# Workshop Handout

## *Creating and Maintaining a Token Economy*

Current Research and Best Practice

By Jonathan W. Ivy, Ph.D., BCBA-D  
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## Current Version and Disclaimer

Hello Interested Individual,

Enclosed is an early version, a draft of my workshop, *Creating and Maintaining a Token Economy: Current Research and Best Practice*. Although this version includes the “core” of my talk, expect some minor tweaks, edits, and adjustments. Further, please excuse any hasty typos or grammar mistakes, this will be the focus of future revisions.

Token systems of reinforcement have been a major focus of my recent research. As a clinician, I have had the opportunity to arrange token economies both small and large. I look forward to our time together. Please bring your questions regarding token economies.

See you at the Conference.

Jonathan W. Ivy

# Abstract

A token economy is a complex system of reinforcement in which conditioned reinforcement in the form of token presentation or removal occurs contingent upon a target behavior (or behaviors). Tokens are then exchanged, once specific environmental conditions are met (e.g., the passage of a pre-determined amount of time), for access to already established reinforcers (i.e., back-up reinforcers). Although there are many possible procedural variations, a token economy contains these basic mechanics. The complexity of this operant technology is derived from the interconnected components that are inherent in all token economies. Although the token economy is widely disseminated and well-established, there are few sources that provide practitioners and researchers with guidelines as to the development of a token economy. Further, as much of the development in the conceptualization of a token economy has occurred in basic research, Applied Behavior Analysts are often unfamiliar with these findings, which are relevant to applied work. In this workshop, attendees will learn to identify the six inherent components of a token economy, develop and maintain a token economy, and program for common token economy procedural variations. Finally, recent research – both basic and applied – will be discussed, with a focus on implication for applied work.

# Learning Objectives

- Label and describe all six inherent components of a token economy.
- Distinguish between research supported and unsupported token economy procedural variations.
- Define conditioned and generalized conditioned reinforcement.
- Describe two different procedures to condition a neutral stimulus to function as a reinforcer.
- Select initial token production criteria and plan for schedule thinning.
- Distinguish between response and time based exchange opportunities.

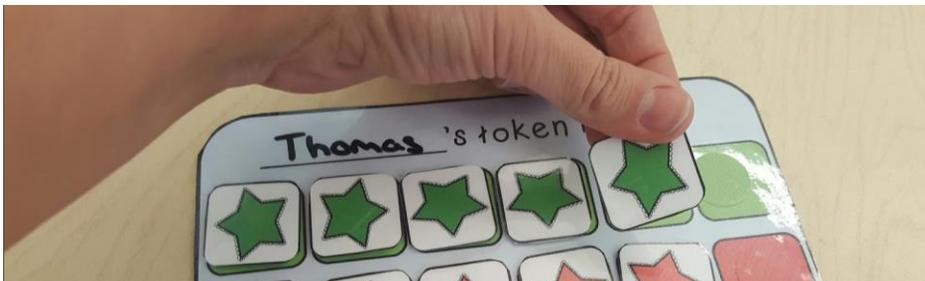
# Speaker Bio

Jonathan W. Ivy, PhD, BCBA-D, is an assistant professor of psychology at Penn State. Dr. Ivy received his doctorate in applied behavior analysis and special education from the Ohio State University in 2011 and a master's degree in applied behavior analysis from Penn State in 2005. He has worked with individuals who engage in severe challenging behaviors, at the group and individual level, for more than a decade. He has helped parents and professionals develop and implement comprehensive behavior change programs designed to increase functional skills and decrease challenging behaviors. He has served as a consultant for school districts, youth residential programs, and partial hospitalization programs to address a wide range of needs. In 2013, Dr. Ivy was nominated president of the Pennsylvania Association for Behavior Analysis. He regularly gives professional presentations at national conferences and workshops, and has an active research agenda with multiple publications in peer-reviewed journals. Dr. Ivy also enjoys following the research interests of his students.



## *Creating and Maintaining a Token Economy*

### Current Research and Best Practice



Jonathan W. Ivy, Ph.D., BCBA-D  
Assistant Professor  
The Pennsylvania State University - HBG

# The Token Economy Advantage



## The Token Economy Advantage

- **Highly Portable and Non-Disruptive.** A token can easily be delivered across a wide range of environmental conditions with minimum disruption to on-going activity or behavior (Kazdin & Bootzin, 1972).



# The Token Economy Advantage

- **Mitigate the Momentary Effects of Motivation Change.** A token paired with a wide range of backup reinforcers is likely to be effective across a range of motivating operation conditions (Ivy et al., 2015; Moher et al., 2008).



# The Token Economy Advantage

- **Highly Customizable and Scalable.** The token economy is exceptionally customizable and scalable, few codified behavior interventions have been as successful at both a micro and macro scale (Ivy et al., 2017).

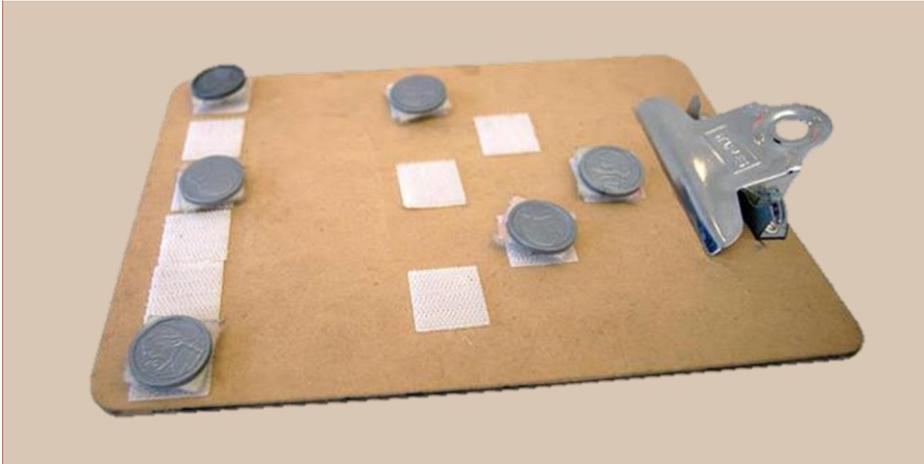
Developed a token economy to increase attending to a teacher for a child with autism during brief sessions.

(Tarbox et al., 2006)

Developed a massive token economy for 600 open-pit mine operators to increase a range of safety related behaviors and performance.

