A Training Manual for the Implementation of a Positive Reinforcement Point-system in a Public School Classroom

by

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Abstract

A training manual for a whole class token economy was developed. The token economy is called the Positive Reinforcement Point System (PRPS) and was implemented in a behavioural classroom in the public school system. Literature that establishes empirical support for the use of staff training in the effective implementation of behavioural programs is presented and utilized as the rationale for the development of a training manual. An extensive literature search was completed. Articles demonstrating the efficacy of token economies in the education system and in psychiatric inpatient facilities are summarized, compared, and critiqued. The method section of the thesis includes an outline of the training manual and a description of the participants, client group, setting, and materials. A feedback questionnaire regarding aspects of the manual is discussed. Limitations of the manual, the challenges in developing the manual, challenges in using the manual, ethical issues, and future recommendations are presented in the discussion section. The training manual is included as an appendix in the thesis report.
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Chapter I: Introduction

Background

Behaviour management has been one of the most common challenges that teachers face today. Disruptive and inappropriate behaviour make it difficult to instruct classes as a whole. One of the most powerful behavioural interventions for improving school behaviour is the token economy (Kazdin & Bootzin, 1972). There is an abundance of literature that gives empirical support for the use of token economies within school settings. For example, O’Leary and Becker (1967) developed a token economy that significantly reduced the deviant behaviour in 17 grade four students.

Token economies in the classroom focus on the reinforcement of appropriate behaviours with tokens or points. Miltenberger (2004) stated, “The purpose of a token economy is to strengthen clients’ desirable behaviours that occur too infrequently and to decrease their undesirable behaviours in a structured treatment environment or educational setting” (p. 472). Occurrences of an appropriate behaviour are rewarded with a token, which are exchangeable at a later time for a more desirable secondary reinforcer. Contingency managers, the individuals who implement the program, can incorporate a response cost component, which is the removal of tokens contingent on the occurrence of inappropriate behaviours into the token economy. It is very important that the appropriate and inappropriate behaviours are clearly defined and that the reinforcement schedule is consistent in order to maximize treatment effects (Miltenberger, 2004).

Although the focus of this paper concerns the classroom environment, literature on token economies implemented outside the classroom has also been reviewed in order to demonstrate the applicability of the intervention. The results from research studies using token economies with psychiatric inpatients are consistent with the treatment outcomes from token economies used in school settings. For example, Galbraith (1972) implemented a token economy that incorporated a response cost and a de-admission component with 45 psychiatric inpatients. The study showed positive results in terms of increasing self-care behaviour.

Rationale

A major consideration when employing a token economy is how well it is being implemented by the contingency manager. Han and Weiss (2005) examined the importance of teacher training in the implementation of treatment programs. This study demonstrated that teacher training is a significant factor in the effective implementation of treatment programs in school settings. Based on this research, a training manual was developed to benefit teachers when employing whole-class token economies as it is a constant factor, especially for new staff.

Hypothesis/purpose

The purpose of the training manual was to provide detailed instructions to facilitate the implementation of a whole-class positive reinforcement point system in a classroom setting. A feedback evaluation form was included. The evaluation form
comprised of two components and focused on the user’s satisfaction with the manual. The first component was based on the readability and clarity of the manual. This included questions regarding the content of the manual, for example, the ease with which the manual is read and understood. The second component of the evaluation form focused on the implementation of the token economy. It included questions on the feasibility and applicability of the program. The evaluation sheet was in the form of a 5-point Likert scale, with 1 meaning “strongly disagree” and 5 meaning “strongly agree.” It was hypothesized that teachers would rate the Positive Reinforcement Point System favorably, especially in terms of feasibility and applicability. It was also hypothesized that the readability and clarity of the manual would also be rated favorably.

**Overview of Chapters**

Chapter two of the thesis includes a literature review. Three main areas of research are covered: the efficacy of token economies in the education system, the efficacy of token economies in psychiatric inpatient facilities, and the need for staff training for program implementation. Review articles and several empirical studies are discussed for each area of research.

Chapter three, the method section, comprises of three main topics. The first area includes a rationale for writing a treatment manual and a clear description of the evaluation component. The second section consists of a description of the proposed client group, the selection procedures, the target population, the setting for program implementation, and the materials required to implement the program. A clear outline of the treatment manual components is incorporated in the third section of this chapter.

The final chapter includes the discussion section of the thesis.
Chapter II- Literature Review

Efficacy of the Token Economy in Educational Settings

To obtain a general view of the literature on the use of token economies in classroom settings, Kazdin and Bootzin’s article (1972) was reviewed. This article evaluated nine studies that investigated the use of token economies with children in classroom settings. The findings showed positive results with varying degrees of success. For example, Kazdin and Bootzin reported the results from a study by Kuypers, Becker and O’Leary (1968) that demonstrated a significant reduction of deviant behaviour in school-aged children from 54% of the observational periods during baseline to 28% during treatment. According to Kazdin and Bootzin, these results were only marginally effective when compared to the results of a second study by O’Leary and Becker in 1967. The results of that study showed a much greater decrease in average deviant behaviour from baseline (76%) to treatment (10%). Overall, Kazdin and Bootzin concluded their evaluative review with the following quote, “That token programs are effective in altering behaviors and offer numerous advantages as treatment programs, cannot be disputed from an examination of the literature” (p. 367).

O’Leary and Becker (1967) investigated the use of a token economy to decrease deviant behaviour in school aged children. Seventeen nine year olds, described as emotionally disturbed, were observed and their deviant behaviours were recorded for four weeks. Inter-observer reliability was recorded throughout the study. During the treatment phase, lists of appropriate behaviours were placed on the chalkboard for all students to read. Students received a rating of how well they complied with the instructions on the board at varying periods throughout the day. The ratings could be exchanged for a variety of back-up reinforcers. Fading procedures were employed to eventually discontinue the token program. Verbal praise was given continuously throughout the day for engaging in appropriate behaviours. There was no response cost employed. An AB design, one baseline phase followed by one treatment phase, was used in the study. The mean baseline rate of deviant behaviour ranged from 66% to 91% during the baseline observation and during treatment the behaviour ranged from 3% to 36%. Without returning to another baseline observation, it cannot be concluded with certainty that the intervention caused the behaviour change.

There are several limitations of O’Leary and Becker’s (1967) study. First, students were not reinforced immediately with tokens/points after engaging in the appropriate behaviours listed on the board. This could cause confusion in terms of the reinforcement conditions. In addition, when points are given at the end of the day and not following the behaviour, some incidences of appropriate behaviour could be missed; thus leading to an inaccurate representation of the rate of appropriate behaviour. Another critique was that one of the back-up reinforcers was candy. Candy can be considered an inappropriate form of reinforcement to use within a school setting because it is unhealthy and may cause hyperactivity due to the high sugar content.

A second article that used a token economy to decrease deviant behaviour was reviewed. Filcheck, McNeil, Greco and Bernard (2004) compared the effectiveness of a behaviour change program in a preschool classroom to strategies already in-place by the
teacher. The program was developed for whole-classroom use and it incorporated the following behaviour management strategies: token economy, response cost, stimulating rewards and strategic attention. The study was completed in a preschool classroom of 17 children, with one teacher and one teacher’s aide. Videotaping was used for one hour during a structured circle time. A school observation coding system was used in order to permit coders to track students’ inappropriate behaviours. The frequency of the inappropriate behaviour per child per minute was calculated. A tracking system was also used to record three behaviours, labeled praise, unlabeled praise and criticism demonstrated by the teachers. Additional measures were included such as the treatment integrity checklist, the Conners’ Global Index and a classroom manageability rating. To investigate the treatment effects, the authors used an ABA design: one baseline phase followed by one treatment phase and a second baseline phase. The taped amount of inappropriate behaviour per child per minute steadily decreased from a mean frequency of .45 during baseline to .29 during treatment. These rates indicated that the token economy was effective in decreasing inappropriate behaviour.

This study was well executed and multiple measures were used to examine all of the factors surrounding the inappropriate behaviour. The use of a videotape is very effective for reliability purposes concerning data collection. The only limitation of this study was the employment of the ABA design. This research design does not allow for the incorporation of fading procedures into the treatment program because the researcher must abruptly switch between baseline and treatment phases. Failing to include fading procedures in the treatment plan may be considered unethical as participants could become confused, upset, or frustrated with hastily changing rules regarding their behaviour, rewards and consequences.

When comparing the study by O’Leary and Becker (1967) and Filcheck et al. (2004), similarities and differences were visible. Both studies tracked deviant behaviour, which meant that they had a common focus of decreasing negative behaviour with the use of a token economy. In terms of differences, Filcheck et al. used an ABA design while O’Leary et al. used an AB design. The latter is beneficial because it allowed for fading procedures to be implemented while an ABA design does not. In contrast, an AB design is limited in terms of showing a functional relation between the behaviour change and the intervention. Another difference between the two methods was that Filcheck et al. incorporated videotaping while O’Leary did not. This is significant because the data collected by Filcheck et al. may be considered more reliable due to the videotaping and therefore more significant in terms of proving positive treatment effects. As shown in Kazdin’s evaluative review, token economies are not only proven successful in decreasing deviant behaviour, they are also effective in increasing desirable behaviour. The next two studies that were reviewed show positive results for the use of a token economy to increase desirable classroom behaviour.

Boniecki and Moore (2003) developed a token economy to increase class participation in an undergraduate psychology class. Sixty-three students participated in the study, which required 11 weeks to complete and the authors used an ABA design. Baseline data was collected in the first four class meetings by a research assistant who sat at the back of the class. The research assistant recorded the frequency of direct participation, the latency to participate, and non-direct participation for each student.
During the baseline phase, the instructor would periodically ask the class questions related to the material and he/she would call upon the students to answer the question in the order in which they raised their hands. The instructor would continue to ask students until the question was answered correctly. If no one raised their hand within 60 seconds after the question then the instructor would give the correct answer. During the next four class meetings, a token economy was implemented by the instructor who informed the class that the first person to answer a question correctly would receive a token. At the end of the class, students could exchange their tokens for one point added to their next exam. The last three class meetings served as a second baseline phase. As hypothesized, the amount of directed and non-directed participation increased during the treatment phase. Students appeared more willing to participate while the token economy was in operation, even though non-directed participation was not reinforced. In addition, students took less time to respond to questions asked by their instructor when the token economy was implemented.

