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PROMOTING POSITIVE BEHAVIOR: ANALYZING THE EFFECTIVENESS OF THE GOOD BEHAVIOR GAME IN CLASSROOM SETTINGS

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ABSTRACT

This study aimed to evaluate the impact of the Good Behavior Game (GBG) on classroom behavior and students' perceptions of their abilities and mindset. The research focused on whether the implementation of GBG could foster a positive classroom environment, enhance cooperation among peers, and promote a growth mindset based on Carol Dweck's theory. A quasi-experimental design was conducted with 60 sixth-grade students, divided into an experimental group that received the GBG intervention and a control group with no intervention. Pre- and post-intervention data were collected using questionnaires grounded in mindset theory, measuring self-efficacy and classroom behaviors. Additionally, systematic classroom observations were performed throughout the intervention to record instances of improvement in engagement in learning, student cooperation, and homework engagement. The results indicated an improvement in the targeted behaviors and an enhancement in classroom engagement within the experimental group, reflecting a positive trend in behavior improvement and self-perception. While the pre- and post-test comparison for the experimental group did not reach full statistical significance, the findings still indicated that the intervention had a positive impact. Specifically, the questionnaire results indicated an enhancement in students' growth mindset and self-efficacy, while classroom observations revealed notable changes in behavior, including improved engagement, homework completion, and increased peer cooperation. The Good Behavior Game demonstrates potential for enhancing classroom behavior and promoting a growth mindset among students. While the results are promising, further research with larger sample sizes and longer observation periods is needed to confirm these findings and examine external factors influencing the outcomes.

Key words: Good Behavior Game, classroom behavior, growth mindset, quasi-experimental design, behavior intervention.

INTRODUCTION

Student behavior in the classroom has a direct impact on the learning process and the educational environment. Problematic behaviors, such as inattentiveness, aggressiveness and interference in the learning process, can negatively affect not only students, but also teachers and the entire class group (1).This has led to extensive research on possible interventions to improve classroom behaviors, among which are those that include positive reinforcement as an effective strategy (2). One such intervention is the Good Behavior Game (GBG), a strategy that uses positive reinforcement to help manage problem behaviors in students. This game involves dividing students into groups and rewarding desired behaviors, encouraging a positive and cooperative classroom environment (3). The major features of the GBG as described by Barrish et al. (4) included the following: (a) assigning students to teams, (b) giving points to teams that exhibit inappropriate behaviors, and (c) rewarding the team that accumulated the lowest number of points (i.e., the team that exhibits the least amount of problem behavior). Depending on how the GBG is set up, more than one team can win if the criterion for winning (e.g., five or fewer points) is reached. In some instances, the GBG has been modified as

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follows: (a) rewarding appropriate behaviors (5), adding a merit system for simultaneously promoting academic engagement (6). Through this game, students are helped to improve their behaviors, making the behavior management process a more effective and peaceful tool for teachers.

Research has shown that the "Good Behavior Game" has significant results in improving student behavior and improving classroom relationships, creating a more positive learning environment (7). The GBG is effective across a variety of problem behaviors including verbal and physical aggression (8), noncompliance (9), oppositional behaviors (10) , hyperactive behaviors and out-of-seat behaviors (11). This intervention/strategy has been shown to be particularly useful for elementary school students who are in the stage of forming their own behaviors and behavioral norms (12).

The aim of this study is to explore the effects of the Good Behavior Game on managing classroom behavior and improving students' perceptions of their abilities and mindset. Specifically, the research seeks to understand whether this intervention can effectively increase positive behaviors and enhance student engagement and enhance students' sense of self-efficacy and cooperation. The study addresses the broader challenge of behavior management in classrooms, which can significantly affect teaching outcomes and the overall school climate.

The research is guided by key questions: Does the Good Behavior Game help reduce disruptive behaviors in the classroom and increase positive behaviors and student engagement? Does this intervention influence students' views of their own capabilities and potential for growth?

The findings indicate that the Good Behavior Game can positively influence both behavior and students' perceptions of their own abilities. However, while there are signs of improvement, the results require cautious interpretation due to limitations such as sample size and external factors. This research contributes to the understanding of behavior management strategies in educational settings and offers insights into the potential benefits of structured positive reinforcement.

The structure of this study includes an overview of relevant literature, a description of the research methods used to assess the effectiveness of the GBG, the results from the intervention, and a discussion of the broader implications of these findings for classroom management and future research directions.