(Fox et al., 1987)

# The Token Economy in Practice



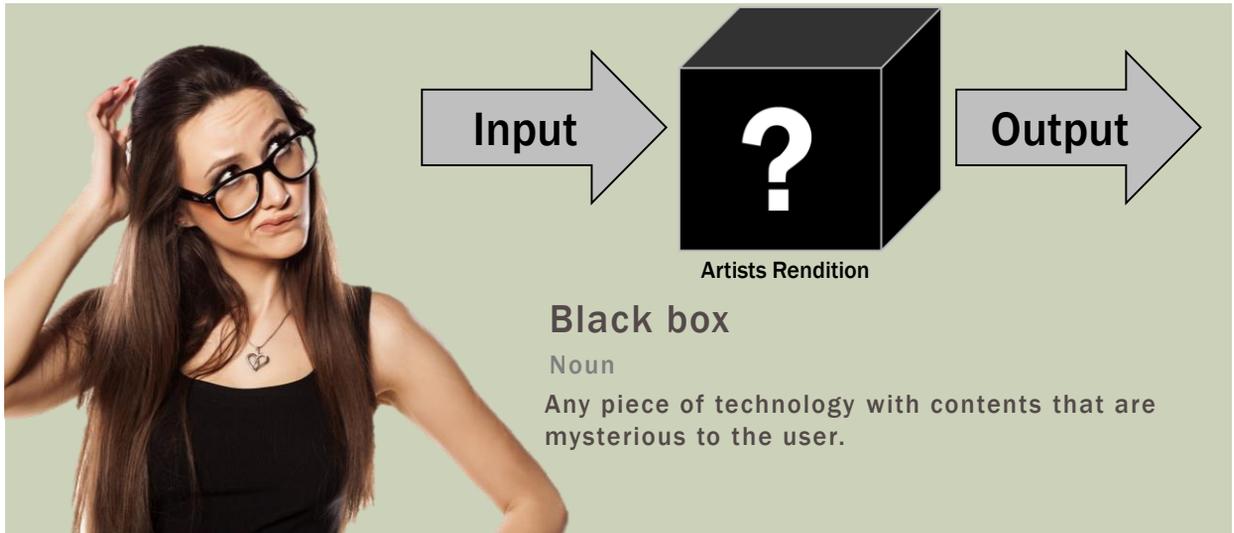
## A Classroom Token Economy

- **The Context:** Mrs. Jenkins, a behavior therapist, developed a token economy for Mr. Smith to decrease “*problem behavior*” and increase “*desired behavior*.”
- **The Token Economy:** Mr. Smith delivers a token whenever he observes students “*engaging in appropriate behavior*.” At certain times, students can exchange the tokens for prizes.

***Is the description of our token economy complete?***

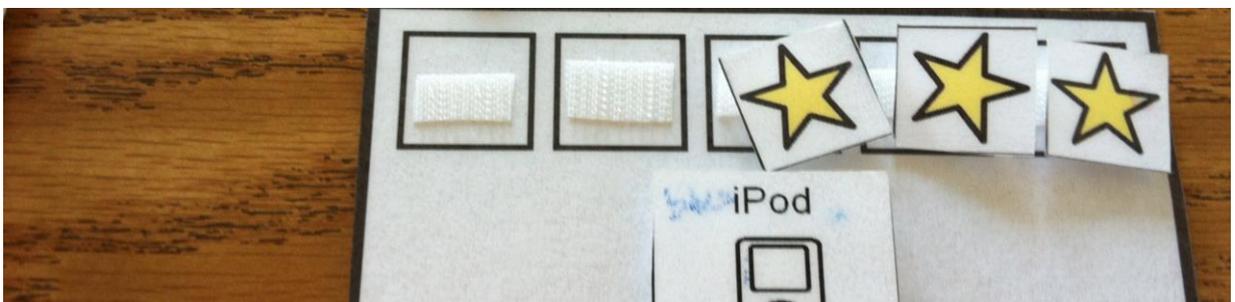


# A Black Box Technology



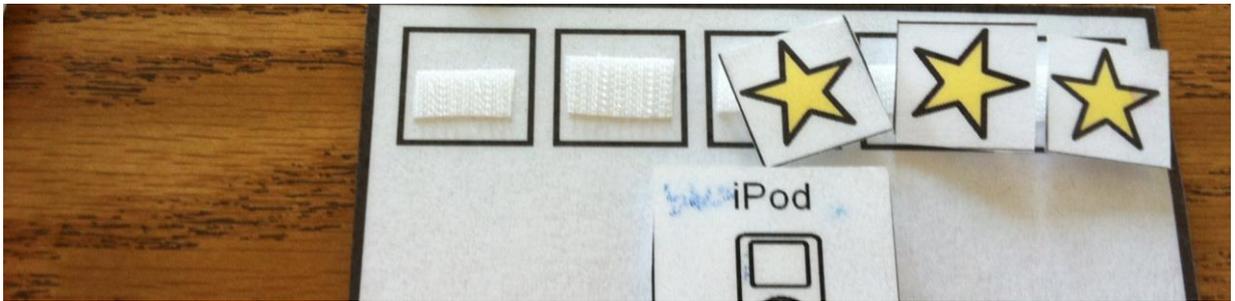
# The Token Economy

- Incomplete or non-explicit descriptions of an intervention can:
  - Result in treatment failures in applied settings.
  - Make it difficult to replicate research.
  - Slow progress on intervention refinement and development.
  - Promote a capricious-style of programming.



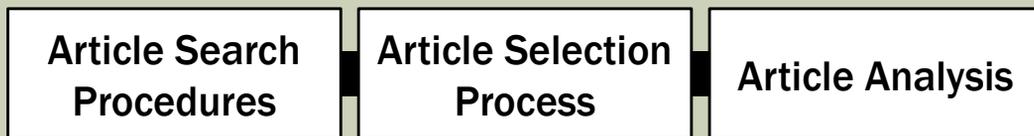
# The Token Economy

- **Review Purpose:** Evaluate the extent to which the six components of a token economy are adequately identified and described in replicable detail in articles published between 2000 and 2015.
- **A Better Token Economy.** Inform future research to address limitation; guide practitioners to the use of best and complete practices.