There are several perceived limitations of this study. For example, class participation does not necessarily mean answering a question correctly. It is clear that the authors were attempting to increase class participation, but not all participation was reinforced, for example, answering a question incorrectly. The baseline and treatment phases were very short. It would have been useful to increase the length of each phase in order to demonstrate a greater relationship between the behaviour change and the intervention. In addition, there was only one research assistant who collected all the data during the baseline and intervention phases. It would have been beneficial to have another recorder in class to collect inter-rater reliability data. This could eliminate errors in recording the occurrences of behaviours considering that the inter-rater reliability was well established, therefore increasing reliability of the measures used in the study.

McLaughlin and Malaby (1975) conducted a study where pupils in a grade 5/6 classroom earned points for appropriate classroom behaviours, such as accuracy of performance and remaining seated. Points were deducted for inappropriate behaviours, such as, failing to complete work and inappropriate language. Points could later be exchanged for privileges, for example, after-school sports and playing with pets in the classroom. Although the token economy was implemented to increase appropriate behaviours and to decrease inappropriate behaviours, assignment completion and performance accuracy were the only behaviours recorded by the researchers. There were five experimental conditions. First, in variable exchange 1, the token economy was in effect in the class and a variable number of days (m=5) would pass before tokens could be exchanged. In the second condition, letter grade the token economy was withdrawn and the regular classroom management procedures were implemented. Fixed exchange was the third condition in which the token economy was once again implemented but a fixed number of days would pass (5 days) before the tokens could be exchanged. In the fourth condition, completion only, the class remained on the token economy but performance accuracy was not a variable in earning points. The fifth condition, variable exchange 2, was the same as the variable exchange 1 condition. The results showed that the percentage of the class that completed their assignments increased significantly when the token economy was implemented. In addition, performance accuracy rates decreased
during the completion only condition. The results demonstrated that the token economy was responsible for the increases in assignment completion and accuracy rates.

Some concerns exist with this study. First, it might be considered unethical to constantly switch back and forth between conditions in the same classroom. Frequent switching could cause significant confusion for the students in regards to the token economy rules, which could confound the results. Second, there did not appear to be collection of any baseline data.

When comparing the studies by Boniecki and Moore (2003) and McLaughlin and Malaby (1975), parallels and distinctions can be drawn. For example, both studies incorporated accuracy as a factor in their token economy rules, and both attempted to increase some form of desirable classroom behaviour without incorporating a response cost. With regard to differences, McLaughlin used points rather than tokens. The use of points as a substitute for tokens can be criticized because a point is not tangible which may affect its reinforcing quality. Boniecki used a simple ABA design while McLaughlin used a more complicated approach with five experimental conditions. McLaughlin and Boniecki similarly did not use any form of inter-observer reliability. The contrast is the fact that McLaughlin declined from recording incidences of behaviour where Boniecki did record behaviour, but still did not use inter-observer reliability measures.

After a careful analysis of the literature, it is easy to conclude that token economies are a good treatment choice in managing school behaviours. When reviewing the research on token economies, there is substantial empirical support for their use in settings outside of the school system. The following paragraphs serve as a short review of the literature concerning the use of token economies in psychiatric inpatient facilities. To obtain a general idea of the literature in this area, an article by Milby (1975) was reviewed.

**Efficacy of the Token Economy in Psychiatric Inpatient Settings**

Milby (1975) compared and evaluated six experiments in which the authors employed an ABA design to investigate the effects of token economies with psychiatric inpatients. The participants were adult male and female patients diagnosed with chronic schizophrenia. Target behaviours consisted of: self care and personal hygiene; social interactions and verbal participation; meal and bedtime behaviours; delusional speech; punctual attendance to appointments; and completion of in-ward clean-up duties. The purpose of Milby’s article was to re-evaluate studies that employed token economies with psychiatric inpatients and to draw conclusions and make recommendations for further research in light of these studies. Overall, Milby concluded that token economies were effective in helping psychiatric inpatients meet their treatment goals. Although Milby made the conclusion that the literature generally supported the use of token economies, he admitted that some of the research is poorly designed and executed, and the results should be interpreted with caution.

Galbraith (1972) investigated the effects of a token economy with 45 male chronic psychiatric inpatients. Two weeks prior to the implementation of the token
program, a series of patient-staff meetings were held in order to explain the token economy to the patients. The program consisted of four levels. Level 1 was an observational/baseline period for new patients in which five behaviours were observed and recorded for two weeks. These target behaviours were free-time activity, bed-making, bathing, shaving and attending for medication. Level 2 consisted of implementing the token economy in which patients were immediately reinforced for engaging in the target behaviours by receiving tickets. A response cost was also integrated into the program and tickets were deducted for undesirable behaviours such as running away. Tickets could later be exchanged for luxuries like tobacco and movies. A daily record was kept of the tickets that were earned, revoked and spent. A patient could move to Level 3 when they had accumulated six blocks of five successive “satisfactory” days, that is, earning at least a minimum criterion of tickets and not losing more than a maximum criterion. Level 3 included all the privileges in Level 2, with the addition of choosing and completing a ward job. The patient’s mood, activity, sociability, cognitive functioning and ward job performance were rated daily on a 5-point scale in Level 3. Fifteen successive satisfactory days meant that a patient could move to Level 4. Level 4 included the possibility of discharge, eligibility for discharge or placement in an individual behaviour modification program. Data were collected on five of the 45 patients because they were the only individuals who were present for the entire duration of the study. The authors used an AB design and the data showed that the token economy was effective in producing significant positive behaviour changes for the five patients.

There were some limitations and concerns with this study. Implementation of a response cost with this type of population poses some risks. When dealing with patients who have a history of instability and unpredictability, removing tokens can cause conflict and could lead to a power struggle between the patient and staff member. Another limitation related to the manner in which the patients moved from one level to the next. In order to progress from Level 1 to Level 2, a patient has to accumulate six blocks of five successive satisfactory days. The amount of tickets one person may be able to earn per day can differ drastically from another person. Each patient is unique and presents distinctive behaviour problems at varying degrees of frequency and intensity. It appears as if the researchers were making it difficult for some patients to succeed. The final limitation of this study is the small sample size of five patients. The researchers may have improved their opportunity to increase the number of complete data sets by attempting to control for environmental factors even for a short period of time.

Knepler, Sewall and Boor (1972) investigated the effects of a token economy in two separate children’s psychiatric inpatient facilities. Routine bedtime, wakeup time, and mealtime activities were examined and tokens could be earned for engaging in the appropriate behaviours or lost for engaging in inappropriate behaviours. A list of these target behaviours and the amount of tokens earned or lost were posted on the children’s bedroom doors and in the dining area. A baseline phase was conducted for four days during which time the agency staff members recorded the incidences of the target behaviours. Following the baseline phase, the token economy rules were explained to the patients over a 10 day period after which the token economy was implemented. Data were recorded for four consecutive days and were compared with the baseline phase. Data were collected for four days during the treatment phase because variables such as
admissions, discharges, staff-child ratio and medication changes needed to remain constant in order to reduce confounding variables with the treatment effects. An AB design was used to demonstrate the treatment effects. The results showed a 38% increase in the mean number of tokens awarded per child for the first ward and a 30% increase for the second ward. The results also showed a decrease in the mean number of deducted tokens from baseline to treatment. This outcome demonstrated that the intervention was successful in increasing the occurrences of appropriate behaviours and decreasing the rates of inappropriate behaviours.

The only apparent limitation of this study is that the baseline and treatment phases were short. Longer phases might allow for a stronger demonstration of the treatment effects.

There are several differences and similarities between the two studies. A response cost and a relatively small sample size were common to both studies. Knepler et al. (1972) used two separate wards to complete their research whereas Galbraith (1972) used only one. This is significant because the use of two separate wards creates certain complications, for example the need for additional research staff due to two separate research locations. In addition, Galbraith’s token economy incorporated a criterion for discharging patients, where as Knepler’s did not. Galbraith did not attempt to control environmental variables like admissions, discharges and medication changes; he simply excluded incomplete patient data charts, which left a very small sample size, but a longer baseline and treatment phase. In contrast, Knepler controlled these variables which allowed more participants in the experiment, but caused the baseline and treatment phases to be very short.

Overall, the literature regarding the use of token economies in psychiatric inpatient facilities is positive. Of all the possible factors that can lead to successful implementation of behaviour change programs, one of the most important is staff and teacher training. According to Han and Weiss (2005), “An important factor in enhancing the quality as well as quantity of program implementation, and a major determinant of success in school program implementation is the amount and quality of the training that teacher’s receive in regard to the program” (p. 670). The subsequent paragraphs review the literature regarding staff and teacher training in the effective implementation of token economies. The article by Han and Weiss serves as a good starting point when attempting to examine this area of research.

The Need for Treatment Manuals/Training for Program Implementation

The purpose of the article by Han and Weiss (2005) was to review the literature related to teacher implementation of school-based prevention and intervention programs. The authors focused on two main areas; school and teacher specific factors and program specific factors. School and teacher specific factors consisted of administrative support, teacher self-efficacy beliefs, professional burnout and program acceptability, and program pre-implementation attributions. Program specific factors included performance feedback and teacher training. The authors proposed that four basic ingredients are characteristic of sustainable teacher-implemented classroom programs according to their
review of the literature. These four basic ingredients include a program that is acceptable to schools and teachers, effective, feasible to implement on an ongoing basis with minimal resources and flexible and adaptable. Han and Weiss assert the following, “There is sustainable evidence indicating that, when properly developed and implemented, school-based mental health programs can produce positive effects on children’s behavioural and emotional functioning” (p. 665).

Kealey, Peterson, Gaul and Dinh (2000), conducted 65 in-school training programs to teach a tobacco prevention curriculum. Over 500 teachers from 72 different schools participated in the program. Implementation of the treatment program was measured by the teachers’ self report and through direct observation by the project staff. Project staff directly observed the implementation of the smoking prevention program in the classroom and rated teacher performance on a 7-point scale (1=unsatisfactory, 7=excellent). According to the observers, 89% of the observed lessons operated as intended; therefore the authors concluded that the training sessions were effective in promoting the successful implementation of a behaviour change program. Ninety-six percent of the teachers completed questionnaires after they attended the training sessions. The results from the questionnaires showed 100% of the teachers who completed the questionnaire enjoyed participating in the training, and 90% felt that they were prepared to teach the tobacco prevention curriculum after participating in the training sessions.

