

Learning Task 2: Article Critique

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Article #1

Summary

A token economy (TE) is one of a many recommended interventions found in classroom settings, based on the well-established principles of reinforcement described by Skinner (1931). A Token Economy has historically been considered a best-practices behavior management strategy for use in schools (Soares, Harrison, Vannest, & McClelland, 2016). The research by Carnett et al. (2014) provides a comparison of the effects of a token economy intervention that either did or did not include the perseverative interests of a 7-year-old boy with autism. The purpose of their study was to examine the tokens themselves and compare the effects of a token economy intervention that either did or did not make use of tokens that reflected a child's perseverative interest.

Research Methodology

The two token economy interventions were compared using alternating treatments with an initial baseline design. The sample included was a single-case design, where Troy served as his own control group. This small sample size affects the external validity of the study results, limiting the degree to which the results can be generalized to larger populations of students. During the study, Troy would receive a token contingent on 20-s of consecutive on-task behavior. Backup reinforcers were obtained for every 10 tokens. The researchers provided a strong operational definition of the challenging behavior as screaming, falling, and/or lying on the ground. On-task behavior was defined as sitting with buttocks on the ground, head oriented toward the teacher, and having an absence of challenging behavior (Carnett et al., 2014). The study found that during the alternating

treatment phase, both token economy interventions resulted in an increase in on-task behavior relative to baseline. However, Troy was on-task more often during the perseverative interest token economy condition than in the token economy condition that did not involve tokens reflecting his perseverative interest (Carnett et al., 2014).

Data Collection

Data was collected on Troy's challenging behavior and on-task behavior. To collect their data, a time sampling with 30s partial interval recording was used to measure off-task behavior during 10 minutes of the class period (Carnett et al., 2014). Although the study does a thorough job of explaining their data collection methods, it does not reflect a real classroom environment and therefore puts into question the external validity of the study results. The researcher was providing the token for every 20 seconds of consecutive on-task behaviour. While this worked for their data collection purposes, to recreate the same environment in a general education classroom would be challenging. The researcher also reviewed on task behaviors with Troy using a visual support prior to the start of all sessions (Carnett et al., 2014). This does not reflect an inclusion classroom and therefore causes concern for the ability to re-create the study effects outside of the parameters of the study. Troy's behavior during the group reading activity in the inclusion classroom was measured in one baseline session because his behaviour became too disruptive for them to continue to collect baseline data during the other sessions (Carnett et al., 2014). Because of this there is limited data available as to his previous state in order to measure it against the effects of the intervention.

Ethical concerns

One ethical concern with this study is with regards to the age of the participant. A young child may clearly lack capacity to adequately understand all that is necessary for the provision of informed consent and the lack of capacity is a consequence of the stage of developmental maturity of the child (Sally, 2014). The principle of autonomy infers that an individual has the right to freely decide to participate in a research study with full knowledge of what is being investigated (Sally, 2014). It is unlikely that a seven-year old with autism would likely comprehend what it meant to participate in the study and therefore his informed consent would be the responsibility of his parents. The principle of non-maleficence was being respected because even though the study required that one of the token economy systems not reflect his interests, this would not cause him harm. The researchers seemed to have lapsed in ethical judgment with regards to the principles of confidentiality and anonymity. There was nothing indicating that the researchers changed the name of the boy participating in the study as he was referred to as Troy throughout the article. They also disclosed things such as his BASC scores and his scores on the Childhood Autism Rating Scale scores, which, if his identity was not kept confidential could be an invasion of his rights to privacy and cause harm.

Article #2

Summary

Dalton, Martella and Marchand-Martella (1999) utilized a self-management program in order to decrease the off-task behaviour of two adolescent male students with learning disabilities and attention deficits in the general education classroom. The self-management program included three components—a checklist, a behavior rating scale, and a self-monitoring form (Dalton et al., 1999). The researchers found that following the

implementation of the self-management program, the student's off-task behavior decreased. Furthermore, not only did the teachers see a decrease in off-task behavior, they also noticed an improvement in academic performance and an increase in work productivity (Dalton et al., 1999).