## Method

- **Literature Review Procedures** followed a three-step sequence:



# Method



Article Search  
Procedures

Article Selection  
Process

Article Analysis

■ **Literature Review Procedures.**

- **Database Search.** Online search of PsycINFO and ERIC using terms *token economy*, *token*, and *token reinforcement*; from 2000 to 2015 in peer-reviewed, English language journals.
- **Backwards Reference Search.** Reference section of articles that met inclusionary criteria were searched to identify additional articles.

# Method



Article Search  
Procedures

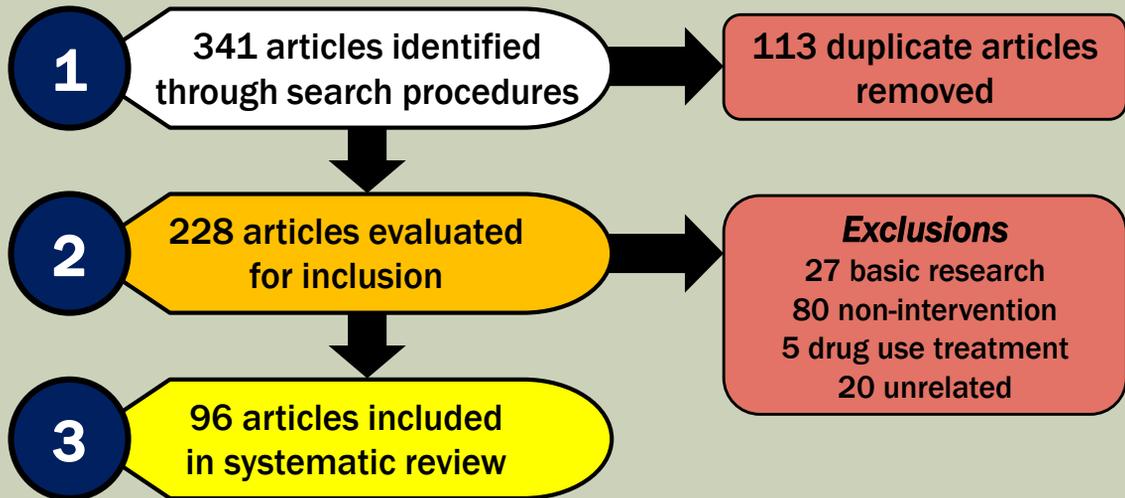
Article Selection  
Process

Article Analysis

■ **Literature Review Procedures.**

- **Exclusion Criteria.** The title and abstract, and in some cases the full article, were reviewed; literature reviews, conceptual papers, drug-use treatments, and basic research were excluded from the analysis.
- **Inclusion Criteria.** Articles that included a token economy as an independent variable, or part of a treatment package; evaluated using an experimental designs were included in the review and coded.

# Method



# Method

Article Search  
Procedures

Article Selection  
Process

Article Analysis

- **Literature Review Procedures.**
  - **Procedural Description.** The presence or absence of a replicable description was recorded for each token economy component; further defined for each component.

# Method

Article Search  
Procedures

Article Selection  
Process

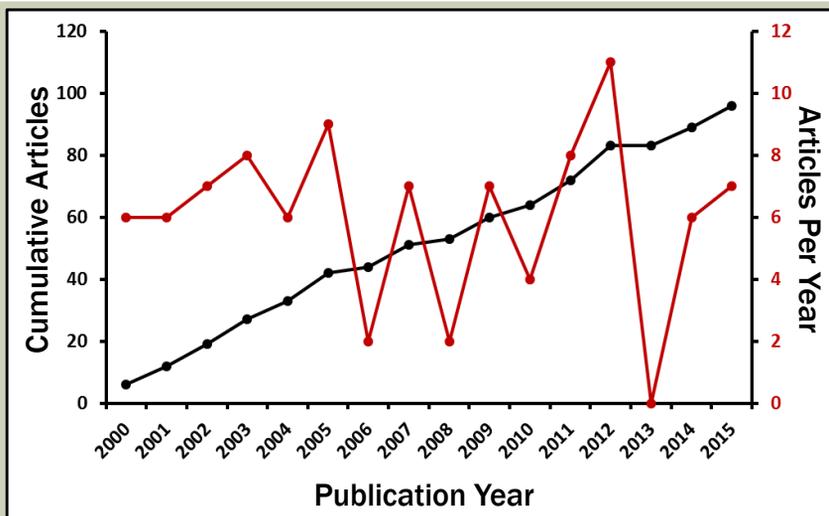
Article Analysis

■ **Literature Review Procedures.**

- **Matrix and Coding.** Data entered into a nine-item matrix; binary code (0 or 1) and text entry; analyzed using Excel PivotTables function.



