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Perceptions of students with learning disabilities participating in a classroom-based token economy

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**Perceptions of Students with Learning Disabilities Participating in a
Classroom-Based Token Economy**

Action Thesis Submitted in Partial Fulfillment of the Requirements For the Degree of
Master of Arts in Education

The College of Professional Studies
School of Education

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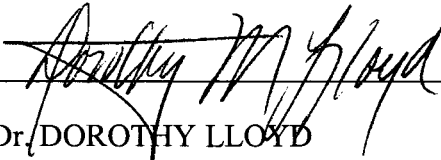
Action Thesis Signature Page

Perceptions of Students with Learning Disabilities Participating in a
Classroom-Based Token Economy System

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Abstract

This study investigated the perceptions of students with learning disabilities participating in a classroom-based token economy. During participation in the token economy an interview with a series of questions examining the student's perceptions of the social validity of the token economy was conducted. The results indicated that students were generally positive, and expressed relatively minor concerns about the token economy. Issues related to the students' perceptions regarding the social validity of the token economy system are discussed.

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Chapter 1: Statement and Purpose

Introduction

The token economy has been utilized and researched for more than 60 years. Research demonstrates that token economies have been used by professionals in many different environments to illicit change in behaviors (Cooper, Heron, Heward 2007). A common form of research-based classroom management implemented by educators, the token economy has been used primarily to reduce undesirable classroom behavior. Token economies have been widely researched in instructional settings as a means of using conditioned reinforces to reduce specific problem behaviors (Wasserman and Vogrin, 1979).

Token economies include the use of assigning tokens or a value system to students specific to behaviors performed by students. Numerous students in special education exhibit behaviors that often negatively affect their classroom environment. Many special education teachers implement interventions in order to achieve or extinguish specific behaviors. The educator is responsible for implementing a specific form of classroom management in their setting. The purpose of this study is to examine the perceptions of students following their participation in a token economy.

Background

An overwhelming amount of referrals and diagnoses place students with a range of disabilities in special day classes. Presently, numerous educators in special education are called upon to choose interventions for students diagnosed with specific disabilities. As professionals balancing a large caseload of students with different disabilities, it is important to provide an intervention that is appropriate. While numerous tools exist to

evaluate interventions, one aspect in need of evaluation would be the students' own perceptions following their participation.

Statement and Purpose

The goal of this study is to assess Special Education student perceptions following participation in a research-based strategy utilizing a token economy. The action plan will consist of implementing a commonly used intervention known as a token economy. Shortly following implementation of the token economy, an interview complete with a series of questions examining the student's perceptions of the intervention and perceptions of their behavior during the intervention, will be completed. For that purpose, collecting data on the students' perceptions will address their possible feelings regarding the token economy and their behavior. The perceptions of Special Education students on a commonly used intervention will aid in the development of future interventions regarding token economies in Special Education classrooms.

Personal experience

The following study is of significant value to me as a special education instructor for the past six years. As an instructor, I started working in a private school with students with severe emotional disturbance between the ages of 7 and 22. I was trained on the school's founding principles of behavior analysis, and worked within the school's established system of a token economy designed to change behaviors.

Later I accepted a position as an instructor on a public school campus. I was left to manage the behavior of my own classroom. Over the past three years I have chosen different interventions that I thought would change specific behaviors. Reflecting back on my use of common forms of classroom management has led me to question the students'

perceptions following participation with a token economy.

Research question

As a working professional in Special education, classroom management is a vital component necessary to effectively serve students. As a means to evaluate a common form of classroom management specifically the token economy, the following question will be asked: What are Special Education student perceptions following participation in a research-based strategy utilizing a token economy?

Definition of key terms

Token Economy – Is defined as a system of behavior modification made up of three key components: (a) a set list of specific behaviors: (b) tokens that students receive for demonstrating specific behaviors: (c) a list of reinforcers such as tangible items, activities, or privileges. Students trade the tokens to receive the reinforcers (Cooper, Heron, and Heward 2007)

Backup Reinforcers – Items, activities, or privileges received when students exchange tokens.

Special Day Class – A classroom on a public school campus where students with specific disabilities receive 100% of their academic instruction.

Individual Contingency – Students receive a token and access to reinforcers based on their individual behavior.

Social Validity – Refers to opinions relating to the social significance of intervention programs.