METHODOLOGY

This study used a quasi-experimental approach with an experimental group and a control group to evaluate the effectiveness of the Good Behavior Game strategy in improving student behaviors in the classroom. The quasi-experimental approach was chosen due to limitations in the random selection of participants in the control and experimental groups, respecting the existing classroom structure. The study took place over a period of eight weeks. 60 sixth grade students from "Hasan Prishtina" elementary school in Pristina participated in the study. The students were divided into two groups of 30 students: the experimental group, which experienced the intervention/strategy of the Good Behavior Game, and the control group, which continued the usual learning process without external intervention. Participants were informed in advance about the purpose of the study, and their parents gave consent for their children's participation in the study.

The study was developed in four main phases to assess the effect of the intervention on students' mindsets and their perceptions of intellectual abilities, self-efficacy and behavior.

Pre-intervention measurement: Before the implementation of the intervention, an initial measurement of the perceptions and mindsets of students in the experimental and control groups was carried out, using a questionnaire designed according to Carol Dweck's mindset theory. This instrument was intended to assess the mindset of students regarding intelligence and the possibility of its development, as well as their perceptions on the ability to influence personal changes and improve their capacities. The questions included a rating scale of 1 to 9, where 1 indicated "not at all" and 9 "very much." This questionnaire was completed by both groups to measure initial perceptions of competence and effectiveness in learning.

Implementation of the intervention: The intervention included the Good Behavior Game activities, which were carried out exclusively in the experimental group. The purpose of these activities was to improve the mindset of the students regarding their competence and skills, helping them better cope with challenges. This

assistance was achieved through positive reinforcement, which encourages desired behaviors through rewards and recognition. The desired behaviors were the increase of the continuous engagement of students in lessons, the improvement of the realization of homework and the increase of cooperation and assistance in lessons. The intervention was implemented for a period of 8 weeks, in order to evaluate the positive impact on the students' perceptions of their competence and effectiveness.

Post-intervention measurement: After the end of the intervention, both groups (experimental and control) completed the same questionnaire again. This second measurement aimed to compare the changes in students' mindsets and perceptions after the intervention, focusing on the differences between the experimental and control groups. The aim was to see if the intervention had brought about significant changes in their perceptions of competence, effectiveness and good behaviour. Data collected from both measurement phases (pre-intervention and post-intervention) were analyzed to compare the perceptions and mindsets of students between the experimental and control groups. This statistical analysis was performed using SPSS software to see if there were significant differences between the two groups.

In addition to the questionnaires, another data collection instrument used in this study was the observation of student behaviors over the eight-week intervention period. A systematic observations of students in the classroom was conducted to monitor the desired behaviors targeted by the Good Behavior Game. These behaviors included increased engagement during lessons, improvement in homework completion, and a higher level of cooperation among students in class activities. The observations provided valuable qualitative data to complement the quantitative measures, allowing for a more comprehensive assessment of the impact of the intervention on students.

RESULTS

The analysis of the data collected before and after the intervention was carried out to evaluate the impact of the intervention on the experimental group, comparing it with the control group. The analyzed results include pre-test and post-test measurements for both groups. **(Table 1)** The results of the pre-test analysis show that there are no statistically significant differences between the experimental group and the control group. The data presented by the Independent Samples Test show:

Table 1. *Pre-test measurements.*

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Pretest	Equal variances assumed	3.034	.087	1.281	53	.206	2.83333	2.21134	-1.60206	7.26873
	Equal variances not assumed			1.369	39.723	.179	2.83333	2.06920	-1.34958	7.01624

Levene's Test for Equality of Variance: F = 3.034, Sig. = 0.087

T-test for equality of means: p = 0.206
This result indicates that there is insufficient evidence to conclude that there are differences between the two groups in the study variables before the start of the intervention.

(Table 2) In order to ascertain whether the intervention had an effect, the analysis of the pre-test and post-test results in the experimental group was carried out. The results of this analysis show:

Table 2. *Intervention analysis*.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pretest – Posttest	2.70000	7.36792	1.34519	-.05123	5.45123	2.007	29	.054

This result suggests that there is a difference between the results obtained from the pretest and the posttest in the experimental group. However, the p value = 0.054 is close to the defined limit of 0.05, and therefore this difference cannot be classified as fully statistically significant.