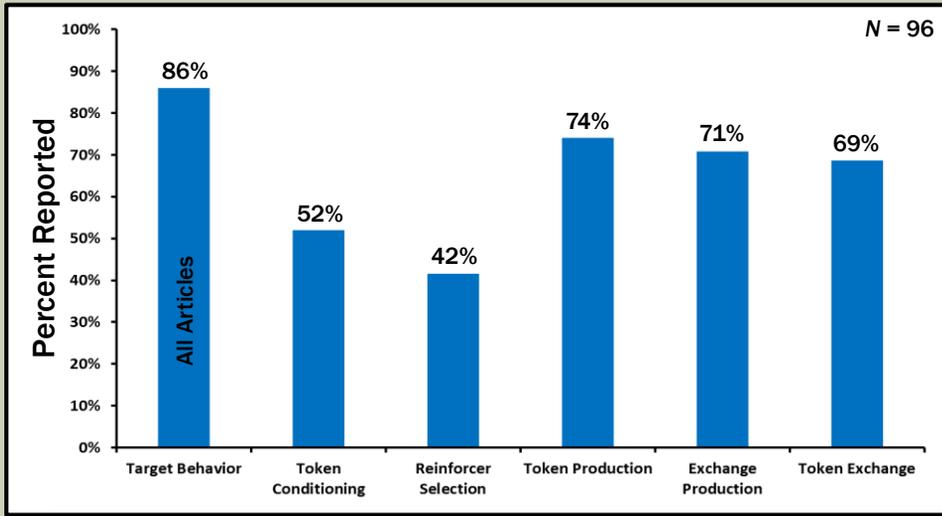
# Results



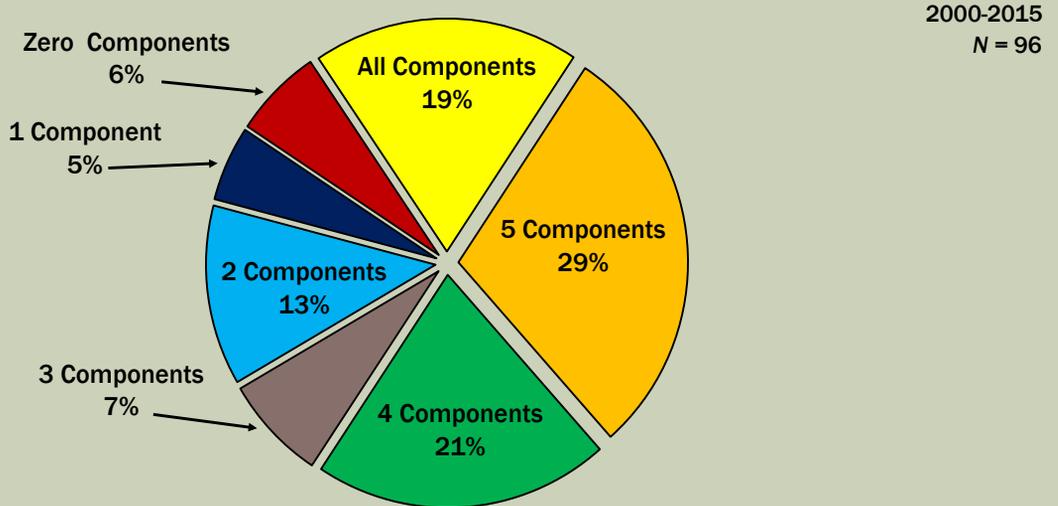
Journal	Number
JABA	17
BIN	10
RADD	4
Bmod	3
CF Beh Ther	3
Clinical CS	3
ETC	3
JOBE	3
JPBI	3
RIDD	3
Two Articles	6
Single Article	32



# Results



# Results





# Discussion

- **Summary.** Results suggest technological gaps between intervention descriptions and the inherent mechanisms of a token economy.
  - **A Falling Grade.** 18 of the 96 articles included fully replicable and technological intervention descriptions.
- **Token Economy Language.** Less than 3% of the articles included the terminology of token reinforcement.
  - **On Terms.** Behavior analysts should adopt the terms token production, exchange production, and token exchange in practice and research – basic researchers have.
- **A Twofold Problem.** Limited basic research on token reinforcement (Hackenberg, 2009) and technological gaps in applied research undermine the inherent efficacy and efficiency of token systems.

## Cracking Open the Black Box



# Token Economy Mechanics



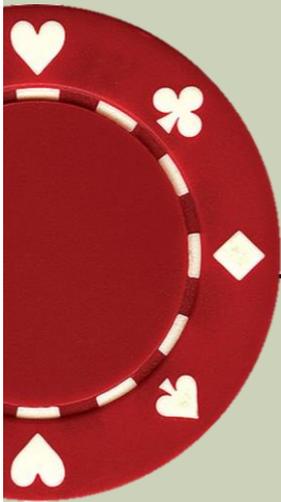
## Token Economy Mechanics

- On Terms:** A token economy is a complex system of reinforcement in which a token is delivered (or removed) contingent upon target behavior(s) and can be later exchanged for back-up reinforcers.



Hackenberg, 2009.

# Token Economy Mechanics



- **Token:** A stimulus that is exchanged for goods and services (Hackenberg, 2009); often function as a conditioned or generalized reinforcer.
- **Token Qualities.** Not all tokens are created equally; generally select a token that is...

Durable

Inexpensive

Salient

Transportable

Difficult to Counterfeit

# Token Economy Mechanics



Neutral Stimulus

- or -



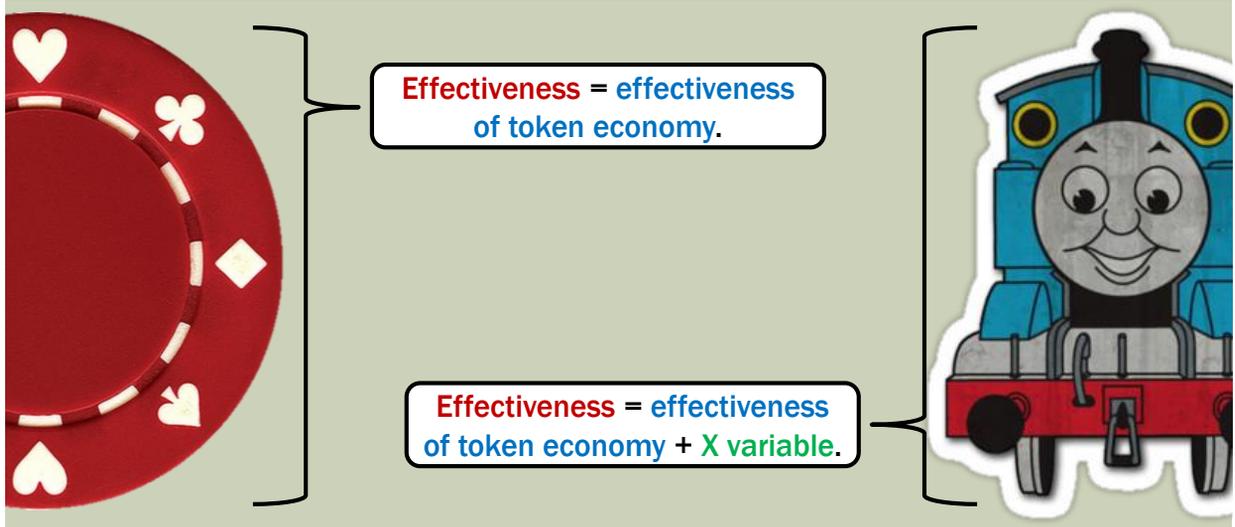
Preferred Stimulus

Should my token be a **neutral** or **preferred** stimulus? Does it even matter?



- Carnett et al. (2014) found that tokens based on "**perseverative interests**" were more effective than tokens based on non-perseverative interests tokens.
  - How robust is this effect?

# Token Economy Mechanics



# Token Economy Mechanics

- **Target Behavior:** The operationalized response for which tokens are made contingent upon the occurrence (e.g., desired behavior) or absence (e.g., problem behavior).
- **Standard Rules Apply.** The same qualities that apply to the operational description of a target behavior for measurement apply here.