Chapter 2: Literature Review

Literature Review:

Educators' implementation of a token economy may reduce disruptive classroom behaviors such as lack of motivation, talking during academic tasks, not following teacher directions, not maintaining appropriate personal space, and leaving the academic setting (Wasserman and Vogrin, 1979). Disruptive classroom behavior can limit the amount of time students spend on task, in addition to limiting the time on task of their peers, thus potentially negatively impacting the learning of all students (Wasserman and Vogrin, 1979)

Wasserman and Vogrin (1979) reported that the positive effects of token economies on specific problem behaviors in elementary schools have been widely researched. Token economies are a common method of using positive reinforcement to reduce undesired behavior (Cooper, Heron & Heward, 2007). This procedure involves the delivery of a neutral item, or token, contingent on a student's display of desirable behavior. The students then exchange the tokens for backup reinforcers once a specified criterion has been reached, thus eventually conditioning the tokens as reinforcers themselves (Cooper et al., 2007). Initially the behaviors that will be reinforced are targeted. Then a standard means of exchange is decided on. Finally backup reinforcers are made available to students at specified times, and "purchased" based on the identified exchange rate of tokens to backup reinforcers (Cooper et al., 2007).

The effects of token economies on student behavior in the classroom have long been studied (Musser, Bray, Kehle, & Jenson 2001). Overall the research shows token economies to be an effective strategy for addressing problem behavior in the classroom

(Higgins, Williams, & Mclaughlin, 2001), including defiance (Carton, & Schweitzer, 1996). However, some educators have characterized certain reinforcement systems, such as the token economy, as extrinsic motivators, and thus not effective for promoting long-term behavior change, a theory known as the over justification hypothesis (Kohn, 1999). The over justification hypothesis has been described as follows, “if a person who is already performing an activity and receiving no extrinsic reward for that performance, then begins to be rewarded for performing the activity, his/her intrinsic motivation to perform the activity will be detrimentally affected (Akin-Little & Little, 2004, p. 188).” The hypothesis emphasizes the loss of intrinsic incentive as a factor in a decline of performance (Akin-Little & Little, 2004). Akin-Little and Little (2004) conducted a study designed to research any detrimental side effects accompanied with a program utilizing extrinsic incentives. Specifically the study focused on a token economy and the effects on the rule following behavior of 17 students without disabilities in a third grade class (Akin-Little & Little, 2004). The authors reported that the over justification effect was not maintained during the token economy. The participants maintained nearly the same level of rule during and following the study. Therefore although they claimed that the participants’ intrinsic motivation was negatively affected by the token economy, the data actually indicated that the students’ high level of rule following before the study was either improved or maintained during the implementation of the token economy (Akin-Little & Little, 2004). The over justification hypothesis is explained by researchers as a disregard an individual feels when being rewarded for a behavior previously achieved. Intrinsic motivation is hypothesized to be changed as the individual receives a reward and is now motivated by that reward and no longer by the interest in the activity. The

extrinsic reward, as suggested in the over justification hypothesis, causes the individual to transfer their internal interest and change to the perception desired by the outside reward (Kohn, 1999). Many researchers have heavily criticized the theoretical view that the use of reinforcement hampers student motivation, based on the lack of evidence supporting this claim. One common criticism of the over justification hypothesis is that it refers to the use of tangible reinforcement strategies for behaviors that students are already displaying at a high level (Akin-Little & Little, 2004) However, in research and in practice, reinforcement strategies, including the token economy, are implemented when student classroom behavior is well below an optimal level (Cooper et al., 2007) Therefore, the tangible reinforcement strategies such as tokens and back up reinforcers are delivered to increase relatively new or underutilized classroom behaviors (O'Leary, Becker, Evans & Sausages, 1969) Many token economies also include a systematic procedure for fading the frequency with which tangible reinforcers are delivered, while simultaneously increasing the delivery of naturally available reinforcers such as teacher praise (Cooper et al., 2007).

In fact, many empirical studies have shown significant improvements in student behavior as a result of teachers' use of token economies (Higgins, Williams & McLaughlin, 2001). For example, token economies have been shown to be successful in general education classroom settings (McLaughlin & Malaby, 1972). McLaughlin and Malaby (1972) investigated the effectiveness of a token economy that first focused on giving tokens for finishing assigned work in all academic areas over a one-year period. The outcome revealed an increase to a near 100% completion rate for finishing the assigned work. Subsequently the token economy was adjusted to focus on giving tokens

for quiet behavior as well as fading access to back up reinforcers to only every 4 days. The study shows that quiet behavior increased while finishing assigned work decreased. Again the researchers reinitiated assigning tokens for participants completing their assignments. A reinitiation revealed an increase of participants completing assigned work (McLaughlin & Malaby, 1972).

Additionally, research has validated the effectiveness of token economies in special education settings (Higgins, Williams & McLaughlin, 2001). For example, Wasserman and Vogrin (1979) report that a token economy implemented in a class for students with learning disabilities and emotional disturbance resulted in an increase in desirable classroom behavior, such as staying seated and speaking out. While undesirable behaviors were observed to persist, this may have been due to the intermittent delivery of tokens in that tokens may not have been delivered immediately after the targeted behavior was achieved (Cooper, Heron, & Heward, 2007). Further research has shown token economies to be effective in special education classrooms for decreasing problem behaviors such as compliance to a teacher's direction, physical aggression (Musser, Bray, Kehle & Jenson, 2001) and verbal aggression (Higgins, Williams, & McLaughlin, 2001). These strategies have also been shown to be effective in classrooms serving students with serious emotional disturbance (Musser, Bray, Kehle & Jenson, 2001), specific learning disabilities (Anderson & Katsiyannis, 1997) and mental retardation (Zimmerman, Zimmerman & Russel, 1969).