There are several aspects of this study that may be considered unfavorable. For example, the manner in which the quality of the implementation of the program was assessed is a major limitation. The teachers who were implementing the program knew when the observer was going to be in the classroom to collect data. It is possible that the manner in which the teacher implemented the program while the observer was present may not be a true representation of their teaching method. This confounding variable could be due to the pressure of having an observer in the room and the opportunity to plan for the observer’s visit. The observer collected data on the implementation of the program by rating the teacher on a 7-point scale. This type of data is opinion based and not necessarily quantitative. Data on the teacher evaluation would have been more valuable if pre- and post- questionnaires were administered rather than just a post questionnaire. To improve the study, the authors could have given the students a questionnaire regarding the amount of material they remember and the likelihood that they would use the information in the future. This type of questionnaire could serve as an additional form of data collection and a measure to gauge the efficacy of the program. Furthermore a control group was not included in this study. A control group would have improved the study by allowing for more extensive data analysis.

Rohrbach, Graham, and Hansen (1993) completed a study that addressed the dispersion of a substance abuse prevention program. This study analyzed four factors, of which one was the effectiveness of teacher training. Sixty teachers and 1147 fifth grade students were randomly assigned to one of two conditions; an intense teacher training program, or a brief teacher training program. Assessments of these conditions were obtained through the self reports from teachers and students, classroom observations, and evaluation of immediate program outcomes. Teachers completed three self report questionnaires; one at the end of the training session, one at the end of the initial
implementation, and one at follow-up. Observations of the program were completed. Two observers rated the teachers on an array of items (e.g., class control and enthusiasm) using a 7-point scale. The student self report questionnaire was distributed and completed at the end of the initial year of the program implementation. The student questionnaire focused on program-specific knowledge and normative beliefs. The study hypothesized that the teachers in the intensive training condition would be more likely to implement the program and would feel more prepared and enthusiastic about implementing it, therefore increasing program effectiveness. The results showed that there were no significant differences in the assessment measure data between the two conditions; therefore the hypothesis was not supported. The authors offered several reasons for their findings. The main reason was that the two conditions were too similar in terms of their content and amount of teacher support. The study could have been improved by ensuring that the two conditions were significantly different, for example offering an intensive training condition with plenty of teacher support and a brief training condition with no teacher support.

The student self reports could have been improved by adding a section that focused on rating the teacher in terms of their teaching methods. Further more, the validity of the ratings could have been increased by spontaneous visits from the observers, rather than pre-arranged visits. Once again, the quality of teacher implementation was assessed using a subjective Likert scale. The study may have been strengthened if an alternative form of data collection was used, for example using a more quantitative approach, such as event recording of observable behaviours displayed by the teacher.

A third article by Eisses et al. (2004) was reviewed. This study examined the effects of staff training on the detection and treatment of depressive symptoms in 426 elderly subjects residing in residential homes in the Netherlands. Ten residential homes were included in the randomized control trial and the residential homes were randomly assigned to one of two conditions. These conditions were an experimental group and a control group in which staff received no training. Staff in the experimental group participated in a training program that focused on the recognition of depressive symptoms in residents and the recording of observations according to the Behaviour Rating Scale for Psychogeriatric Inpatients (Dutch abbreviation GIP-28). Data were collected at the baseline and follow-up phases. Depression was assessed using the validated Dutch version of the Geriatric Depression Scale (GDS), which is a self-rating scale. Treatment effects on symptom recognition were assessed by asking staff to rate each resident as probably depressed or probably not depressed at baseline and follow-up. These ratings were compared with the results of the GDS. Treatment of depression was assessed and recorded as having been implemented or not through interviews with care givers and a review of medical records. The results showed that the staff in the experimental group recognized depressive symptoms of residents at a significantly higher rate at follow-up when compared to the control group. Due to the identification of depressed residents, treatment rates increased in the experimental group as compared to the control group.

This study was well executed. An AB design was employed in collaboration with an experimental and control group, which allowed for comparison between the experimental conditions and the experimental groups. The authors stated the following in the discussion section of their article, “In summary, we have found support for the
beneficial effects of a program of staff training in improving detection, treatment and the course of depression in normal practice” (p. 12).

There are several differences and similarities between the study by Kealey et al. (2000), Rohrbach et al. (1993) and Eisses et al. (2005). For example, self reports and direct observations were similarly used as measures to collect data in Kealey’s and Rohrbach’s studies but contradictory to Eisses who used only a self report measure. It is expected that the demonstration of treatment effects would be enhanced by employing several measures of data collection, for example direct observations and self reports, rather than self reports alone. A second similarity was both Kealey et al. (2000) and Rohrbach et al. (1993) chose to use a 7-point scale as a form of direct observation data collection.

A number of differences between the studies are noted. Rohrbach et al. (1993) administered three teacher self reports, while Kealey and Eisses simply administered one. Administering multiple self reports allows for a more detailed, in-depth and extensive data analysis when compared to administering one self report. Rohrbach also employed student self reports in addition to the teacher self reports, which allows for a more diverse data analysis, while Kealey did not use student self reports. Rohrbach’s direct observers were blind to the treatment condition of the teachers they were observing and Kealey had only one treatment condition; therefore, the observers could have been biased in their ratings. In addition, Rohrbach and Eisses executed studies in which control groups were used as comparison with the experimental groups. Kealey chose not to include a control group in his study. This is significant because the use of a control group allows for comparisons across subjects in addition to comparisons across experimental conditions.

The Importance of an Evaluation in Staff Training Programs/Manuals

It was established through a review of the literature that the use of staff training programs and/or treatment manuals can enhance positive results when implementing a behavioural intervention (Eisses et al., 1993; Kealey et al., 2000; and Rohrbach et al., 1993). The use of a training manual would increase clear guidelines and rules while decreasing confusion in the implementation of most programs. In order to ensure that a training manual is understandable, comprehensive, and effective, an evaluation component should be incorporated into the training process. Self report questionnaires have been employed and validated for the evaluation of treatment programs. For example, Elke, Richter, Petermann and Hans-Christian (1997) conducted a study that proved the validity of a self report questionnaire for the evaluation of a training program. Sonenstein (1997) published an article that provided guidelines regarding the effective development and implementation of self report questionnaires in order to evaluate staff training programs. Based on this literature, a self report questionnaire was developed to evaluate the Positive Reinforcement Point System training manual.

In conclusion, the literature highlights the benefits of having well trained staff. A training manual would likely increase the level of training as it was consistently identified in the literature as having a positive effect on the implementation of treatment programs. A training manual would assist new staff in establishing clear rules and guidelines when executing a behavioural intervention. Due to the challenge of
inappropriate behaviours displayed by school aged children in the classroom, there is a significant need for behaviour management strategies that have been proven effective through experimental research. Kazdin and Bootzin’s (1972) article gives an abundance of empirical support for the use of token economies in and out of the school system. Han and Weiss’s (2005) article demonstrates the importance of teacher training in the effective implementation of behaviour change programs. Furthermore evaluating the effectiveness of training programs and manuals is also very important for the effective implementation which was demonstrated by Elke, Richter, Petermann & Hans-Christian (1997). It is important to review the literature of any behaviour management strategy that one attempts to use in order to understand its effectiveness and applicability. Understanding these behaviour strategies will ensure that potential clients will receive the best treatment available in the psychology field.
Chapter III- Method

The training manual was developed to provide clear guidelines and rules of a whole-class token economy in order to increase consistency during the implementation process of a behaviour program. The token economy was called the Positive Reinforcement Point System (PRPS) and was designed and employed in a public school behaviour classroom. The PRPS focused on the management of inappropriate behaviour through reinforcement. The flow of new staff within the classroom warranted a clear and simple training manual in order to facilitate effective and consistent program implementation.

Participants, Client Group, Setting

The PRPS was developed for implementation in a grade 7/8 behaviour classroom and used in conjunction with other components of the current behaviour program, for example, Second Step. Second Step was a program that focused on the development of skills related to anger and relationships that one faces on a daily basis. The students in this behaviour class were referred to the program by their home-school faculty, the school in which they are enrolled, due to their inability to manage their behaviour in a regular classroom. The program was arranged so that eight girls attended their home-school in the morning and then transferred to the behaviour program at lunch. Eight boys spent the morning in the behaviour program and attended their home-school classes in the afternoon. Most of the children took medication for attention deficit hyperactivity disorder (ADHD) and had been diagnosed with either, ADHD, oppositional defiant disorder, depression and/or anxiety disorders. The Positive Reinforcement Point System attempted to meet the specific needs of these children.

The classroom teacher of the behaviour program, the educational assistant and two placement students used the manual for the PRPS. The manual was written in a clear and understandable format so that an individual with any type of educational background could understand the main principles and implement them.

Materials

In order for the PRPS to be implemented, specific materials were developed prior to commencement of the program. The first item was a points book for each student, which contained two information sheets; the rules of the PRPS and a list of appropriate behaviours. The appropriate behaviours comprised three main areas of behaviour; compliance, respect, and not-provoking. The book also included a daily point tracking sheet and a daily reflection sheet.

Three posters, one for each of the positive target behaviours, were also required. These posters listed the appropriate behaviours in which the students were expected to engage to earn the points for each area of behaviour. The behaviours listed on these posters were the same behaviours recorded on the information sheet in the points book.

Two laminated posters one for the girls and one for the boys, were also required. These posters were set up in a grid fashion with the student names printed on the left side
of the poster and 20 days listed along the top. This grid was used to record the amount of points each student earned in the three areas of behaviour for each day.

Two additional laminated posters were also needed, one for each gender. These boards were illustrated as basketball courts and were placed horizontally on the wall. The students’ names were listed at the left end of the court and a basketball net for each student was on right end. In between the students’ names and the basketball nets were 12 velcro pieces and one velco piece was placed on the basketball net. The velco pieces led from the left end of the court to the right end. Sixteen ping pong balls spray painted orange with black lines on them to represent basket balls were prepared. Velcro pieces were placed on the side of each basketball so that the balls could be stuck to the velcro pieces on the basketball court.

**Training Manual Outline**

The training manual included a detailed, step-by-step explanation describing the implementation of the PRPS. It also contained examples of the materials that were used in the implementation of the program. A glossary of terms was placed at the back of the manual in order to promote clear understanding of specific terms. An outline of the training manual components and a short description of each section are listed below.

An introduction to the manual which included a description of the objective, purpose, program setting, and users of the manual were discussed in the first section.

The second section, which was labeled “Part One: The Token Economy” was an introduction to token economies and it specifically outlined their main components according to Miltenberger (2004). A short literature review was also included in this section to demonstrate the empirical support for the use of token economies.