Objective

Measurable

Boundaries



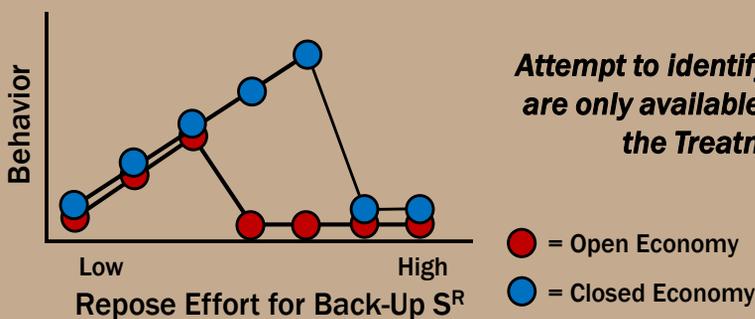
# Token Economy Mechanics

- **Back-Up Reinforcers:** Stimuli with reinforcing function, available via exchange or “purchase” with tokens; a token economy could be conceptualized as a complex system of back-up reinforcer delivery.



# Token Economy Mechanics

- **Economy Type:** In Behavioral Economics, refers to the extent to which the back-up reinforcers are exclusively available through the system of reinforcement (i.e., **closed economy**) or are available through other contingencies (i.e., **open economy**).



*Attempt to identify and use reinforcers that are only available through interaction with the Treatment Contingency.*

Hursh, 1984

# Token Economy Mechanics



- **Token Production Schedule:** The schedule of reinforcement that determines when a token will be delivered.
- **Arrangement Options.** Set Token Production Schedule to any other reinforcement.

Fixed Schedule

Variable Schedule

Ratio Schedule

Interval Schedule

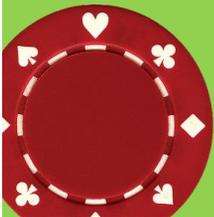
Differential S<sup>r</sup>  
Schedule

Complex S<sup>r</sup> Schedule

# Token Economy Mechanics

## Fixed Ratio

Token is delivered after a fixed number of target behaviors.



## Fixed Interval DRO

Token is delivered after interval elapses without target behavior.



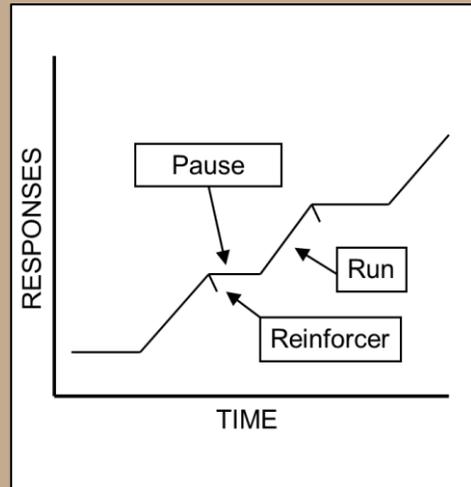
## Variable Interval

Token is delivered after first target behavior following variable interval

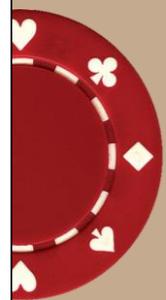
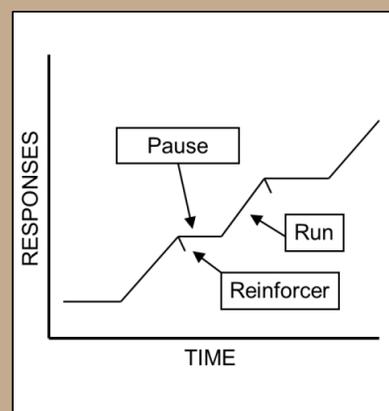
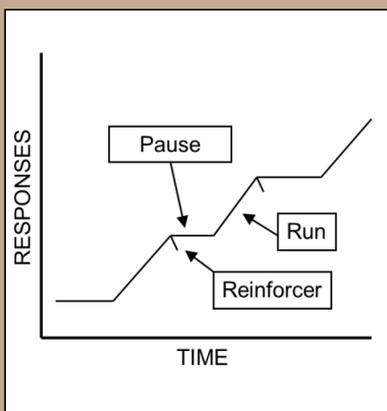


# Token Economy Mechanics

Response pattern under a *Fixed Ratio Schedule of Reinforcement*



# Token Economy Mechanics



# Token Economy Mechanics

- **Exchange Production Schedule:** The schedule of reinforcement that determines the conditions to exchange tokens for back-up reinforcers.

Response Contingent  
Exchange Production

Response Independent  
Exchange Production

Combined-Type Exchange  
Production



# Token Economy Mechanics

- **Response or Token Contingent Exchange Production:** The opportunity to exchange tokens requires the individual to meet some response requirement or obtain a pre-specified number of tokens.
  - For example, after Johnny gets all four tokens on his token board, he can have a 2 min break and play with a preferred toy.

Roger's Token Board

I am working for:



# Token Economy Mechanics

- **Response-Independent Exchange Production:** The opportunity to exchange tokens is based on the passage of time (Fixed Time or Variable Time) or at a pre-specified time of day; or at any time.
  - For example, every Tuesday at 2:30 pm, the students in Mr. Bill's class can trade in their tokens for activity time or prizes.

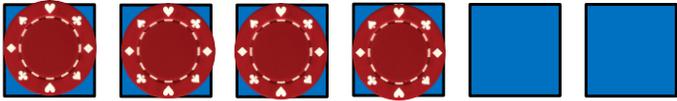


# The Token Economy

- **Combined-Type Exchange Production:** The opportunity to exchange tokens includes both time and response (or token) requirements; a conjunctive schedule of reinforcement.
  - Tina must collect 10 tokens before 3:00 pm in order to exchange the token for a reinforcer; the token economy resets each day.