Token economies have been implemented in various ways making use of differing forms of group contingencies. Kehle, Bray, Theodore, Jenson, and Clark (2000) conducted a review of the literature on variations of the token economy that were

designed to address disruptive behavior in both general and special education classrooms. Specifically, Kehle et al. (2000) reviewed studies utilizing one or more of the three primary forms of the group contingency. The first of these is the independent group contingency, which consists of each student earning reinforcement for their own performance, independent from that of the rest of the class (Cooper et al. 2007). Dependent group contingencies, on the other hand, are characterized as systems where students who demonstrate the targeted behavior will allow the whole group access to the reinforcer (Gresham, 1993). Lastly, interdependent group contingencies are a condition requiring all participants to meet the specific targeted behaviors individually and as whole before they can have access to reinforcers (Skinner, Cashwell, & Skinner, 2000). The review by Kehle et al. (2000) demonstrated the effectiveness of all three of the group contingencies in reducing disruptive classroom behaviors. There was some indication of enhanced results for the interdependent and dependent group contingencies, however, studies directly comparing the three group contingencies to one another were limited (Kehle et al. 2000).

The process of selecting a form of classroom management for a special education classroom requires knowledge of research regarding outcomes of interventions beyond just changes in rates of behavior. Today many researchers examine the outcomes of interventions specific to the social validity regarding the intervention. Social validity is an assessment of the degree to which those involved with the interventions perceives the interventions to be effective and acceptable (Wolf, 1978). Research shows that questionnaires have been the representative measure to specifically gauge the suitability of an intervention (Finn & Sladeczek, 2001).

The importance of social validity is at the forefront of thought when choosing an intervention (Finn & Sladeczek, 2001). More specifically a component of social validity is the importance of participants, family members, and professionals in valuing the program and the outcomes of the intervention (Risley, 2005). The components that today define social validity have evolved overtime. However the core of social validity has remained consistent. This was established in the research developed by Wolf (1978) looking at the perceptions of society on a treatment's appropriateness to the problem and it's appropriateness for the participant (Wolf, 1978). One social validity factor that appears to influence the likelihood of an intervention being chosen is the effective implementation of the intervention in the past (Finn & Sladeczek, 2001). This knowledge of effectiveness increases how people feel about the intervention before they enter into it. Additionally research demonstrates that participants' understanding of how the intervention works prior to engagement also positively impacts the social validity of the intervention. (Finn & Sladeczek, 2001).

Social Validity is a measurement of the value of an intervention for the individual and other people involved in the intervention (Reimers, Wachter, & Koeppel, 1987) Through the process of assessing social validity, the intervention is more likely to be implemented and thus result in improved outcomes (Finn & Sladeczek, 2001). Therefore evaluating the perceptions of the participants regarding the acceptability of an intervention can lead to clarification regarding the social validity of the intervention (Witt & Elliot, 1985).

A fair amount of research exists examining the social validity of various behavioral interventions by examining the perceptions of teachers, parents, and other

professionals (Kazdin, 1981), however there remains a lack of direct knowledge of the perceptions of students with disabilities in regards to many behavioral interventions, including the token economy.

While the research clearly supports the effectiveness of implementing a token economy to improve student behavior in the classroom (Musser, Bray, Kehle, & Jenson, 2001), there is little research available analyzing the social validity of such an approach from the perspective of the students themselves. Therefore, this study will attempt to analyze the social validity of an independent group contingency token economy system by evaluating the perceptions of the students participating in this intervention in a special education classroom.

Chapter 3: Methodology and Procedures

Methods and Procedures

Introduction

The goal of this study is to assess Special Education student perceptions following participation in a research-based strategy utilizing a token economy. To thoroughly study this question, a teacher action research qualitative design utilizing ethnographic methods was used. This methodology involved gathering information with a series of questions examining the students' perceptions of the intervention and perceptions of their behavior during the intervention. For that purpose, collecting data on the students' perceptions of the token economy sought to clarify the social validity of this common classroom management strategy. The perceptions of Special Education students on a commonly used intervention could aid in the development of future interventions regarding token economies in my classroom settings.

Setting and Participants

The study took place in a special day class located in a coastal valley city of California. This specific special day class is designed for 3rd and 4th grade students diagnosed with specific learning disabilities, speech and language disabilities, and mental retardation. All of the research was conducted in this setting on the campus of a kindergarten through 6th grade public school. The study focused on 7 special education students of Hispanic descent ranging in age from 9 to 10 years old in a special day class. Participants were selected based on their membership in the same classroom setting. The setting allowed the target group to remain in this specific class for 100% of their day.