The third section, which was labeled “Part Two: The Positive Reinforcement Point System” comprised of a detailed explanation of the PRPS and an outline of the components of the PRPS. The materials that were required in order to implement the program were explained and examples of the materials were provided. A detailed step-by-step explanation of the implementation procedures was also included in this section. Examples were provided regarding proper presentation of verbal praise and how to control the discussion when the points were being awarded.

The fourth section involved future recommendations for alternate settings in which the program could be implemented. For example, the PRPS could be employed in a regular classroom. In order to implement the PRPS in a regular school classroom, certain aspects of the program would need to be changed. For example, awarding the points would take too long in a classroom of 20 to 30 students. Perhaps peer and self-monitoring would be better suited for this type of population. In this section of the manual, alternate settings and recommendations for program changes were discussed.

A glossary of terms was added to the end of the manual to clarify words that could be unknown or unfamiliar to manual users.


**Evaluative Measure**

A self report questionnaire was developed to evaluate the feasibility, applicability and readability of the training manual. The questionnaire included 10 questions and responses were assessed using a 5-point Likert scale with 1 meaning *strongly disagree*, 3 representing *neutral* and 5 signifying *strongly agree*. The questionnaire was used as a tool to gather information regarding the limitations of the manual and areas for improvement. The questionnaire was completed by one placement student who used the manual and by an individual who read the manual but did not implement the PRPS.
Summary of Thesis

In response to the empirical support for the positive effects of proper staff training, a training manual was developed in order to facilitate consistent implementation of the Positive Reinforcement Point System (PRPS). The PRPS is a whole-class token economy designed for implementation in a behaviour classroom in order to meet the needs of 16 adolescents with behaviour issues. The manual was used by the classroom teacher, an educational assistant, and two placement students at the behaviour program. Specific materials were required in order to properly implement the PRPS. These materials ranged from handouts and posters to ping pong balls and Velcro. The PRPS is a fun behaviour management program that facilitates communication between the student, the teacher and the home setting.

Limitations of the Thesis Report

One of the major limitations of the thesis report is rooted in the literature review. It is clear from a quick glance that the literature pertaining to the use of token economies in psychiatric inpatient facilities is severely outdated. An attempt was made to discover the reason for the outdated literature and the lack of new research in the area. An article was found in the October 1990 issue of the *Journal of Behavior Modification* written by Shirley M. Glynn. She attempts to explain this phenomenon. Glynn (1990) notes, “Many psychological students are completing graduate school without being exposed to the token economy literature and have little comprehension of how a token economy really functions” (p. 384). She describes a paradox in which the token economy is one of the most well-validated non-medical treatments for psychiatric patients, but where surveys indicate that they are rarely used in clinical settings (Hall & Baker, 1986 in Glynn, 1990). According to Glynn there are several explanations and factors that have lead to a declined use of token economies in psychiatric inpatient facilities. These factors include reduced length of inpatient admissions, a greater emphasis on community-based treatments, economic constraints, and legal and ethical challenges. Glynn describes in detail how each factor has affected the use of token economies in psychiatric inpatient facilities.

The decreased length of hospital admissions, according to Glynn, is the factor that has had the most profound effect on the use of token economies in psychiatric inpatient facilities. Token economies require extreme lengths of time for desired treatment outcomes to be reached. The change in the average duration of admission greatly decreases the utility and efficacy of token economies in this setting.

The shortened inpatient hospital admissions have lead to an increase in the use of community-based treatment facilities. If a patient cannot receive the necessary treatment from a hospital the next logical step is to be referred to or to seek outpatient treatment. The past 20 years has shown a great increase in the number or patients being referred to or seeking outpatient treatment rather than inpatient care (Glynn, 1990).

Tokens economies require time, staff and materials in order for proper and effective implementation. These factors are costly and require a great deal of funding from health care systems, which points to the economic factors that have affected the use of token economies in psychiatric inpatient facilities. If a psychiatric inpatient facility is
understaffed and under funded, the chances of implementing a time consuming and costly token economy is low.

The final factor outlined by Glynn is legal and ethical issues. Legal and ethical issues have increased in importance over the past 20 years, which has had a great impact on the use of token economies. The most profound ethical and legal issue is the suitability of reinforcers in the implementation of token economies. Back-up reinforcers that have been employed and considered privileges in the past, for example clothing, storage space, and food have now been ruled by the courts as rights, and can no longer be used as reinforcers. A second legal issue is the use of cigarettes as reinforcers. According to Glynn cigarettes have proven to be highly motivating for many psychiatric patients. The health risks of smoking are severe and well known, thus facilities are now smoke-free. Once again, the use of a motivating back-up reinforcer is deemed unethical. It is clear that legal and ethical issues have greatly restricted the use of reinforcers that were previously shown to be very motivating and effective in producing desired behaviour change.

Overall, Glynn provides a clear explanation of the decreasing use of token economies in psychiatric inpatient facilities and the lack of research in this area. Although the outdated research is a limitation of the thesis report, the efficacy of token economies remains unmistakable.

A second overall limitation of the thesis report is the fact that the evaluation form for the PRPS was completed by only one individual who implemented the program when it could have potentially been completed by three individuals who implemented it. The latter individuals who could have filled out the evaluation form include the educational assistant, the classroom teacher, and the placement student. The educational assistant did not reply to the email inquiring if she would complete the evaluation form. It was deemed inappropriate to ask the classroom teacher to fill out the evaluation form, as was very busy preparing to change job locations. The placement student who also implemented the PRPS and used the manual consented to fill out the evaluation form. An individual within the school where the program was implemented was asked if she would read the manual and complete the evaluation form to which she consented. Although some data and feedback was collected regarding the training manual, further steps could have been taken to ensure that the educational assistant and the classroom teacher completed the evaluation form as well. This additional data would have provided important feedback and strengthened the thesis report.

Limitations and Challenges of the Training Manual and the PRPS

Several limitations of the training manual and the PRPS exist. First, long term data collection and exhibition procedures are not discussed or explained in the training manual. This is a limitation because without a plan for collecting and displaying data, it is difficult to demonstrate that the intervention is effective in decreasing inappropriate behaviours.

A second limitation of the treatment manual involves the discussion of awarding the points. This process can be tedious and lengthy, especially if a student does not understand why they are not receiving full points. As a result of this misunderstanding
and lengthy process of awarding the points, anger and frustration may develop. The manual does not clearly state how to effectively deal with these situations, which is a serious limitation.

Another aspect that is not discussed in the manual is client resistance. It is expected that some form of client resistance will develop as a reaction to a newly implemented program. If an educational facilitator is unaware that client resistance is a normal and expected reaction, they may assume that the program is not working and discontinue its use prematurely. The fact that the manual does not mention client resistance is another major limitation.

The final limitation of the manual and the PRPS is that the program may not be feasible in a large classroom of 20 or more students. The manual is designed for a very specific type of class and although suggestions are made within the manual regarding possible program alterations to meet specific populations, the program is not easily applicable to a large group.

In addition to the existence of limitations of the manual several challenges in creating the program and manual were present. The most challenging aspect of developing the manual was doing so without using behavioural terms. In order for educational facilitators to understand and use the manual, the language had to be clear and written in terms that anyone could understand. A second challenge in developing the program and manual was meeting the needs of the educational facilitator and the students. It is understandable that during the school day many academic tasks must be completed and pressure exists for teachers to instruct as much of the curriculum as possible. Therefore a program had to be designed that was not time consuming, but thorough enough to meet the needs of the students. The program had to be visual, simple, easy to implement, extensive, appealing, fun and extendable to both areas of the students’ lives at home and school. This type of program was very hard to design.

Not only did challenges exist in creating the manual, but also in its application. First, is the possibility that the language, despite all the effort put forth to avoid it, is still too behaviourally oriented. Some educational facilitators may not understand what the author is trying to say. It is the hope that by including the glossary of terms and the feedback questionnaire that these types of challenges and limitations will be identified and changed accordingly.

A second challenge in implementing the PRPS and using the manual was that two students did not like the PRPS and showed great resistance with their participation. Some degree of resistance was warranted, but these two students rarely to never returned their completed points book and seldom participated in the discussion of the awarding of the points.

The third challenge involved the students. At times the students became very angry and hostile when they were told that they had not earned full points for the day. This was a big challenge and took a great deal of time and explanation in order to de-escalate the situation.

Lastly, time was always a challenge when implanting the program. Discussing the awarding of the points usually took at least 20 minutes each day, in the morning and in the afternoon. This is a significant amount of time to subtract from a half a day,
especially when the students were eager to get the free time they had earned. Many students would get restless and agitated waiting for the process to be over.

**Ethical Issues**

Ensuring that the manual is applied consistently and correctly is the single perceived ethical issue. This is an ethical issue because if the PRPS is not implemented consistently and correctly between settings and upon the arrival of new staff, harm can be done to the clients. Harm is shown to be occurring when an increase of inappropriate behaviours arises rather than a decrease. Frustration and confusion may develop with unclear guidelines and inconsistency of rules resulting in an increase of inappropriate behaviour. If a consistent increase of inappropriate behaviours is perceived, the use of the manual is questionable and perhaps an alternative form of behaviour management should be explored.

**Future Recommendations**

It is possible to implement the PRPS in other settings than a behaviour classroom. For example, it is possible to implement the PRPS in a regular classroom, in summer camp for school aged children or in a group home. It is possible to implement the PRPS virtually in any setting where there are school aged children and a need for appropriate behaviour to be increased and negative behaviour to be decreased. Certain components and materials would need to be modified in order to fit these specific populations and settings.