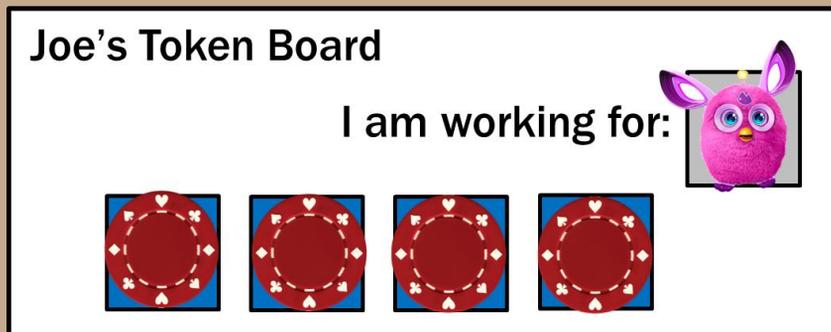
**Tina's Token Board**

I am working for: 




# Token Economy Mechanics

- **A Higher-Order Schedule:** Behavior reinforced according to the token production schedule is treated as a unitary response reinforced according to the exchange production schedule (Kelleher, 1966).



# Token Economy Mechanics

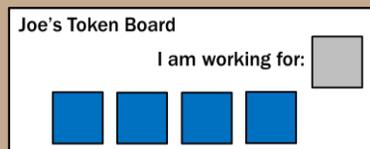
- **A Higher-Order Schedule:** Behavior reinforced according to the token production schedule is treated as a unitary response reinforced according to the exchange production schedule (Kelleher, 1966).

Token Production  
Schedule



**VR 3**  
First-Order Schedule

Exchange Production  
Schedule



**FR 4**  
Second-Order Schedule

# Token Economy Mechanics

- **Token Exchange Schedule:** The schedule of reinforcement that determines the ratio of exchange for back-up reinforcers; often expressed in terms of tokens.

Single-Ratio Exchange  
Schedule

Multiple-Ratio Exchange  
Schedules



# Token Economy Mechanics

- **Single-Ratio Exchange Production Schedule:** Access to the back-up reinforcers have a single cost, no cost stratification.
  - For example, to access free-time in Mrs. Jenkins class, students must have 15 tokens.



# Token Economy Mechanics

- Multiple-Ratio Exchange Production Schedule:** Access to the back-up reinforcers has multiple costs, typically in hierarchical order.
  - For example, students in Mr. Smith's class purchase items from a menu, some are cheap, others are expensive.




**LUNCH SPECIAL \$5.99**  
(All Served w. Roast Pork Fried Rice)  
11:00 am - 3:00 pm Only !!

L1. 青椒牛 **Pepper Beef w. Onion**  
L2. 蒜蓉雞片 **Moo Goo Gai Pan**  
L3. 甜酸雞或肉 **Sweet & Sour Chicken or Pork**




**APPETIZERS**

1. 春卷	Egg Roll or Veg. Egg Roll	1.10
2. 上海春卷	Fresh Spring Roll	1.25
3. 炸蝦	Shrimp Tempura (6)	4.25
4. 2 1 炸蝦	21 Shrimp	4.95
5. 牛肉串	Teriyaki Beef (5)	5.25
6. 雞肉串	Teriyaki Chicken (5)	4.50
7. 蟹肉	Crab Rangoon (5)	3.95
8. 炸雞	Chicken Wings (8)	4.95
10. 炸包	Fried Donuts	2.95




**SEAFOOD**

23. 芥蘭干貝	Scallops w. Broccoli	9.25
24. 芥蘭大蝦	Shrimp w. Broccoli	9.25

**VEGETABLE**

25. 素什錦	Mixed Vegetables	6.99
26. 什菜豆腐	Mixed Vegetable & Bean Curd in Brown Sauce	7.75
27. 魚香芥蘭	Broccoli in Garlic Sauce	7.75
28. 湖南什菜豆腐	Hunan Vegetable w. Tofu	7.75
29. 干扁四季豆	Sauteed String Bean	7.75

**Ko Cha**

**SPECIAL SERVED ALL DAY**

1. WING RIB PLATTERS	7.95
<small>4 pieces chicken wing, 2 beef teriyaki, egg roll, and pork fried rice.</small>	
2. CHICKEN & SHRIMP PLATE	7.45
<small>10 pieces fried shrimp, 4 chicken wings and meat pork fried rice.</small>	
3. TERIYAKI BEEF ON SKEWERS & WING DINNER	6.95
<small>2 pieces of chicken wings, shrimp fried rice or pork fried rice.</small>	
4. CHICKEN WING & SHRIMP FRIED RICE	6.99
<small>8 pieces of chicken wings, shrimp fried rice or pork fried rice.</small>	
5. CHICKEN WING W. FRENCH FRIES	5.99
<small>8 pieces of chicken wings w. french fries.</small>	
6. TERIYAKI CHICKEN & SHRIMP FRIED RICE	6.45
<small>3 pieces teriyaki chicken &amp; shrimp fried rice.</small>	
7. FRIED 21 SHRIMP W. SHRIMP FRIED RICE OR PORK FRIED RICE	7.99

## Questions and Comments



# Building a Complete Token Economy



## Building a Token Economy

**Fixed Ratio Exchange Production Token Economy**

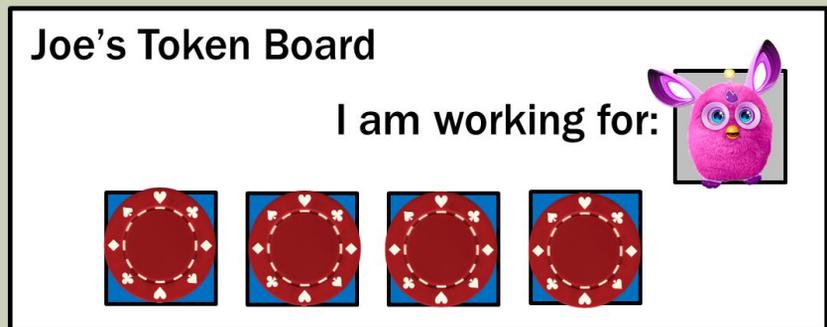
**Response Independent Exchange Production  
Token Economy**

**Token Economy Procedural Variations**

# Building a Token Economy

## Fixed Ratio Exchange Production Token Economy

- Definition:** Opportunity to exchange tokens is made contingent on obtaining a fixed number of tokens; often the *exchange production* and *token exchange schedules* are the same.



# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

## Fixed Ratio Exchange Production Token Economy

- Identify and Define Target Behaviors:** According to ABA conventions, operationally define all related target behaviors
  - Limited Number of Targets.** Including two or more target behaviors is possible but difficult in this token economy variation.
  - Avoid Non-Descript or Vague Definitions.** Unclear definitions set the occasion for inconsistency or treatment-integrity failures.