The participants consisted of 6 boys and 1 girl. They come from a low-income socioeconomic level. Participants displayed disruptive classroom behavior consisting of leaving the academic area, talking without raising their hand, yelling, teasing, and refusing to work.

Table 1

Participants' information

Name	Age	Primary Lang.	*Ell Levels	Disability
Adriano	10	Spanish	EI	Speech and language
Alex	10	English	EI	Specific learning disability
Desmond	10	Spanish	EI	Specific learning disability
Emily	10	Spanish	Beginning	Mental retardation
Jessie	9	Spanish	Beginning	Specific learning disability
Karl	10	Spanish	EI	Specific learning disability
Roy	10	Spanish	Beginning	Specific learning disability

* English Language Learner *Beginner *EI = Early intermediate

Procedures

The special education teacher as well as the classroom paraprofessional provided tokens to the participants on a daily basis. Students received a square token with a picture of cartoon characters when they exhibited behaviors including: completing their work,

staying on task, being friendly to peers, raising their hands, staying in their seats, and accepting more work. The teachers attached a token to the token board on the student's desk. Students collected the tokens until they reached 10. When the students collected 10 tokens the teacher removed them and replaced the tokens with a red token signifying a value of 10. When the students transitioned to different academic areas they took their token boards with them.

On average students received 25 tokens a day. The maximum number of tokens any student would receive in a day was 30. The minimum number of tokens any student would receive in a day was 10. At specific times during the day, (20 minutes before lunch at 11:50 am and 20 minutes before school ended at 2:00 pm), students were allowed to purchase back up reinforcers. At this time students could choose to purchase an item(s) or continue to save their tokens for items that cost more. The backup reinforcers and their associated costs were as follows: A piece of drawing paper was available for 3 tokens, a children's book for 5 tokens, an eraser for 5 tokens, a pencil, marker, pen, or a box of chalk each for 10 tokens, ten minutes of choice time and access to classroom games and toys for 20 tokens. The prize box consisting of toys was worth 30 tokens for one toy; 10 minutes on the computer on teacher designated internet sites was worth 30 tokens; 30 minutes at lunch on the computer is 70 tokens, and a movie at lunch was available for 140 tokens (students were allowed to combine their tokens with up to 3 other students and participate in the identified activities as a group).

One on one individual interviews regarding the students' perceptions was conducted two weeks into the implementation of the intervention described above. The interviews were conducted in order to gain insight into the students' perceptions of the

token economy, and were analyzed by coding the comments and sorting them into themes for further analysis. Participant responses to the interview questions were separated. All of the responses were then placed together under the questions and separated by identity. During the coding process, patterns were examined on the students' perceptions through the transcription of interviews regarding the intervention. During the process of analysis data was collected to help raise key questions around the themes of student perceptions of a common classroom management strategy. Based upon information found in the literature, some themes that were anticipated to arise from the students' responses related to the social significance regarding the importance of doing well in school as well as any change in the student's behaviors following the implementation of handing out tokens. Another theme that was anticipated to arise related to the social appropriateness of earning tokens, what they liked to get with the tokens, how they felt when they received a token, and how they felt when someone else received a token. Another anticipated theme was the social importance regarding what the students valued and whether or not they valued receiving the tokens. The two primary data collection methods utilized was student interviews and the reflective journal kept by the interventionist. The interviews consisted of the following questions, among others (See Appendix A for the entire list of interview questions): Do you think that it is important to do well in school? Can you tell me how you earned the tokens? How did you feel when you earned a token? How did you feel when someone else earned a token? What did you like about earning the tokens? What did you not like about earning the tokens? Interviews were conducted individually with the students two weeks after the intervention was initiated. All 7 students were English Language Learners and were in the beginning to early intermediate phases of English proficiency. While the interviews were

conducted in English, following the completion of the interview the students' responses were examined. The students who gave only one word responses or who responded with answers that did not match the questions were interviewed again, this time with the assistance of a Spanish/English translator. These students had the questions translated to them and they could choose to answer in Spanish. All of the interview questions consisted of common vocabulary used in class on a daily basis.

Throughout the study, the interventionist kept a written journal in which specific reflections, thoughts and experiences were recorded in relation to the, a) the implementation of the token economy, b) the students' reactions to this intervention and, c) the student information provided during the interviews. Journal entries were kept on a daily basis noting the actions, comments, and discussions of the participants as well as the interventionists own thoughts and experiences throughout the study. The written journal was utilized in order to corroborate, contrast and further clarify information obtained directly from the student interviews.

Chapter 4: Results and Discussion

Results and Discussion:

The intention of this study was to investigate the perceptions of Special Education students following participation in a research-based strategy utilizing a token economy. To assess this, a qualitative ethnographic methodology was utilized consisting of interviews with the students and a reflective journal kept by the investigator.