If it is deemed necessary to change certain aspects of the PRPS the following suggestions may be helpful. It would be beneficial to go over the compliance, respect and not-provoking behaviours and remove irrelevant behaviours or add behaviours that are relevant to the classroom. For example, if “keeping your hands to yourself” is not an issue, than that behaviour should be removed from the list. If getting ready for recess in a timely fashion is a behaviour to be targeted, add it to the compliance behaviours lists. Most of the behaviours that would be targeted in a classroom setting can fit in one of the behaviour categories, respect, compliance and not-provoking. It may not be feasible to have a full discussion regarding the awarding of the points at the end of the day in a classroom of 30 students as it would take too long. The PRPS could be modified so that the students have more responsibility in keeping track of their own behaviours and the behaviours of their peers. A weekly discussion could be held at the end of the week on Friday and points awarded on a weekly basis rather than a daily basis. In addition to these changes, creating the Perfect Day Tracking Poster to resemble a basketball court can be easily modified to appeal to any group. A basketball court with basketball nets and balls were chosen in the original implementation of the PRPS because the students enjoyed basketball and found it very reinforcing. If a class generally enjoys an adventure theme, the poster could be designed to look like a treasure map with movable pirates to represent the students moving along the trail, or an “under the sea” scene with little fish representing the students swimming across the poster. The PRPS can be modified to appeal to any age group and almost every population. The seven basic components can be changed so that the specific needs of any group are met.
Several recommendations for improvement of the manual and the PRPS were extracted from the feedback questionnaire that was completed by the placement student and primary school teacher. The results of section one which pertained solely to the readability of the manual revealed that overall both individuals found the manual well organized and easy to read. Most of the items received an average score of 4, on the 5-point Likert scale with 5 meaning strongly agree. The language was deemed moderately difficult to understand with an average rating of 2.5. Suggestions for improvement included bolding the words in the manual that are included in the glossary of terms so as a user is aware of the words they can “look up” and adding colour to the appendices to make them more interesting and stimulating for the user.

The results of section two of the questionnaire were positive. The average rating was once again 4 on the 5-point Likert scale. The primary school teacher admitted that she did not feel comfortable enough to implement the PRPS after reading the manual which was a rating of 2 on the first item of the questionnaire. This rating could be due to the fact that she had only read the manual once and did not get a chance to see the program being implemented. It was suggested that a short workshop be developed to assist individuals who are interested in implementing the PRPS and who prefer to learn with a hands on approach. It was also suggested that the length and detail of the step-by-step instructions section of the manual should be increased to provide the user with more instruction of how to actually implement the program. The individual who made this suggestion voiced that she could not visualize how to execute the program and she felt she needed more instruction in this area.

It is recommended that future research is completed regarding the use of token economies in psychiatric inpatient facilities based on Glynn’s (1990) article. Due to the lack of recent literature in this area, many psychology students are not aware of the token economy and its benefits. She suggests that research is needed in order to develop modified versions of the token economy that is less expensive to execute and that can be implemented in inpatient facilities and in outpatient facilities.
References


THE POSITIVE REINFORCEMENT POINT

SYSTEM

Training Manual

Michelle Wagar
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Introduction to the Training Manual

Purpose and Objective

The purpose of this manual is to provide clear step-by-step instructions of how to implement a behaviour program known as a token economy. The manual provides the background information that is necessary to understand the concept of a token economy and the way in which to implement a specialized version of it, which is called the Positive Reinforcement Point System (PRPS). The objective of the manual is to facilitate and maintain consistency in the implementation of the PRPS.

Who was the manual developed for?

The manual was developed for the teacher in a behaviour classroom where 16 students were receiving support regarding their behavioural issues and low literacy levels. The classroom teacher had expressed the need for a behaviour program that would assist her in promoting the students’ engagement in appropriate behaviours through reinforcement and positive techniques. The program was developed in the form of a token economy and the manual was developed to facilitate the implementation of it.

Where was the manual used?

The manual was used in the grade 7/8 behaviour classroom where the PRPS was implemented. All of the materials were prepared and the step-by-step instructions were followed by the classroom teacher, educational assistant and two placement students.

How do I use the manual?

It is suggested that an individual who wishes to use the manual and implement the PRPS should be familiar with the entire manual. There is a glossary of terms at the back of the manual, before the appendices, to help explain any terms that may be unfamiliar. The user should then make the necessary copies of the appendices in the back and prepare the recommended posters. The setting in which the program will be implemented should be organized and prepared with the posters placed in the locations prior to the program’s implementation as suggested in the manual. The step-by-step instructions should then be followed.
Part One: The Token Economy

The Function of the Token Economy

The function of a token economy employed in a classroom setting is to increase rates of appropriate behaviour by reinforcing it with tokens or points. According to Miltenberger (2004) “the purpose of a token economy is to strengthen clients’ desirable behaviours that occur too infrequently and to decrease their undesirable behaviours in a structured treatment environment or educational setting,” (p. 472). The process includes immediately reinforcing the occurrence of appropriate behaviour with a token which is exchangeable for a larger backup reinforcer. Backup reinforcers are student selected items and activities they wish to receive as a reward for earning a certain amount of tokens or points. Educational facilitators can incorporate a response cost component in their token economy. A response cost is the removal of tokens contingent on the occurrence of inappropriate behaviours. It is very important that appropriate and inappropriate behaviours are clearly defined and that the reinforcement schedule is consistent in order to maximize treatment effects (Miltenberger 2004). The specific components of a token economy will now be discussed in detail.

The Seven Basic Components of the Token Economy

According to Miltenberger (2004) there are seven basic components of a token economy. The first component is the target behaviours. These are the appropriate behaviours which are identified as occurring infrequently, and the goal is to increase them. Tokens that are used as a source of immediate reinforcement, and backup reinforcers that are exchanged for the tokens are the second and third components of a token economy, respectively. The fourth component is a schedule for token delivery. The tokens can be delivered on a continuous or intermittent schedule; thus, a continuous token delivery schedule means that every occurrence of the target behaviour(s) is reinforced with a token. An intermittent token delivery schedule occurs when a representative portion of the target behaviour is reinforced, for example, every other occurrence, or every third occurrence. The fifth component of a token economy is the rate at which tokens are exchanged for backup reinforcers. Most token economies employ a daily rate of token exchange, meaning that at the end of each day, the students have the opportunity to exchange their tokens for a backup reinforcer. A time and place for the exchange of tokens for backup reinforcers is the sixth component of a token economy. In certain cases a response cost is incorporated in the program as the seventh component.

Component 1: The Target Behaviours

The first component of a token economy, the target behaviour(s), is very important. These behaviours must be clearly defined to ensure that the students have a good understanding of how they are expected to behave in order to receive a token. The goal of a token economy is to increase the frequency of the target behaviour(s) by providing positive reinforcement and verbal praise immediately contingent on the
occurrence of the behaviour. Miltenberger (2004) defines positive reinforcement as “a type of reinforcement in which, contingent on the behaviour, a stimulus or event is presented and the probability of the behaviour increases in the future” (p. 564).

**Component 2: The Tokens**

Tokens are the second basic component of a token economy. It is important to select items to use as tokens that are tangible and easy to dispense. Selecting tangible items is significant because it is more rewarding to receive an item as an immediate reward rather than an item that cannot be held. Examples of appropriate tokens include poker chips, points recorded on cards, stickers and tickets. Educational facilitators should consider the possibility that tokens can be lost, stolen or replicated in the selection process.

**Component 3: The Backup Reinforcers**

The effectiveness of the token economy depends on the reinforcing qualities of the backup reinforcer, which is the third component of a token economy (Miltenberger, 2004). In other words, students will not want to behave in the manner required to earn tokens unless they are motivated to obtain the backup reinforcer. Students are often involved in choosing backup reinforcers as this will increase the probability that the students will be motivated to behave appropriately in order to earn the tokens. As some student choices can be unacceptable or inappropriate, explaining to the students that their choices will be considered but not necessarily approved may prevent anger, frustration and disappointment. It is also important to ensure that the items and activities on the backup reinforcer list are not available to the students other than as an exchangeable reward for tokens. If students can obtain an item or activity that is on the backup reinforcer list without exchanging their tokens for it, the item or activity loses its reinforcing quality and should not be included on the list. It is also a good idea to have several items on the backup reinforcer list as this will ensure that the students will not become satiated with the same backup reinforcers.

**Component 4: The Schedule for Token Delivery**

The fourth component of a token economy is an appropriate schedule for token delivery. In most cases, each instance of the target behaviour(s) is rewarded with a token, which is called a continuous reinforcement schedule (Miltenberger, 2004). Situations may arise where it is necessary to slowly fade out, or end a token economy program. In these cases, an intermittent schedule of reinforcement is appropriate which means that not every instance of the target behaviour is rewarded with a token.

**Component 5: The Token Exchange Rate**

The fifth component of a token economy, the token exchange rate, should be decided with careful consideration. Each backup reinforcer must have a price; an amount of tokens required in order to purchase the reward. If a backup reinforcer costs too much
and the expectations are too high, students may become easily discouraged and frustrated. If a backup reinforcer is too cheap, students may perceive the program as unchallenging and may not be motivated to try and earn tokens. A maximum number of tokens that can be earned in one day should be decided upon prior to the implementation of the token economy and the exchange rate should be set accordingly. A backup reinforcer should not require perfection but rather a reasonable level of exhibited appropriate behaviour. The token exchange rate is often changed several times before a suitable level is reached. It may take several attempts to reach an appropriate exchange rate as a reasonable level of exhibited behaviour takes time to discover. It is unfair to expect the same rate of appropriate behaviour from a group of students who are attending a behavioural program as a group of students who are participating in a regular classroom.

Component 6: A Time and Place for Exchanging the Tokens

Establishing a time and place for exchanging the tokens is the sixth component of a token economy. This component must be decided prior to the implementation of the program. In some cases, a specific room is used as a place for exchanging tokens in which the backup reinforcers are displayed. A list may be posted in a location where the students can choose a backup reinforcer and exchange the appropriate amount of tokens for the reward. The end of the day is a suitable time for token exchange because it allows the students to earn tokens for the entire day before having the opportunity to exchange them.

Component 7: The Response Cost

The final component of a token economy, a response cost, is not always included in the program. Educational facilitators may choose to include a response cost in their token economy when there are inappropriate behaviours that compete with the desirable target behaviours. A response cost occurs when tokens or points are deducted contingent on the occurrence of inappropriate behaviour. Although a need for a response cost may exist, it may be excluded for a variety of reasons. For example, the inclusion of a response cost creates a more complicated program, which may not be suitable for students with certain disabilities such as autism. When aggression is a major issue for students, the response cost can be excluded. Aggression can be easily triggered for some individuals by attempting to remove tokens from their possession. In order to prevent a power struggle, it would be preferable to use non-tangible tokens, for example, points that students do not keep in their possession. In order to implement a response cost, it is important to clearly define the inappropriate behaviours that warrant a token deduction. This ensures that students completely understand why the tokens are being taken away.

When implementing a token economy, it is best to make the program fun, creative, clear, and visual; for example, consider a grade five public school classroom. Play money can be used as tokens and a corner of the classroom can be designated for the “Tuck Shop” where the students can buy their backup reinforcers. This approach promotes math and money skills and can be a fun experience for teachers and students. Ensure that the posters of the target behaviours are in visible locations in the classroom as
Presenting the tokens should always be paired with specific verbal praise. The pairing of verbal praise with tokens ensures that the students understand exactly why they are receiving the token which can be a very encouraging and rewarding experience.