# Building a Token Economy



Components & Materials

Mechanics

Procedures

## Fixed Ratio Exchange Production Token Economy

- **Identify and Obtain Back-Up Reinforcers:** According to ABA conventions, identify stimuli to use as back-up reinforcers; a combination of informal and formal assessments of preference is best.
  - **Back-Up Reinforcer Array Size.** Aim for at least 4; more is better.
  - **Varied Reinforcer Type.** Include multiple types; activity, tangible, edible, etc..
  - **Choice of Back-Up Reinforcer.** Consider offering choice as the reinforcer.

# Building a Token Economy



Components & Materials

Mechanics

Procedures

## Fixed Ratio Exchange Production Token Economy

- **Identify and Obtain Tokens:** Visually salient, easy to produce and deliver, stimuli made of a durable material.
- **Create Token Board or Visual Representation:** This variation lends itself to simple visual representation; this factor is likely an important factor in the broad effectiveness of this token economy.

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

## Fixed Ratio Exchange Production Token Economy

- Initial Unit Cost of Back-Up Reinforcer:** Conduct assessment or use professional judgement to determine total “cost” of back-up reinforcer in terms of number of responses and/or passage of time.



Access to Back-Up Reinforcer equal absence of problem behavior for 20 min (time-based).

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

## Fixed Ratio Exchange Production Token Economy

- Set Initial Exchange Production:** Conduct assessment or use professional judgement to determine token exchange schedule; the total number of tokens necessary to initiate token exchange.



Based on what I know about Donnie, I think five tokens would work.

*Generally, the exchange production is between 4-10 tokens; however, this is an area with very little empirical research.*

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Fixed Ratio Exchange Production Token Economy**
  - **Determine the Initial Token Production Schedule:** For an Equal Requirement Token Production Schedule use the following formula...

Total Back-Up  
Reinforcer Unit Cost

A total 50 correct  
responses on  
work task.

Exchange Production  
Schedule

5 tokens.

Requirement Per  
Token

10 correct  
responses per  
token.

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Fixed Ratio Exchange Production Token Economy**
  - **Condition the Token to Function as Reinforcer:** Most tokens start as neutral stimuli and must be first conditioned...

Rule Statements

Pairing Procedures

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Fixed Ratio Exchange Production Token Economy**
- **Condition the Token to Function as Reinforcer:** Most tokens start as neutral stimuli and must be first conditioned...

Rule Statements

Pairing Procedures

A verbal description of the contingency that includes references to each component of the token economy mechanics.

*When you get 10 correct problems, I will give you a token. When you get 5 tokens you can trade your tokens for cool activities!*

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Fixed Ratio Exchange Production Token Economy**
- **Condition the Token to Function as Reinforcer:** Most tokens start as neutral stimuli and must be first conditioned...

Rule Statements

Pairing Procedures

What little research has been conducted suggested stimulus-response pairing...  
(AKA response required pairing)

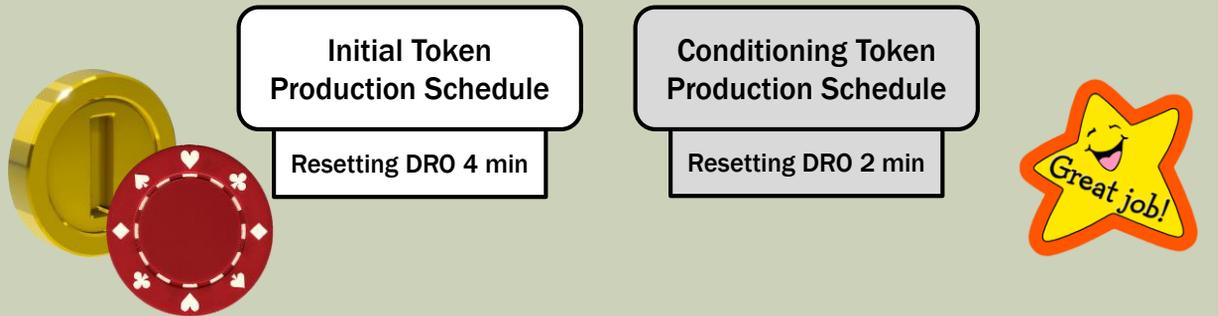
(Helton & Ivy, 2016; Dozier et al., 2014)

# Building a Token Economy



## Token Conditioning: Stimulus-Response Pairing Procedure.

- Description.** Conduct multiple token conditioning sessions, across days, in which tokens are made contingent on high-probability behavior at a token production less than initial token production; tokens are exchanged for back-up reinforcers according to exchange production or reduced exchange production.



# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

## Fixed Ratio Exchange Production Token Economy

- Define Boundaries of Reinforcer Access:** Determine the amount of time or number of stimuli available during back-up reinforcer conditions.

## Questions and Comments



**CAUTION!**



The Response Independent Exchange Production Token Economy can be exceptionally complex and difficult to maintain.

In short, do your homework before attempting to develop this type of token economy.

# Building a Token Economy

## Response Independent Exchange Production Token Economy

- Definition:** Opportunity to exchange tokens is noncontingent on the token producing behavior, rather based on passage of time; often the token economy includes multiple *token production* and *token exchange schedules*.



# Building a Token Economy



**Components & Materials**

**Mechanics**

**Procedures**

## Response Independent Exchange Production Token Economy

- Identify and Define Target Behaviors:** Same as before; define target behavior(s) according to ABA conventions.
  - Multiple Target Behaviors.** This token economy arrangement is well-suited to multiple, concurrent, target behaviors; targets for increase and/or decrease.
  - Limited by Resource.** The only hard limitation on the number of behaviors targeted is that based on resource (e.g., staff skill).

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Response Independent Exchange Production Token Economy**
  - **Identify and Obtain Back-Up Reinforcers:** Same as before; identify back-up reinforcers according to ABA conventions and obtain items.
    - **Large Back-Up Reinforcer Array.** Generally, include 8 or more back-up reinforcers across a range of preferences (low & high).
    - **Varied Reinforcer Type.** Include multiple types; activity, tangible, edible, etc..

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Response Independent Exchange Production Token Economy**
  - **Identify and Obtain Tokens:** Visually salient, easy to produce and deliver, stimuli made of a durable material, and inexpensive – you will need MANY tokens.
  - **Identify and Obtain Token Receptacle:** Determine how and where tokens will be stored; this could be with the individual or a central location.