In the process of collecting and analyzing the data, specific themes arose regarding the students' perceptions. For example it was evident that students thought that it was important to do well in school, and that they believed that earning tokens helped them to do better in school. The findings also showed that students believed earning tokens helped them to follow directions better than before. Data also revealed that students earned tokens by following directions, paying attention, and being on task. Students liked the process of buying items and students felt good when they earned a token. It was also evident that some students felt good or happy and that some felt bad when other students earned a token. Students liked to earn tokens but did not like when they were unable to earn them or unable to purchase a particular item. Students liked to cash the tokens in, however some students did not like to then have to start to save again. The themes identified in this study relate to the social validity of the token economy strategy implemented in the students' classroom, including its social significance, appropriateness and importance. These themes, and the evidence supporting them are discussed in detail in the following sections.

The Social Significance of the Token Economy

The first theme identified in this study relates to the social significance of the study. The social significance of an intervention has been defined as specific behavioral goals

considered to be important in relation to what society desires (Wolf, 1978). In the study participants reported that it was important to do well in school. When asked if it was important to do well in school, one participant (Emily) responded, “yes, so we can learn and make parents and teachers happy.” Another participant (Jessie) answered, “Yes, because it makes my mom happy and she rewards me.” Only one participant revealed the importance of doing well in school solely for themselves. Two participants revealed that it was important to do well in school so their parents could reward them. In this study, participants reported that earning tokens helped them do better in school. Participants felt that earning tokens helped them to follow directions, learn more, and be happy. One participant (Roy) reported that he did, “better, because it’s good to buy stuff. Better, because it makes me listen to the teachers and makes me want to do my work.” Notes from the reflective journal corroborate this finding that a majority of the students did better when the tokens were first introduced. According to teacher observation, the first three days of the intervention almost completely eliminated the participants’ disruptive behaviors of leaving the academic area, talking without raising their hand, and off task behavior.

In this study, participants reported that earning tokens helped them follow directions better than before. When asked if earning tokens helped him to follow directions better than before, one participant (Karl) reported, “Better, I focusing [*sic*] more.” One participant (Roy) specifically stated that, “I pay more attention and it keeps me from teasing people.” A decrease in teasing during the introduction of the intervention was noted in the reflective journal. Another student (Desmond) reported, “Doing good on work, I felt good inside of me.” A majority of participants reported that the tokens did not cause them to do anything worse than before. One participant (Roy) reported that, “Sometimes the

token [*sic*] bother me and I worry about who has more token [*sic*] than me.” In this study it was observed and noted in the reflective journal that as the intervention went on some participants became increasingly concerned about how many tokens they had in comparison to others. Their concern, on occasion, would lead to frustration and declarations that they wanted to quit earning tokens.

The Social Appropriateness of the Token Economy

A second major theme identified in this study was the social appropriateness of the token economy. According to Wolf (1978), the social appropriateness of an intervention can be defined as the extent to which the participants, caregivers and other consumers consider the treatment procedures acceptable. In this study participants revealed that they earned tokens by paying attention, saying kind words, working quietly, following directions, and being considerate. For example, one participant Agustin responded to this question by saying, “By being on task and being good, paying attention, doing what the teacher tells you to do.” Another student Emily answered, “Follow directions behaving and not touching [the teacher’s] stuff.” The reflective journal provided the further clarification that before the implementation of tokens the participant would touch and sometimes hide the teacher’s papers, markers, and books throughout the day. After the implementation of the tokens the participant decreased the amount of times she would touch the teacher’s belongings to one or two times per day. Furthermore she would touch teacher belongings when she first sat down but would immediately stop once class started and adults began handing out tokens. When participants were asked what they could do with the tokens they reported that they could buy toys, books, drawing paper, computer time, choice time, pencils, books, and time to watch a movie. A majority of participants reported that they

most liked to watch movies at lunch with their friends. One participant (Desmond) reported that he most liked to buy “computer time.” However, the reflective journal revealed that this participant never actually used his tokens to purchase computer time. Another participant (Adriano) reported that he liked to buy, “movies with friends at lunch.” According to the reflective journal this participant only purchased a movie with friends one time. His primary purchase was choice time, which was selected as soon as he had earned enough tokens for this activity. Another participant (Emily) reported that she liked to buy, “Books, toys, erasers and pencils.” Teacher observations that were recorded in the reflective journal indicated that this participant purchased low cost items and never saved more than forty tokens prior to cashing them in for a purchase. However a majority of the students saved tokens across multiple days to be exchanged for higher priced items.

In this study when asked if they felt good or bad when they earned tokens all of the students reported that they felt good. One participant (Roy) reported, “I feel good because teachers are happy that I’m good and I can earn thing [*sic*] I couldn’t earn before.” Another Agustin reported feeling, “Good, cause when I get token [*sic*] I feel like I want to get more so that I can be good.” Notes on teacher observations from the reflective journal also supported the notion that the participants felt good about earning tokens. In fact, some participants were observed talking about how they enjoyed seeing how many tokens they could save, rather than actually cashing them in. When participants were asked how they felt when others earned tokens, four reported feeling bad. Three participants reported feeling good for the other student. One participant (Desmond) reported feeling, “Bad, mad they got a token, because I didn’t get one, they were following directions.” Notes from the reflective journal indicate that a majority of participants appeared to interpret other students

earning a token as a signal that they themselves were not following directions. One participant (Emily) who reported feeling happy when others earned a token stated, “Happy because they are going to be able to spend their tokens. Kids who behave deserve tokens.”

The Social Importance of the Token Economy

Another theme that emerged related to the social importance of the token economy. The social importance of an intervention has been defined as a satisfaction with the whole intervention (Wolf, 1978). When asked what they liked about earning tokens some participants reported that they liked how they felt. Other participants reported that they liked being able to buy items. One participant (Jesse) reported, “I like that it feels good and fun.” In the reflective journal it was noted that this participant would save more tokens than other participants and spend them on larger items such as watching a movie. Another participant (Emily) reported, “I like that I get chance [*sic*] to buy toys at school and it helps me behave.” Information in the reflective journal indicated that this participant decreased inappropriate behavior during the intervention and valued counting and neatly displaying her tokens. A majority of the participants reported that they liked to cash in tokens. Participants reported liking buying items from the store. One participant (Jesse) reported, “I like that it feels like money and I get something I want in return.” Another participant (Roy) reported, “I like that it is like really buying stuff from the store.” It was observed that all but two participants valued cashing in their tokens to watch a movie at lunch with their friends. One of the most difficult aspects of implementing this token economy was providing items that the participants valued. Teacher reflections indicated a need to rely on volunteers to donate toys, books, and pencils in order to have a sufficient number and range of motivating tangible items in the store. It was noted that a majority of the students passed

on buying small priced items and were saving up for bigger priced items such as using the computer and watching a movie. Students reported that they did not value the items in the store reporting in the second week that the toys and books were old and boring. Students reported that many of the books were chapter books and too difficult to read. It was noted that books of high interest had already been bought in the first week. Toys were reported as being boring, as a majority of the students said they had the same toys at home. The students' parents donated the toys, therefore some of the toys were recycled toys previously owned by the students. When asked what they did not like about earning tokens, a majority of participants reported, "Nothing." However one participant (Roy) did elaborate by saying, "I just don't like not being able to earn them." After stating that there was nothing she didn't like about earning tokens another student (Emily) mentioned, "Except for when the boys have more tokens than me." Another student (Jesse) reported, "I just don't like it when I'm not earning tokens." As the intervention went on, comments in the reflective journal revealed that feelings of frustration existed among participants comparing their tokens to others. It was noted that students would accuse the adults of giving more tokens to a student and less to them. They would, at times become frustrated and remark that a student had ten tokens while they only had nine, and that it was unfair. During these incidents of frustration it was noted that two of the students on several occasions attempted to turn in their tokens and made comments that they no longer wanted to participate in the token economy. Other students were observed putting their heads down or refusing to work after indicating that they lacked tokens compared to their peers. It was noted on several occasions that these students had very recently used the tokens to purchase items. Frustration would often continue even after an adult would explain to the student that they

had chosen to spend their tokens, while other students had chosen to save. While a majority of participants reported that there was nothing that they did not like about cashing in the tokens, one participant (Jesse) reported, "I don't like to lose them and then have to earn them again." It was noted in the reflective journal that tokens were never taken away from the student. Rather the student would spend his tokens and then regret no longer having tokens with which to make purchases. Jesse was observed to consistently save the most tokens. He was observed taking long periods of time to decide what he should purchase and if it was worth spending the tokens. Another student (Roy) reported that he did not like, "Having to gather them up and then having to earn them again." Teacher observations summarized in the reflective journal revealed a level of frustration on the part of students when they did not have enough tokens to purchase choice time or watch a movie with friends. It was noted that this level of frustration existed specifically with these two items. One participant (Adriano) was observed becoming frustrated and crying on several occasions after being told he did not have enough tokens to purchase choice time. The following quote was recorded in reflective journal: " But I want to do choice with Agustin." As the intervention went on, observations from the reflective journal indicated that 5 of the 7 students saved their tokens for up to 2 days. It was also noted that there was a decision made by a group of five peers to save their tokens and pool them to earn watching a movie at lunch together. If one of the peers among this group of five considered buying a smaller priced item other than the movie, other peers would make comments advising him/her to save the tokens. In the reflective journal this was noted as a clear form of peer pressure that worked to stop the participant from purchasing the item. Some

participants were observed to change their minds after cashing in their tokens and would ask if they could return the item and receive their tokens back.