Sample

Participants in the study were two eighth grade Caucasian males, ages fourteen and fifteen years old. Both were diagnosed with a learning disability in the area of writing and both were performing significantly below grade level in writing and math. These students were selected because they were identified as having disruptive and off-task behaviors by two of their teachers (Dalton et al., 1999). The sample size for the study is small, and therefore poses a threat to the external validity of the study. The selection of the participants could be critiqued for being less rigorous than a random selection of participants, and due to the specific nature of their difficulties, it would prove difficult to generalize these findings to other individuals. The researchers provided a strong operational definition for off-task behaviours including not being in their seat, talking with others, interrupting others, not working on assigned task, such as scribbling or doodling instead of writing, reading a magazine instead of the text, and engaging in bodily movements unrelated and/or interfering with assigned task (Dalton et al., 1999).

Study Design

The study uses a multiple baseline design, which by definition means that the researcher should utilize a varying time schedule in order to determine if the application of treatment is truly influencing the behaviour (Dalton et al., 1999). The study utilized 22

sessions, however, a period of only 4 days of maintenance sessions were used (Dalton et al., 1999). The maintenance period was done over 4 days on the last week of the school year, where one might assume that the academic demands and teacher expectations might differ on that particular week in comparison to the rest of the school year. A longer maintenance period would provide stronger evidence for the effects of the intervention.

Instrumentation

The instrumentation in this study was challenging to understand. The rating scales and checklists used were not standardized and the students had to rely on using the classroom clock to self-monitor (Dalton et al., 1999). While the researchers state that the teachers were not informed of the design of the investigation, it could be argued that they would be aware of when the students were self-monitoring due to the folder containing the questionnaires being kept on their desks. After completing their own self-evaluation, the students were then required to ask their teacher to evaluate their behavior on the same scale and have a brief discussion (Dalton et al., 1999). The discussion component of the treatment brings into question the internal validity of the test measure because the study could be measuring the effects of this extra teacher attention and debriefing sessions, rather than the self-monitoring program itself. Because the evaluations were done by different teachers and across different settings, in order to assess the scorer reliability, two independent trained coders observed the baseline sessions as well as videos of the sessions. The mean agreement for the dependent variables was 98.5%, demonstrating that there was high consistency among the data that was collected, demonstrating strong interobserver reliability (Dalton et al., 1999). Another issue with regards to the validity of the study is that later on throughout the discussion portion of the article, it is mentioned

that the students were given points on a daily report cards for when they correctly filled out the checklist, self-monitored, and rated their own behavior. If the students received a total of 10 points for each of 4 consecutive days, they had the choice of a candy bar, a soda pop, or extra credit points (Dalton et al., 1999). The incentive program is not given much weight in the researchers discussion of the intervention effectiveness, when it could be acting as the motivating factor for the change in behaviour. Therefore the study is possibly examining the effectiveness of the token economy system of the points for good behaviour being redeemed for reinforcers. Furthermore, the study utilizes the subjective opinions of the teachers, which could be problematic for achieving reliable results.

Ethical concerns

The legislations outlined by Scally (2014) describe that children under the age of 16 years “lack sufficient capacity to take sole responsibility for a decision to volunteer as a research participant and parental consent is mandatory” (p 202). One area of ethical concern that I see with this particular study is with regards to confidentiality. The most basic principle of anonymity refers to simply removing or obscuring the names of the participants. The researchers in this study referred to the participants by their names, Peter and Brian, throughout the article and there was no indication that their names had been changed. Assuming that the participant’s names had not been changed, identifying them as students with diagnosed learning disabilities and disclosing their IQ scores could surely be interpreted as causing harm. It is difficult to know whether the young men were able to fully understand the impacts of the research and provide truly informed consent. This also relates to respecting the rights of the participants and their right to withdraw from the study. A student, who is being told to do this by researchers as well as by their

teachers, would likely not understand their rights in the situation as to their voluntary participation and ability to withdraw from the research if they so chose.

References

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