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Response Independent Exchange Production Token Economy**
  - **Determine Initial Token Production Schedule(s):** For each target behavior, identify token production schedule of reinforcement; layering schedules of reinforcement can produce powerful contingencies.



Academic  
Engagement

M-DRA 5 min

&

Raising Hand

VR 5



# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Response Independent Exchange Production Token Economy**
  - **Determine Initial Exchange Opportunities:** Using professional judgement, set times throughout the day, week, and/or month to exchange tokens for back-up reinforcers.



In Mrs. Ray classroom, students can exchange tokens 3x times per day – spread evenly throughout the school day.

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Response Independent Exchange Production Token Economy**
  - **Determine the Initial Token Exchange Schedule:** Each back-up reinforcer should be associated with a cost, expressed in terms of tokens; the cost can be arranged in hierarchical order.



T-Max

The total number of tokens available per unit of time.

# Building a Token Economy



T-Max

25 tokens per hour



- For example....

Academic  
Engagement

M-DRA 5 min

20 tokens per hour.

~ 5 tokens per hour.

Raising Hand

VR 5

# Building a Token Economy



**Most Preferred Item**  
≥90% of T-Max

IPad Games

Ball Game

**Mod. Preferred Item**  
89%-79% of T-Max

Board Game

Cooking Set

**Least Preferred Item**  
≤78% of T-Max

Reading Time

Coloring Sheet

- Use T-Max to determine token exchange schedule or cost of back-up reinforcers.

- Consider first setting upper and lower limits; what is the cut off for no back-up reinforcer what is the max?

- T-Max = 500% or above in some situations.

# Building a Token Economy



**Components &  
Materials**

**Mechanics**

**Procedures**

## Response Independent Exchange Production Token Economy

- Token Conditioning:** Same as before; however, verbal conditioning is often appropriate when using this type of token economy.

- Define Boundaries of Reinforcer Access:** Same as before; however, it may be necessary to adjust amount of access or time based on back-up reinforcer.

# Building a Token Economy



Components &  
Materials

Mechanics

Procedures

- **Response Independent Exchange Production Token Economy**
  - **Forced Spending or Saving:** During token exchange opportunities can must individuals spend all of the tokens accrued (basic-economy) or is there a choice to save tokens (complex-economy)?

*An economy with opportunity to **save** tokens will require a larger number of back-up reinforcers, with costs exceeding T-Max.*



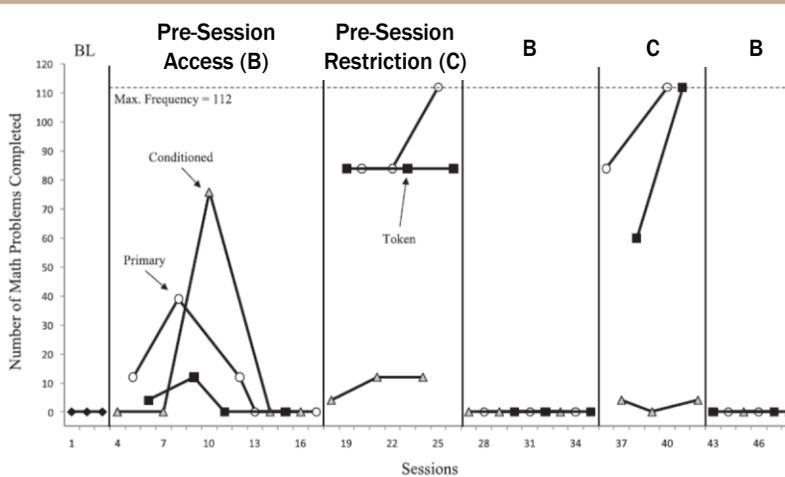
## Questions and Comments



# Maintaining a Token Economy



# Maintaining a Token Economy



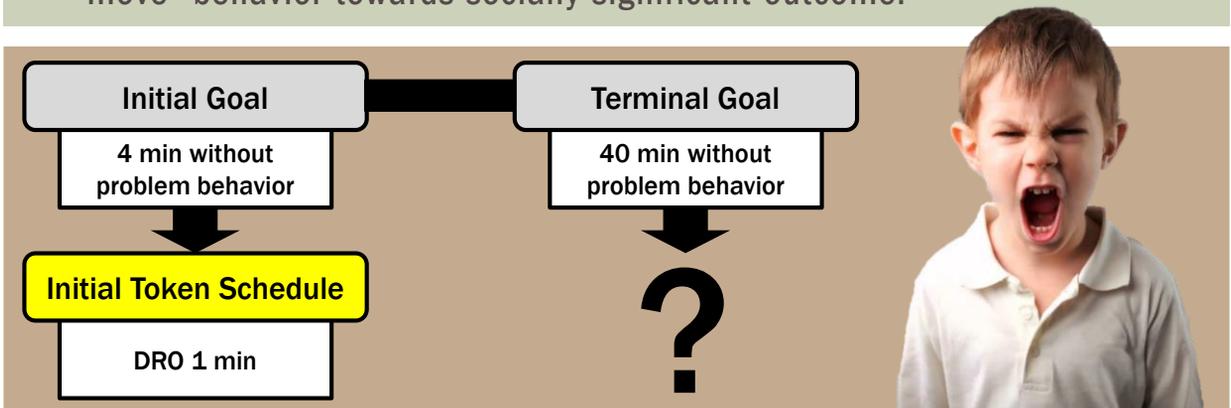
# Maintaining a Token Economy

**Frequently update, refresh and rotate back-up reinforcers.**

**When back-up reinforcers go “bad” so does the token economy...**

# Maintaining a Token Economy

- **Regularly Adjust Schedules of Reinforcement.** Like any schedule of reinforcement, those involved in a token economy should be adjusted to “move” behavior towards socially significant outcome.



# Maintaining a Token Economy

- **Move Towards Natural Contingencies.** Adjust the mechanics and procedures of the token economy, shifting from contrived or intrusive contingencies; towards natural contingences of reinforcement.



# Maintaining a Token Economy

- **Keep Your Finger on the Pulse.** The “health” of the token economy should be regularly assessed; evaluate percent of token earned, treatment integrity, allocation of tokens during exchange...



# Considerations and Variations



## *Creating and Maintaining a Token Economy* Current Research and Best Practice



***Thank you***

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