Overall, the students made comments that were favorable towards the social validity of the token economy, as indicated by each of the themes described above. Regarding the social significance issue, most of the students felt that they did better when they earned the tokens. Most of the students felt that earning tokens motivated them to think about and follow the directions of the class, while only one expressed concerns with other students having more tokens than him. Similarly, when it came to the theme of social appropriateness, all of the students understood how they earned the tokens and what they could do with them. All of the students reported feeling good when they earned tokens. Three of the students felt good or happy even when others earned a token. On the other hand, four students expressed feeling bad when others earned a token. Two students had concerns with feeling that they must have not been following the directions at the time, while the two other students felt like this just meant that they had fewer tokens. Finally, students expressed positive comments regarding the social importance of the token economy. For example, the majority of students felt good about the process of earning tokens and cashing them in although one student expressed concerns with the inability to purchase a specific desirable item after previously exchanging his tokens for a less desirable item. Lastly a majority of the students reported that there wasn't anything about cashing in tokens that they did not like, while two students expressed concerns with having to start the process of earning and saving tokens all over again once they had spent their tokens.

Chapter 5: Summary

Summary:

Overall, the results of this study support the idea of the token economy as a socially valid classroom management strategy. The results of the interviews revealed mostly positive perceptions regarding the token economy. Students reported a connection between receiving tokens and doing better in school. Further, students reported that receiving the tokens caused them to think about following the directions. During the interviews, when asked if the tokens helped them do anything better, students indicated that they would consciously think about their behavior, work harder, follow the directions, remain on task, do better work and stop their teasing.

All of the students reported understanding how to earn the tokens. They reported a majority of the exact words and phrases the adults used to talk about the classroom rules. When asked how they felt when they earned a token, all of the participants reported feeling good. In this study most of the concerns expressed by the students came when they were asked how they felt when others received a token. Four of the students reported feeling bad. Specifically they indicated that this meant that they were either not following directions at the time or the other student had more tokens while they had fewer. This, however, does not indicate that a student was not following the directions rather that another student had demonstrated an act that resulted in the delivery of a token. A student may have had fewer tokens for many reasons, such as the fact that the adults handed out different amounts of tokens and that a student may have recently purchased an item when the others chose to save.

All of the students reported feeling good when they earned a token. A majority of students indicated feelings of happiness. All of the students enjoyed the process of

cashing in the tokens. In fact, all but one of the students would sometimes spend the entire designated store time deciding what to buy (e.g., up to twenty minutes). Students would often pick something and then, seconds later, decide that they didn't want it. On occasion this led to comments indicating that the items were undesirable. It is noted that the items were not always undesirable rather the students would often choose a book, puzzle, or a toy and then express that it was too difficult. Sometimes when the item was explained and or demonstrated to the students they would keep the item and indicate that they did like it.

Limitations

The small number of participants, the fact that the participants in the study were selected from only one classroom, and the short amount of time between the start of the intervention and the initiation of the interviews are all limitations to the study. As such, the results obtained may not generalize to other students participating in a token economy system. Furthermore, the results do not capture the perceptions of students who have participated in a token economy for a substantial period of time. Another limitation of this study was the use of the independent group contingency within the token economy, as opposed to either the dependent or interdependent group contingencies. Therefore, the obtained results may not apply to these types of group contingencies when used within a token economy. Since the purpose of the study was to analyze student perceptions regarding the social validity of a token economy system, direct quantitative data on student behavior change was not collected. Therefore it is impossible to determine the extent to which student perceptions correlate with the degree of behavior change. An

additional limitation in this study was that students appeared to have difficulty understanding the value of the two types of tokens. According to the literature, it is important that everyone involved understand the intervention (Kazkin, 1981). Specifically in this study the confusion related to the use of a red token to represent a value of ten. Most of the students never really understood if they were close in value to the items they wanted to purchase. The act of purchasing consisted of students asking numerous questions regarding whether or not they had enough tokens to purchase desired items. Another noted limitation was the expense involved in supplying the store with highly desired items. Since items were obtained for the store as a result of donations from volunteers and friends it was difficult to supply items that were adequately desirable to the students.

Research Implications

Literature reveals that a classroom based token economy can be an effective intervention to reduce specific problem behaviors, (Wasserman and Vogrin, 1979). Overall, students reported positive perceptions regarding the token economy. One reason was that students liked the idea of earning the items. However more of the process was about earning the tokens than actually cashing the tokens in. Although the store was open daily an appropriate amount of time, only a small portion of the day was set aside to cash in the tokens compared to the time spent earning the tokens. Students spent a lot of time talking about their tokens. Tokens had different cartoon characters on them, so they themselves may have been seen by the students as something to collect. A student would proudly indicate to his or her peers how many of a certain character he or she currently had. As the study went on students traded the tokens among each other in order to obtain

tokens with desirable cartoon characters. Therefore, for future reference, tokens without such interesting stimuli will be considered in order to maximize the motivation of students to exchange the tokens for backup reinforcers.