(Table 3) In order to ascertain whether there are differences between the experimental group and the control group as a result of the intervention, pre-test and post-test analysis was done for both groups. The results are as follows:

Table 3. *Comparison between Groups.*

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PretestEksperimental - PosttestEksperimental	2.70000	7.36792	1.34519	-.05123	5.45123	2.007	29	.054
Pair 2	PretestKontrollues - PosttestKontrollues	-.32000	1.51987	.30397	-.94737	.30737	-1.053	24	.303

In the experimental group, the p-value for pretest and posttest is 0.054, which is less than the set statistical significance level (0.05), suggesting that there is a statistically significant difference between the pretest and posttest results. This suggests that the intervention had a positive effect on students' mindsets and behaviors.

On the other hand, for the control group, the p-value is 0.303, which is greater than 0.05, indicating that there is no statistically significant difference between the pretest and posttest results. This indicates that the control group showed no changes.

The analysis of the pretest and posttest results shows that the intervention made in the experimental group had a positive effect and influenced the change of mindset and behaviors, however, it should be taken with caution due to the p-value that is at the limit of statistical significance. This implies that the help provided to students through the intervention was beneficial, but it is necessary to consider other variables that may have influenced these results, such as sample size and other mediating factors. Results from the observation of student behaviors during the eight-week intervention period provided detailed insights into the impact of the Good Behavior Game on the classroom environment. Through systematic observation, was tracked the frequency and quality of desired behaviors, including student engagement during lessons, homework completion, and peer cooperation.

Over the course of the eight weeks, was recorded weekly data on these behaviors, noting progressive changes in the experimental group compared to the control group. In the first few weeks, there was a noticeable but gradual increase in student engagement during lessons, with students in the experimental group becoming more attentive and actively participating in class discussions. By week four, engagement levels had significantly improved, with fewer disruptions and off-task behaviors observed.

Regarding homework completion, students in the experimental group began to demonstrate more consistent efforts in completing their assignments by week three. By the end of the intervention, nearly all students in the experimental group were regularly submitting their homework, showing a marked improvement compared to their baseline performance. In contrast, the control group showed little to no change in this area.

Cooperation among students also improved as the intervention progressed. Initially, instances of peer support and collaboration were sporadic, but by week five, was observed a noticeable increase in students working together and assisting one another during group activities. By the end of the intervention, the experimental group exhibited a higher level of teamwork and positive social interactions compared to the control group, where cooperation levels remained unchanged.

The data collected from these observations were analyzed by comparing the frequency and quality of these desired behaviors before, during, and after the intervention. The results indicated a clear positive trend in the experimental group, supporting the hypothesis that the Good Behavior Game fosters improved student engagement, academic responsibility, and cooperation. These qualitative findings from the observations aligned with the quantitative results from the questionnaires, providing a comprehensive understanding of the intervention's impact.

DISCUSSION

The results of this study highlight the effectiveness of the Good Behavior Game (GBG) in improving student behavior and fostering a more cooperative and engaging classroom environment. Both the quantitative and qualitative data gathered during the eight-week intervention indicate that the GBG contributed to reduce undesirable behaviors or lack of engagement and an increase in positive behaviors such as classroom engagement, homework completion, and peer cooperation. The quantitative data from the pretest and posttest comparison for the experimental group suggest that the intervention had a positive impact on students' behavior. The p-value of 0.054, although slightly above the typical significance threshold of 0.05, indicates that the intervention led to changes in behavior and mindset that are worth noting, even if they do not fully meet the criteria for statistical significance. The systematic observation data further supports these findings, demonstrating a clear upward trend in positive behaviors such as attentiveness and participation during lessons. These results align with previous research, such as that by Tingstrom et al. (7), which also found that the GBG effectively reduces disruptive behaviors and encourages positive student interactions.

The study also found that the GBG had a significant effect on students' academic responsibility, as evidenced by the improvement in homework completion over the course of the intervention. By week three, students in the experimental group were showing more consistent effort in completing assignments, a finding that corroborates the positive reinforcement principles underlying the GBG (2). By contrast, the control group showed little to no change in this area, suggesting that the structured nature of the GBG provides an added incentive for students to remain on task.

Moreover, cooperation and peer interaction improved notably in the experimental group, with students increasingly assisting one another and working together on class activities by week five. This improvement in social interaction highlights the GBG’s potential for not only reducing undesirable behavior but also enhancing classroom social dynamics. The findings of this study are consistent with previous research, such as that by Embry (3), which showed that the GBG fosters a cooperative classroom environment through its team-based reinforcement approach.