Background and Empirical Support of the Token Economy

Behaviour management is one of the most common challenges teachers face today. Disruptive and inappropriate behaviours make it difficult to instruct classes as a whole. Token economies have proved to be one of the most powerful behavioural interventions for improving school behaviour (Kazdin & Bootzin, 1972). There is an abundance of literature that gives empirical support for the use of token economies within school settings. Now that the specific components of token economies have been discussed, several studies will be summarized that prove the effectiveness of this behavioural intervention.

O’Leary and Becker (1967) investigated the use of a token economy to decrease deviant behaviour in school aged children. Seventeen nine year olds, described as emotionally disturbed, were observed and their deviant behaviours were recorded for four weeks. Inter-observer reliability was recorded throughout the study. During the treatment phase, lists of appropriate behaviours were placed on the chalkboard for all students to read. Students received a rating of how well they complied with the instructions on the board at varying periods throughout the day. The ratings could be exchanged for a variety of backup reinforcers. Fading procedures were employed to eventually discontinue the token program. Verbal praise was given continuously throughout the day for engaging in appropriate behaviours. There was no response cost employed. An AB design, one baseline phase followed by one treatment phase, was used in the study. The mean baseline rate of deviant behaviour ranged from 66% to 91% during the baseline observation and during treatment the behaviour ranged from 3% to 36%. Without returning to another baseline observation, it cannot be concluded with certainty that the intervention caused the behaviour change.

A second article that used a token economy to decrease deviant behaviour was reviewed. Filcheck, McNeil, Greco and Bernard (2004) compared the effectiveness of a behaviour change program in a preschool classroom and compared it to strategies already in-place by the teacher. The program was developed for whole-classroom use and it incorporated the following behaviour management strategies: token economy, response cost, stimulating rewards and strategic attention. The study was completed in a preschool classroom of 17 children, with one teacher and one teacher’s aide. Videotaping was used for one hour during a structured circle time. A school observation coding system was used in order to permit coders to track students’ inappropriate behaviours. The frequency of the inappropriate behaviour per child per minute was calculated. A tracking system was also used to record three behaviours, labeled praise, unlabeled praise and criticism demonstrated by the teachers. Additional measures were included such as the treatment integrity checklist, the Conners’ Global Index and a classroom manageability rating. To
investigate the treatment effects, the authors used an ABA design: one baseline phase followed by one treatment phase and a second baseline phase. The taped amount of inappropriate behaviour per child per minute steadily decreased from a mean frequency of .45 during baseline to .29 during treatment. These rates indicated that the token economy was effective in decreasing inappropriate behaviour.

Boniecki and Moore (2003) developed a token economy to increase class participation in an undergraduate psychology class. Sixty-three students participated in the study, which required 11 weeks to complete and the authors used an ABA design. Baseline data were collected in the first four class meetings by a research assistant who sat at the back of the class. The research assistant recorded the frequency of direct participation, the latency to participate, and non-direct participation for each student. During the baseline phase, the instructor would periodically ask the class questions related to the material and he/she would call upon the students to answer the question in the order in which they raised their hands. The instructor would continue to ask students until the question was answered correctly. If no one raised their hand within 60 seconds after the question then the instructor would give the correct answer. During the next four class meetings, a token economy was implemented by the instructor who informed the class that the first person to answer a question correctly would receive a token. At the end of the class, students could exchange their tokens for one point added to their next exam. The last three class meetings served as a second baseline phase. As hypothesized, the amount of directed and non-directed participation increased during the treatment phase. Students appeared more willing to participate while the token economy was in operation, even though non-directed participation was not reinforced. In addition, students took less time to respond to questions asked by their instructor when the token economy was implemented.

McLaughlin and Malaby (1975) conducted a study where pupils in a grade 5/6 classroom earned points for appropriate classroom behaviours, such as accuracy of performance and remaining seated. Points were deducted for inappropriate behaviours, such as, failing to complete work and inappropriate language. Points could be exchanged for privileges, for example, after-school sports and playing with pets in the classroom. Although the token economy was implemented to increase appropriate behaviours and to decrease inappropriate behaviours, assignment completion and performance accuracy were the only behaviours recorded by the researchers. There were five experimental conditions. First, in variable exchange 1, the token economy was in effect in the class and a variable number of days (m=5) would pass before tokens could be exchanged. In the second condition, letter grade the token economy was withdrawn and the regular classroom management procedures were implemented. Fixed exchange was the third condition in which the token economy was once again implemented but a fixed number of days (5 days) would pass before the tokens could be exchanged. In the fourth condition, completion only, the class remained on the token economy but performance accuracy was not a variable in earning points. The fifth condition, variable exchange 2, was the same as the variable exchange 1 condition. The results showed that the percentage of the class that completed their assignments increased significantly when the token economy was implemented. In addition, performance accuracy rates decreased
during the _completion only_ condition. The results demonstrated that the token economy was responsible for the increases in assignment completion and accuracy rates.

Due to the challenge of coping with inappropriate behaviours displayed by school aged children in the classroom, there is a significant need for behaviour management strategies that have been proven effective through experimental research. It is important to review the literature related to the behaviour management strategy that one attempts to use in order to obtain a general idea of its effectiveness and applicability. This will ensure that potential clients will receive the best treatment available in the psychology field.
Part Two: The Positive Reinforcement Point System (PRPS)

Introduction to the PRPS

The Positive Reinforcement Point System (PRPS) is a token economy that was developed in order to meet the needs of 16 behaviourally challenged adolescents. These adolescents have been admitted to a behaviour program in the public school system due to their inability to manage their behaviour in a regular classroom. The behaviour program is arranged so that eight boys attend in the morning and eight girls attend in the afternoon. The boys leave the behaviour program at lunch to go to their home school, the school in which they are enrolled. Conversely the girls attend their home school in the morning and arrive at the behaviour program for the afternoon. The PRPS is a token economy that can be implemented in the behaviour classroom and can be generalized to the student’s home school. The goals of the PRPS are to increase socially appropriate behaviours and to reinforce these behaviours through the awarding of points and backup reinforcers. The PRPS aims to help the students develop the skills and behaviours necessary to function and manage in a regular classroom. The PRPS focuses on three main areas of behaviour, compliance, respect and not-provoking. Through the use of a points book, communication is facilitated between the behaviour program, the home school and the home settings.

The Seven Basic Components of the PRPS

The components of the PRPS will be described using the format Miltenberger (2004) employed to explain the seven basic components of a token economy.

Component 1: The Behaviours the PRPS Targets

The target behaviours of the PRPS are grouped into three main categories of behaviour, respect, compliance and not-provoking. Respect behaviours include: listening to another person when they are speaking without interrupting, putting one’s hand up to answer or ask a question instead of talking out, respecting other’s belongings by not touching their things without asking, respecting other’s personal space by keeping your hands to yourself, speaking in a polite tone to your peers and adults in authority, and treating others the way you would want to be treated. Compliance behaviours include: finishing all of the class work assigned to you for the day, completing all of the assigned homework and handing it in on time, immediately complying with a request made by an adult in authority, getting your points book filled out by your home school teacher and bringing it back to the behaviour program. Not provoking behaviours include: ignoring a peer who is trying to distract you, ignoring a peer who is behaving inappropriately or acting out, not distracting your peers when they are trying to complete their work, and saying something positive to someone else instead of talking about them behind their backs or calling them names. These target behaviours are listed on the Behaviours and the Point System sheet (see Appendix A) in each student’s points book and on posters.
Component 2: The Tokens Used in the PRPS

The tokens used in the PRPS are points. These points are tracked at the end of the day on a points tracking sheet (see Appendix E) in each student’s points book and on a tracking sheet poster (see Appendix F) that is visible at the front of the room.

Component 3: The Backup Reinforcers Used in the PRPS

There are two types of backup reinforcers, a daily backup reinforcer and perfect day backup reinforcers. The daily backup reinforcer is free time, during which the students have access to the games and computers in the classroom. The amount of free time each student is awarded per day is contingent on the amount of points that they earn. A student has the opportunity to earn up to 60 points a day, and each point is worth 30 seconds of free time. If a student earns 60 points for the day, they receive 30 minutes of free time. The perfect day backup reinforcers include an array of items and activities selected by the students that they earn contingent on obtaining 12 perfect days. A perfect day is defined as earning 60 points for the day. There is a perfect day tracking sheet at the front of the classroom in the form of a basketball court (see Appendix G). There are small basketballs velcroed to the basketball court that represent each student. Each occurrence of a perfect day the students are allowed to move their basketball one space forward toward the basketball net. Once the students manage to get their basketball in the hoop, they have earned the opportunity to select an item from the backup reinforcer list (see Appendix H) posted beside the basketball court. Once the students’ balls have reached the hoop, their balls are placed back on the starting line and they can begin the process of trying to earn their balls in the net again.

Component 4: The Schedule for Token Delivery in the PRPS

A continuous reinforcement schedule is employed in the PRPS. Each occurrence of the target behaviour is verbally praised and at the end of the day each student and the teacher discuss the amount of points the student deserves to earn. If a student can give examples of engaging in the target behaviours and/or the teacher recalls the student engaging in the target behaviours, the student earns 30 points for the half-day that they attended the behaviour program. The other 30 points can be earned during the portion of the same day that the student spends at their home school. The home school teacher awards the points to the student and records the points in the points book. This type of token economy is beneficial because it does not require that the teacher to carries tokens or tangibly reinforce each occurrence of the target behaviours. The latter can be time consuming and impractical in a classroom that is specifically dedicated to the education of behaviourally challenged adolescents. By verbally praising each occurrence of the target behaviour, the students still receive immediate reinforcement. Discussing the awarding of the points at the end of the day allows for the students to give input regarding their behaviour and it promotes self monitoring. A continuous and intermittent
schedule of reinforcement is employed to reward incidences of perfect days. Each occurrence of a perfect day is reinforced by allowing the students to move their basketball one space forward and every twelfth perfect day is reinforced with a backup reinforcer.

**Component 5: The Token Exchange Rate used in the PRPS**

A token exchange rate is the fifth component of a token economy. In the PRPS points can be exchanged for free time at the end of each day. After 12 perfect days, an extra reward is obtained.