The interview responses support the student actions that were observed in class. Students were aware of the intervention on a daily basis. A reduction of undesirable behavior was noted in the beginning, specifically the first three days of the study. Additionally, for a majority of the students, a reduction of undesirable behavior remained during the entire observation period of the intervention. Many of the students valued earning the tokens and were observed demonstrating specific behaviors to receive them. If an adult would hand a token to a student and specifically state why they were receiving that token, one could observe many of the other students immediately demonstrating that behavior. A majority of the time, positive and/or good feelings was connected with earning the tokens.

Results of the study revealed this token economy to be a socially valid form of classroom management. The token economy developed a connection between the classroom's specific behavioral goals and paired them with an immediate reinforcer. A majority of the students talked more about the specific behavioral goals of the classroom. Students made comments indicating that the behavior they demonstrated deserved a token. All of the students valued the process of receiving the tokens. The evidence of their value was clearly visible, as all of the students would not start an activity until their token boards were set in front of them ready to receive tokens.

Teachers were able to give students prompts indicating the specific tasks or behavioral goals that would be paired with the distribution of tokens. With the token

economy teachers could inform the students that they would be handing out tokens for specific behaviors. A teacher was observed prompting students that she would hand out tokens to students who were following along with a group reading. Immediately the students' would point their fingers to the title in their reader. The study revealed an overall good or positive feeling that the students gained from receiving a token. On occasions all of the students would indicate feeling good by smiling or making a positive gesture when they received a token. While the students had difficulty understanding the exchange rate of the red tokens when purchasing items, they did express an understanding that they needed to earn ten tokens with the cartoon characters in order to get one red token. Students were consistently observed making positive comments indicating how many more they needed to get the red token.

On the other hand, the study revealed results that were unplanned. Maintaining the token economy was time consuming. Excluding the time spent obtaining back-up reinforcers, simply operating the store time in class required 180 minutes per week to maintain the intervention. While the number of opportunities for exchanging tokens may decrease over time, and while the improvements in student behavior may positively impact academic time, this is still a substantial commitment on the part of the classroom teacher. Therefore, future research should investigate the social validity of the token economy from the teacher's perspective. At the start of the intervention a procedure was designed allowing students to purchase items during specific times during the day. On occasion students spent upwards of twenty minutes deciding what item to buy. In the future, setting a timer with a specific amount of time to choose an item could be used to alleviate this. Furthermore, students who had chosen not to purchase an item would yell

across the room to other students advising them on what they should or shouldn't buy. This forced the teachers to redirect the students back on task. While the process called for those students who chose not to buy anything to continue working during store time it allowed other students to engage in choice time within six feet of each other. This close proximity led to distractions to the students who had not earned the choice time. It is clear that a specific area visible only to the child in the act of purchasing or enjoying an item would be more suitable. The study revealed negative emotions that did not exist before the token economy. The act of possessing tokens at times caused students to become upset when they perceived they were missing a token. This led to a majority of students immediately making accusations of theft. Other students indicated feelings of frustration when other students had more tokens than they did. Finally the study revealed a lack of understanding between the value of the tokens and the items that could be purchased. The values were selected with an assumption that some items could be earned quickly while others could take longer to earn. Furthermore, the numerical values of the items were set as an assumption of what the students would be able to understand. However a majority of the students appeared to not be able to grasp when they had enough tokens to purchase an item. During the study it was observed that students consistently required adult assistance in calculating whether or not they had sufficient tokens to purchase various items. Specifically, students would hand over their token boards and ask an adult to tell them what they could buy. In the future, lowering the numerical value and color-coding the items in the store could alleviate this problem. Instead of indicating numerical values on a menu, the menu could be colored and coded

into groups to indicate value. A student could save ten tokens and look at a menu that had all of the items worth ten in an area colored purple, for example.

In sum, it was found in this study that the participating students perceived the use of a classroom based token economy as a socially valid intervention. Participants found the intervention to meet the criteria of socially valid approaches in the areas of social significance, social appropriateness and social importance.

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Appendix A

Interview Questions Post a 2-Week Token Economy.

Social Significance

1. Do you think that it is important (good) to do well in school?

Why?

* Do you think earning tokens helped you do better or worse in school?

(Over justification hypothesis)

2. Do you think earning the tokens helped you follow directions better or worse than before?

* Did earning tokens help you to do anything else better than before? If so, what?

* Did earning tokens cause you to do anything worse than before? If so, What?

Social Appropriateness

3. Can you tell me how you earned tokens?

* What did you get tokens for? What did you have to do to get them?

4. Can you tell me what you could do with the tokens?

* What did you like to get the most?

- * How did you feel when you earned a token?

Did you feel good or bad? Why?

5. How did you feel when someone else earned a token?

Did you feel good or bad? Why?

Social Importance

6. What did you like about earning the tokens?

- * What did you like about cashing in the tokens?

- * What did you not like about earning tokens?

- * What did you not like about cashing in the tokens?