

Effects of the Beanfee token economy software on students' persistent problem behavior and lack of academic engagement: Two separate studies

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These two separate studies with multiple baseline design across participants examined the effects of individualized token reinforcement systems conducted through the Beanfee software, on persistent behavioral problems of elementary school students. In the first study, the participants were four boys in the second and fourth grades. In the second study, there were four participants in the fifth to seventh grade, three boys and one girl. Individualized Beanfee programs were designed in both studies for each participant in collaboration with their parents and primary teachers. Information from the teachers was used to set behavioral goals according to classroom rules and expectations. During academic lessons, teachers assessed and gave feedback on participants' behavior at the end of each lesson through the Beanfee software, where participants also assessed their own behavior. Reaching set goals led to participants receiving tokens, „beans“, which they could use to purchase rewards in the Beanstore within the Beanfee program. Parents were notified through the Beanfee software and provided the rewards that participants had purchased. In the first study, intervention for each participant lasted 4-6 weeks. Problem behavior was measured with a partial interval recording, and academic engagement with a whole interval recording. Results showed that disruptive behavior decreased 66.9% on average and academic engagement increased 150% on average following Beanfee intervention. In the second study, disruptive behavior was measured with frequency recording, and academic engagement was measured with duration recording. Results showed there was a 90% decrease in disruptive behavior and a 349% increase in academic engagement overall after the intervention. These studies' results indicate that individualized Beanfee token reinforcement systems, implemented through collaboration of teachers, students, and parents, can reduce persistent disruptive behavior and promote academic engagement for students in general education classrooms.