**Component 6: A Time and Place for Exchanging the Tokens**

The boys exchange their points at the end of the morning and the girls exchange their points at the end of the afternoon for their free time. The students are expected to sit at their desks until they have discussed with the educational facilitator the amount of points that they deserve to earn. After the discussion, free time is awarded accordingly. A student receives free time contingent on the amount of points they have earned. Just because they do not receive 60 points for the day does not mean they have not earned any points. If a student earns 30 points for the day then they would receive 15 minutes of free time as each earned point is worth 30 seconds of free time. If a student has not earned a perfect day and they do not get the full 30 minutes of free time that is set aside each morning for the boys and each afternoon for the boys, they are required to sit at their desk and complete unfinished work or read independently until it is time for him/her to begin their free time. When the students are participating in their free time they are allowed to be at the location in the classroom that pertains to the activity they have chosen. For example, if a student chose to play cards, they must be sitting at the card table, or if a student chose to go on the computer for their free time, they must be sitting at the computer. When a student has earned 12 perfect days and has successfully put their basketball in the hoop, he/she should approach one of the educational facilitators in the classroom at the beginning of their free time and inform the latter of which backup reinforcer they wish to receive.

**Component 7: The Response Cost in the PRPS**

The seventh component of a token economy, a response cost, is not included in the PRPS. The decision to exclude the response cost component was made by an individual who was instrumental in the development of the PRPS. This individual felt that the students worked hard to earn their points and it was unfair to take points away that had already been earned. If a student behaves in an inappropriate manner, they should be verbally reprimanded and the incident should be considered and discussed during the awarding process of the daily points.
Materials

In order to implement the PRPS an array of materials are required. The first item includes a points book for each student. This book holds two information sheets, the Positive Reinforcement Point System Rules (see Appendix I), a list of appropriate behaviours, several Points Tracking sheets, and several Communication and Reflection sheets (see Appendix J).

Three posters are also required: one poster for compliance, one for respect and one for not-provoking. These posters must list the appropriate behaviours the students are expected to engage in to earn the points for each area of behaviour. The behaviours listed on these posters are the same behaviours recorded on the information sheet in the points book.

Two laminated bristle boards, one for the girls and one for the boys, are needed. These bristle boards are set up in a grid fashion with the student names printed on the left side of the board and 20 days listed along the top. These grids are used to record the amount of points each student has earned in the three areas of behaviour for each day.

Two additional laminated bristle boards are also necessary, one for the boys and one for the girls. These boards are illustrated to look like basketball courts and serve as a tracking poster for perfect days. The students’ names are listed at the left end of the court and individual basketball nets for the students line the right end. In between the student’s names and the basketball nets are 12 velcro pieces. One velcro piece is placed on the basketball net that leads from the left end of the court to the right. Sixteen ping pong balls, one for each student, are spray painted orange to represent basket balls must be prepared. Velcro pieces need to be placed on the sides of each basket ball in order to stick the basketballs on the basketball court.

Step-By-Step Instructions

In order to implement the PRPS effectively there are several steps that should be followed from the beginning of the day at the behaviour program to the end. The following is a step-by-step explanation of how to execute the PRPS.

Prior to Implementation

Each student should receive a points book with the Points System Rules sheet, the Behaviours sheet, multiple Points Tracking sheets and multiple daily Communication and Reflection sheets placed inside. The compliance, respect and not-provoking behaviours posters should be posted together in a visible location in the classroom. The boys and girls points tracking sheet posters and basketball courts should also be posted beside each other in a visible location. The students’ names should be listed in dry erase marker along the left side of the basketball court and the points tracking poster. Individual basketballs for the students should be placed on the starting line on the basketball courts. A short
A survey should be administered to the students prior to the implementation of the PRPS in order to gather information regarding their preferred backup reinforcers (see Appendix K). A list of the approved backup reinforcers should be posted beside the basketball courts.

A letter or email should be developed that describes the PRPS and its components should be sent to the student’s home school teachers so that they are aware of the program. It should be explained that there are information sheets in the front of the points books that the students are required to bring each day that can be referenced and that you are available for any further questions. It should be made clear that the home school teachers are expected to give a number of points earned for the day in each area of behaviour. The number of earned points should be recorded on the Points Tracking Sheet that is reflective of the student’s behaviour for the morning or afternoon. There is an area in which the teacher can write a short message concerning the student’s behaviour on the Communication and Reflection Sheet in the points book. Let the home school teacher know that it would be beneficial if they have time, to briefly discuss with the student their behaviour and the points earned.

Once all of the materials are in place, and each student has received a points book, the educational facilitator should make an overhead copy of the Point System Rules sheet, the Points Tracking sheet and the Communication and Reflection sheet to review with the class. While explaining the point system rules, make sure to point out the posters on the walls and make sure each student fully understands how they are expected to behave in order to earn points. Explain that 30 points can be earned in the home school and will be awarded by their home school teacher while the other 30 points can be earned in the behaviour program. It should also be explained that each point that is earned is worth 30 seconds of free time. A perfect day ought to be defined and the students should know that upon earning a perfect day they are allowed to move their basketball one space forward towards the basketball net.

The Beginning of the day at the Behaviour Program

Upon arrival at the behaviour program, the students should hand in their points book to one of the educational facilitators in the classroom. Once the students have arrived, handed in their points book and taken a seat, a short discussion should be held concerning the amount of points each student has earned at their home school. The classroom teacher or educational facilitator should complete this discussion. The boys will be reporting on the points earned during the previous afternoon and the girls will be reporting on the points earned that morning.

If a student has earned 30 points in the previous afternoon (boys) or 30 points for the morning (girls) at their home school, then a star should be placed on the points tracking poster in the appropriate points recording spot for that day. The star is to remind the educational facilitator that if the student earns 30 points for the day at the behaviour program, they can move their basketball one space forward.
If a student has not received 30 points from their home school teacher, the student should be asked why they did not earn all of their points. If the home school teacher wrote a comment on the Communication and Reflection sheet, this comment should be read and discussed.

If a student has not returned their points book, or has returned it without their home school teacher awarding the points and signing the Communication and Reflection sheet, then the student automatically loses 15 minutes of free time. The reason that 15 minutes of free time is automatically lost for not returning or completing a points book is because each point that is earned is worth 30 seconds of free time. Without a record of the points that were earned at the home school, there is no way to know how many points the student has actually received from their home school teacher and the maximum amount of points they can earn for the day is now 30, rather than 60.

Throughout the day at the Behaviour Program

It is very important to always be watching for the students to engage in the respect, compliance, and not-provoking behaviours. When you see the students behaving in the expected manner, immediately verbally praise them. Make sure to verbally identify the behaviour in which the students engaged in so the reason for the praise is clear. For example, if a student raised his hand to answer a question instead of talking out (a behaviour listed on the respect poster), an educational facilitator could say, “Well done Anne! I really like the way you raised your hand to answer my question instead of talking out, good job.” Another example of verbal praise includes a situation where an educational facilitator overhears a student compliment another student on their drawing (a behaviour listed on the respect poster), an appropriate comment could be, “That was very nice of you to compliment Joe on his work. Make sure to remember this when we go over the points later.” A third example involves a student handing in their points book filled out by their home school teacher (a behaviour listed on the compliance behaviour poster) an educational facilitator might say, “Thank you for getting your points book filled out and handing it in. I will remember this when we discuss your compliance points later.” A final example is when one student is flicking pieces of eraser at another student and the latter student ignores the behaviour. An educational facilitator might say, “I’m really impressed with the way you ignored Tom when he was flicking the eraser at you, well done!” Make sure to smile and make eye contact with the students when you are verbally praising them.

Discussing and Awarding the Points

Forty minutes before the students leave the behaviour program, ask them to put away their work because it is time to discuss the awarding of the points. Before starting, ask the students to look at the three behaviour posters on the wall and to think about how many points they believe they should earn in each area of behaviour. Start the discussion by picking a student to go first who is sitting quietly. Ask the student how many respect points they deserve to earn out of 10 and in increments of two. If the student believes he should earn all of his respect points, ask him to give you examples of when they engaged
in the respect behaviours. The educational facilitator should give specific examples of why or why not she thinks the student should receive full points. If it is determined that the student has behaved appropriately and there were no major respect issues, then award the student with 10 respect points by filling it in on the points tracking poster and in his points book. If it determined that the student does not deserve to earn 10 points, ask his if he thinks he could have tried harder to engage in the respect behaviours and explain to him why he is not receiving full points. For example, if the student repeatedly interrupted the class lesson by speaking out without raising his hand, an educational facilitator might say, “Well Joe, during the class lesson, you interrupted me several times, and when I asked you to put your hand up if you had something to say, you still didn’t listen and continued to interrupt me. With this in mind, how many respect points do you think you deserve to earn?” By asking the student to verbalize how many points he thinks he deserves to earn, you are prompting him to consider his own behaviour and to think critically in terms of how he can improve. If a student refuses to recognize that he does not deserve to earn all of his respect points, explain that you, as the educational facilitator, are making the final decision.

Repeat this process for the other two areas of behaviour, compliance and not-provoking. Keep in mind that if a student does not complete the assigned work for the day, or has not returned his points book, these are behaviours listed on the compliance poster and 10 points in this area have not been earned. Repeat this process for each student and record the earned points for each student on the points tracking poster and in their points book on the Points Tracking sheet. If a student has earned a perfect day, congratulate him and allow him to move his basketball one space forward on the basketball court.

After Awarding the Points

Once the discussion regarding the points is finished, write a comment in each student’s points book pertaining to their day in the program. This comment is meant to give the student’s home school teacher and their parent or guardian a general idea of how their day progressed at the program. Once this comment has been filled in, hand the points book back to the students and ask them to write a short reflection about how they think their day went at the program.

Awarding the Backup Reinforcers

Each point that is earned throughout the day is worth 30 seconds of free time. Depending on how many points each student has earned, some students will be starting their free time before others. The students who immediately begin their free time right away can choose one activity in the classroom to participate in, for example, playing chess, going on the computer or making crafts. Once an activity is chosen, the student must remain in the designated area for the remainder of their free time. The students who have not earned 30 minutes of free time must sit at their desk and work on unfinished assignments or read independently until it is time for them to begin their free time.
Once a student has earned 12 perfect days and has placed his basketball in the hoop, he is permitted to pick a backup reinforcer from the Hoop Rewards list. This reward should be chosen on the day their basketball reaches the hoop. The backup reinforcer should be chosen and awarded at the beginning of his free time. If a backup reinforcer is chosen that cannot be awarded that day, for example a Tim Hortons donut, then the student will be informed that he will receive his reward the next day at the beginning of his free time. After a student has reached the basketball net, his basketball is placed back on the starting line and the 12 perfect day criterion in order to receive a backup reinforcer is once again in place.