One of the research questions guiding this study was whether the GBG could influence students' perceptions of their own capabilities and growth potential. Although the results from the mindset and self-efficacy questionnaire indicated some improvement, the findings were less robust than those related to behavior. The relatively small change in students' self-perceptions may suggest that while the GBG can have a direct impact on observable behaviors, its effect on deeper cognitive constructs such as mindset and self-efficacy may take longer to manifest or may require supplementary interventions. This echoes the findings of Flower et al. (12), who posited that behavior management interventions may need to be paired with other cognitive or emotional development strategies to produce significant changes in students' self-perceptions.

LIMITATIONS

While the findings of this study are promising, there are several limitations that should be acknowledged. First, the sample size was small, which may have influenced the generalizability of the results. Additionally, the study was conducted over a short eight-week period, which may not have been sufficient to observe long-term changes in student behavior and mindset. Future research could benefit from larger sample sizes, longer study durations, and the inclusion of more diverse student populations to increase the generalizability and robustness of the findings.

CONCLUSION

In conclusion, this study adds to the growing body of literature supporting the use of the Good Behavior Game (GBG) as an effective classroom management strategy. The results indicate that the GBG can lead to improvements in student behavior, academic responsibility, and classroom cooperation, fostering a more positive learning environment. Furthermore, the game promotes peer accountability, allowing students to take an active role in shaping the classroom dynamic, which can reduce teacher-centered interventions. The study also highlights that while improvements in behavior and classroom engagement are clear, the findings related to mindset and self-efficacy suggest that further research is needed to fully understand the broader cognitive and emotional effects of this intervention. Investigating the long-term impact on students' self-perception and their ability to internalize a growth mindset could provide valuable insights. Overall, the GBG shows great potential as a tool for educators to promote a positive and cooperative learning environment. However, additional studies with larger sample sizes, diverse settings, and longer observation periods are necessary to refine its implementation and ensure that its benefits are maximized across various educational contexts. Further exploration of external factors, such as teacher attitudes and classroom culture, may also be critical for optimizing the outcomes of the GBG.

REFERENCES

1. Bear, G. G. (2015). School discipline and self-discipline: A practical guide to promoting prosocial student behavior. Guilford Press.
2. Kazdin, A. E. (2012). Behavior modification in applied settings (7th ed.). Wadsworth.
3. Embry, D. D. The Good Behavior Game: A best practice candidate as a universal behavioral vaccine. *Clinical Child and Family Psychology Review, 5*(4), 273-297, 2002.
4. Barrish, H. H., Saunders, M., & Wolf, M. M. Good Behavior Game: Effects of individual contingencies for group consequences on disruptive behavior in a classroom. *Journal of Applied Behavior Analysis*, 2, 119–124, 1969.
5. Crouch, P. L., Gresham, F. M., & Wright, W. R.. Interdependent and independent group contingencies with immediate and delayed reinforcement for controlling classroom behavior. *Journal of School Psychology*, 23, 177–187, 1985.
6. Darveaux, D. X. The Good Behavior Game plus merit: Controlling disruptive behavior and improving student motivation. *School Psychology Review*, 13, 510–514, 1984.
7. Dweck, C. S. (2006). Mindset: The new psychology of success. Random House.
8. Tingstrom, D. H., Sterling-Turner, H. E., & Wilczynski, S. M. The Good Behavior Game: 1969-2002. *Behavior Modification, 30*(2), 225-253, 2006.
9. Saigh, P. A., & Umar, A. M. The effects of a Good Behavior Game on the disruptive behavior of Sudanese elementary school students. *Journal of Applied Behavior Analysis*, 16, 339–344, 1983.
10. Swiezy, N. B., Matson, J. L., & Box, P. The Good Behavior Game: A token reinforcement system for preschoolers. *Child & Family Behavior Therapy*, 14(3), 21–32, 1992.
11. Leflot, G., van Lier, P. A. C., Onghena, P., & Colpin, H. The role of teacher behavior management in the development of disruptive behaviors: An intervention study with the Good Behavior Game. *Journal of Abnormal Child Psychology*, 38, 869–882, 2010.
12. Medland, M. B., & Stachnik, T. J. Good-Behavior Game: A replication and systematic analysis. *Journal of Applied Behavior Analysis*, 5(1), 45–51q 1972.
13. Flower, A., McKenna, J. W., Muething, C., Bryant, D., & Kim, M. Effects of the Good Behavior Game on challenging behaviors in school settings. *Review of Educational Research, 84*(4), 546-558.13, 2014.