**Future Recommendations**

**Where else can the PRPS be implemented?**

It is possible to implement the PRPS in other settings than a behaviour classroom. For example, it would be possible to implement the PRPS in a regular classroom, in summer camp for school aged children or in a group home. It would be possible to implement the PRPS virtually in any setting where there are school aged children and a there is need for appropriate behaviour to be increased and negative behaviour to be decreased. Certain components and materials may need to be modified in order to fit these specific populations and settings.

**How can I Modify the PRPS to fit a specific population?**

If the changes are deemed necessary, it would be beneficial to go over the compliance, respect and not-provoking behaviours and remove or add behaviours that are relevant to the classroom. For example, if “keeping your hands to yourself” is not an issue, than that behaviour should be removed from the list. If getting ready for recess in a timely fashion is a behaviour you wish to target, add it to the compliance behaviours lists.

Most of the behaviours that would be targeted in a classroom setting can fit under one of the behaviour categories, respect, compliance and not-provoking. If you feel that it is not relevant to categorize the behaviours in the three groups, then post a single listing of behaviours under a different heading, for example “Appropriate Classroom Behaviours” or “Behaviours that will Earn You Points”.

It may not be feasible to have a full discussion regarding the awarding of the points at the end of the day in a classroom of 30 students as it would take too long. The PRPS could be modified so that the students have more responsibility in keeping track of their own behaviours and the behaviours of their peers. Weekly discussion could be held at the end of the week on Friday and points awarded on a weekly basis rather than a daily basis.

In addition to these changes, creating the Perfect Day Tracking Poster to resemble a basketball net can be easily modified to appeal to any group. A basketball court with
basketball nets and balls were chosen in the original implementation of the PRPS because the students enjoyed basketball and found it very reinforcing. If your class generally enjoys an adventure theme, the poster could be designed to look like a treasure map with movable pirates to represent the students moving along the trail, or an “under the sea” scene with little fish representing the student swimming across the poster.

The PRPS can be modified to appeal to any age group and almost every population. The seven basic components can be changed so that the specific needs of any group are met. The idea is to make the PRPS a fun, visual and enjoyable experience for everyone.
Glossary of Terms

**A-B design:** A research design consisting of one baseline phase and one treatment phase. The A-B design is not a true experimental design because the treatment condition is not replicated. It is used mostly to document behaviour in clinical practice (Miltenberger, 2004).

**ABA design:** A research design consisting of a baseline phase and a treatment phase followed by a withdrawal of the treatment and a second baseline phase. This design is used to show the relationship between the intervention that was implemented and the behavior change (Miltenberger, 2004).

**Backup reinforcer:** Reinforcers used in a token economy that is exchangeable for a specified number of tokens (Miltenberger, 2004).

**Baseline:** The condition or phase in which no treatment is implemented (Miltenberger, 2004).

**Bristle Board:** A heavy weight paper used for illustration and art purposes. It comes in different sizes and colours.

**Contingent:** The awarding of a reinforcer or a reward is dependant on meeting certain conditions.

**Deduct:** To take away, separate or remove (Webster’s New Twentieth Century Dictionary, p. 474)

**Deviant behaviour:** Behaviour that is inconsistent with the society’s views of acceptable and socially appropriate actions.

**Educational facilitator:** Individuals employed within the school system that assist in the education of children and young adults. For example, teachers, educational assistants (EAs), school counselors, guidance counselors, placement students, tutors and volunteers.

**Empirical support:** Relying or based solely on experiments or experience, research based support (Webster’s New Twentieth Century Dictionary, p. 594).
**Interobserver reliability:** The event in which two observers independently observe and record a person’s behaviour and compare their recorded observations to show a degree of agreement between the two records (Miltenberger, 2004).

**Reinforcer:** An activity, stimulus or object that when provided contingent on the occurrence of a behaviour increases the likelihood that the behaviour will occur again (Miltenberger, 2004).

**Reinforcement:** The process of proving a reinforcer contingent on the occurrence of behaviour that increases the probability of the behaviour occurring again in the future.

**Satiated:** To fill or satisfy to the appetite completely, to gratify with more than enough (Webster’s New Twentieth Century Dictionary, p. 1610). In behavioural terms, when a person is satiated with a reinforcer they have had enough of it and it will no longer hold the same reinforcing qualities as is did before the person become satiated with it. Basically it has been overused and the person no longer wishes to have or earn it.

**Tangible:** Something that can be touched, that can be felt by touch that has actual form and substance (Webster’s New Twentieth Century Dictionary, p. 1863).

**Verbal praise:** Telling a person with words that they have done a good job, or completed a task well. It is verbally giving another person a compliment.

**Visual prompt:** A picture, object or display that is meant to elicit a desired response.
References


Appendix A: Behaviour and the Point System

Intermediate West Learning Centre

Behaviour and the Point System

There are three main areas of Behaviour included in this Point System.

1. Respect Behaviours
   Behaviours that show I am being respectful are:
   - Listening to another person when they are speaking without interrupting.
   - Putting my hand up to answer or ask a question instead of talking out.
   - Respecting other’s belongings by not touching their things without asking.
   - Respecting other’s personal space by keeping my hands to myself.
   - Speaking in a polite tone to my peers and adults in authority.
   - Treating others the way I would want to be treated.

2. Compliance Behaviours
   Behaviours that show I am complying are:
   - Finishing all of the class work assigned to me for the day.
   - Completing all of my homework and handing it in on time.
   - Immediately complying with a request made by an adult in authority.
   - Getting my points book filled out by my home school teacher and bringing it back to
     the Intermediate West Program.

3. Not-provoking Behaviours
   Behaviours that show I am not-provoking are:
   - Ignoring a peer who is trying to distract me.
   - Ignoring a peer who is behaving inappropriately or acting out.
   - Not distracting peers when they are trying to complete their work.
   - Saying something positive to someone else instead of talking about them behind their
     back or calling them names.

Keep Smiling
Appendix B: Example of a Compliance Behaviours Poster

Compliance Behaviours

These behaviours include:

1) Finishing all of the class work assigned to me for the day.

2) Completing all of my homework and handing it in on time.

3) Immediately complying with a request made by an adult in authority.

4) Getting my points book filled out and bringing it back to the behaviour program.
Appendix C: Example of a Respect Behaviours Poster

Respect Behaviours

These behaviours include:

1) Listening to another person when they are speaking without interrupting.

2) Putting my hand up to answer or ask a question instead of talking out.

3) Respecting other’s belongings by not touching their things without asking.

4) Respecting other’s personal space by keeping my hands to myself.

5) Speaking in a polite tone to my peers and adults in authority.

6) Treating others the way I would want to be treated.
Appendix D: Example of a Not Provoking Behaviours Poster

Not Provoking Behaviours

These Behaviours include:

1) Ignoring a peer who is trying to distract me.

2) Ignoring a peer who is behaving inappropriately or acting out.

3) Not distracting my peers when they are trying to complete their work.

4) Saying something positive to someone else instead of talking about them behind their backs or calling them names.
## Points Tracking Sheet

**Student:** ________________  **Month:** ________________

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Appendix F: Example of a Points Tracking Poster

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Appendix G: Example of a Basketball Court Perfect Day Poster
Appendix H: Example of a Student Selected Back-up Reinforcer List

**Hoop Rewards**

When you successfully get your basketball in the hoop, you can choose one of these rewards:

1) Ten minutes of extra free time  
2) Pop corn for snack  
3) Guaranteed free time on the Smart Board  
4) Guaranteed free time on the computer  
5) Five free draw tickets  
6) One Tim Hortons donut  
7) One Tim Hortons muffin  
8) Listen to music during free time  
9) One item from the reward box
Appendix I: Point System Rules

Intermediate West Learning Centre

Point System Rules

- It is your job to behave appropriately. A list of appropriate behaviours is on the orange sheet located in your points book, and posted on your classroom wall.

- You have the opportunity to earn 10 points in each area of behaviour for the morning, and 10 points in each area of behaviour for the afternoon, which means you can earn up to 60 points a day.

- Before your points are awarded each day at the Intermediate West Program, you will have the opportunity to discuss with your classroom teacher the amount of points you feel you deserve to earn in each area of behaviour. Points are earned in increments of two (e.g. 2, 4, 6, 8 or 10).

- Your classroom teacher will make the final decision on how many points you will earn and together you will discuss why you are earning that amount of points.

- The points are tracked on a big sheet of paper at the front of the room so that you can check how many points you have been earning, and it will also be tracked in your points book.

- You are required to bring your points book to your home school to get filled out everyday.

- Each point you earn is worth 30 seconds of free time which you will have the opportunity to participate in at the end of your day in the Intermediate West Program.

- There is a Perfect Day tracking sheet that is posted in the classroom where each student will have a basketball that represents him or herself. A perfect day means that you earned 60 points for the day. The basketballs will be placed at one end of the basketball court and each time that you get a perfect day, you will be allowed to move your basketball one space forward, towards the basketball net. There will be a special prize for those who get their ball in the hoop by the date specified by your teacher.
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Appendix K: Example Student Survey for Back-up Reinforcer Selection

**Student Survey**

Name: ___________________________ Date: ___________________________

If you could receive any item or activity as a reward for getting 12 perfect days what would you choose? Your choices will be considered by your classroom teacher and they will have to be approved before becoming options on the reward list.

My top five choices are:

1. 

2. 

3. 

4. 

5.
Appendix L: PRPS Self Report Questionnaire

Positive Reinforcement Point System (PRPS) Evaluation Questionnaire

Please circle the number on the Likert scale that best represents your answer.
1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree

Part One: The Treatment Manual

1. The treatment manual was easy to read.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

2. The author used language in the treatment manual that was understandable.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

3. While reading the manual, I was not confused about what the author was saying.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

4. The manual is well organized, clear, concise and easy to follow.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

5. I am satisfied with how the manual is written.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

Suggestions for improvement:

Part Two: The Positive Reinforcement Point System (PRPS)

1. I feel comfortable enough to implement the PRPS after reading the treatment manual.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

2. The PRPS can easily be implemented in any classroom within the public school system.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

3. I feel that the PRPS does not require too much of my time to implement in the classroom.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

4. I feel that the PRPS meets the needs of children in the school system today.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

5. I feel that the PRPS meets my needs as an educational facilitator.
   Strongly Disagree 1…..2…..3…..4…..5 Strongly Agree

Suggestions for improvement: