NASET ADHD SERIES

Part # 18 - Responses to Positive Versus Negative Interventions to Disruptive Classroom Behavior in a Student with Attention Deficit Hyperactivity Disorder (ADHD)

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Because speaking out in class is a frequently occurring problem (though not limited to students with ADHD), and because of the distractions and frustrations associated with such negative behavior (Reid, Maag, & Vasa, 1993), this research is focused on identifying the methods most useful and effective in curbing such behavior. A student making off-topic comments is not optimizing his class-time, as indicated by his attention to off-topic subjects. In the following excerpt, Nelson and Nelson (2000) summarize the impact of ADHD on the student:

> It is when the child enters the more structured environment of the elementary school that the difficulties become significant. Poor attention span, impulsiveness, lack of self-control, poor social skills, high incidence of "off-task" behavior, and difficulty finishing school work make learning difficult for the ADHD child. ADHD children tend to focus on the wrong stimuli at the wrong times and for the wrong lengths of time. They are distracted from what is relevant to the learning process, leading to poor academic progress (p. 16).

As discussed in the above excerpt, speaking out inappropriately and other distracting behaviors can lead to poor academic performance. This poor academic performance may be misinterpreted – by the parents, the teachers, and the student – as a lack of innate intelligence. More correctly, and more commonly, this lack of performance is a reflection of other factors. If these other factors can be identified and remedied, academic improvement well may follow. Regardless, remedying these factors – such as talking out inappropriately in class – can reduce frustration and improve the learning environment for everyone in the classroom.

Literature Review

Recent literature indicates positive, rather than negative, corrective actions have the most beneficial and dramatic impact on undesirable behaviors in students with ADHD (e.g., Smith & Gouze, 2004). In addition to being a powerful tool for changing students' behaviors, positive feedback and strategies can help boost students' self-esteem. Positive feedback and strategies help students see themselves as capable and responsible (whereas frequent punishment tends to reinforce a self-perception that the student is irresponsible or inherently bad) (Smith & Strick, 1997).

In addition to positive reinforcement steps, students with ADHD benefit from structure – so long as that structure is not overly rigid or inflexible. Structure provides a known, stable framework for learning, and provides a foundation for building and harnessing creativity within acceptable boundaries (Hallowell & Ratey, 1994).

As with most areas of life, to effect positive change, there must exist some desire for improvement on the part of the student himself. In his popular work on ADHD, Stein (2001) maintains that the key to improved school performance is the child's motivation. In the absence of the student's desire – whether spoken or even acknowledged – to change and improve, little positive impact can be made by others. Additionally, consistent with other behavior modifications, timely reinforcement of positive behaviors is a vital aspect of improving overall behavior (Garber, Garber & Spizman, 1990). Timely positive feedback keeps the student focused on (and rewarded for) near-term goals and objectives, when the student may have difficulty focusing on broad, long-term goals.

In their article on classroom management of students with Attention Deficit Hyperactivity Disorder (ADHD), DuPaul, Weyandt, and Janusis (2011) discuss a variety of strategies for educators to employ with students with ADHD. The primary methods discussed include "behavioral interventions, modifications to academic instruction, and home-school communication" (p. 35). The behavioral interventions discussed include preventive strategies such as ensuring the student is aware of classroom rules and providing frequent praise for following the rules (p. 36). Academic modifications are frequently reduced-length assignments, but the authors note another effective strategy is giving the student choices of methods to complete a task (e.g., choosing among similar assignments, choosing sequencing of actions) (p. 36). DuPaul, Weyandt, and Janusis also note that behaviors associated with ADHD frequently manifest at home as well as at school; communication and cooperation with parents can help the student both inside and outside school (p. 38). Lastly, these authors contend that a combination of strategies, including coordination between teachers and a multi-year continuous effort, produce the most effective results (p. 39).

DuPaul, Weyandt, and Janusis stress integration not only of strategies and collaboration by faculty members, but also reaching outside the school to contribute to a greater quality of life for the student. Consequently, by focusing not just on a checklist of strategies to ease the teacher's frustrations in the classroom, but also on factors outside the classroom, the authors provide a broad-based discussion of integrated home and school strategies; such broad-based strategies should pay dividends for the teacher, for the parents, and most importantly for the student as he sees a greater similarity and continuum of care between his teacher/school and his parents/home.

DuPaul, Weyandt, and Janusis provide helpful strategies to effect improvements not just in the student with ADHD, but as well in the student's life both in and out of school; in this regard, the authors' strategies contribute to the student's life education as well as his academic education. Within the classroom, the authors' strategies provide easily adopted methods to effect positive changes with minimal disruption to the other students in the class. Further, these strategies can be implemented without extensive training or preparation on the part of general education teachers, who are currently being asked to provide increasing support and accommodations to students such as those with ADHD.

Interestingly — and pertinent to the interventions used in this study — several recent studies, including Pellegrini and Bohn (2005), discuss the role and benefits of recess as a curriculum component for primary school students. Pellegrini and Bohn maintain that unstructured play time both provides an outlet for youthful energies and provides the students a break from mentally challenging classroom studies (p. 14). As the focus for educators continues to shift towards accountability, schools are maximizing instructional time, but with corresponding reductions in non-instructional time, such as recess (p. 13). Notably, the authors contend that extended academic periods without recess could be a factor in the increased

incidence/diagnosis of Attention Deficit Hyperactivity Disorder (ADHD); such extended academic periods provide inadequate outlets for natural energy levels among primary students (p. 17).The authors conclude that recess is necessary for social interaction, for physical conditioning, and for relief from sustained academic studies (p. 17).

Pellegrini and Bohn provide credible support for their claims, both with supporting research and with logical, convincing arguments. Their research calls for a reexamination of school scheduling with a view toward reintroducing/reinforcing recess time in the primary school day (p. 17). Pellegrini and Bohn effectively posit the academic and holistic benefits of recess; benefits that indicate more, not less, recess is necessary for primary school students.

By pointing out the benefits of recess during a demanding academic day, Pellegrini and Bohn draw attention to the diminished time allotted for recess as a means to accommodate more academic time. In too many instances, reduction in time allotted for non-instructional activities has been pursued as a means to boost academic performance. Despite these non-instructional reductions, schools have generally not achieved the desired levels of academic performance. Pellegrini and Bohn point out that reductions in recess time have been seen as "commonsensical" (p. 14) and widely adopted, despite a lack of empirical evidentiary support. Whether considering recess time reductions or other fundamental changes to the historical educational model, educators should base decisions on empirically validated options rather than on unproven ideas that may have unintended consequences (e.g., the possible increased incidence of perceived ADHD resulting from reduced recess time).

In unrelated research, Birchwood and Daley (2012) provide the results of a study confirming that much of what is known about Attention Deficit Hyperactivity Disorder (ADHD) in primary school children also holds true for older populations with ADHD (e.g., middle school, high school, and adults) (p. 230). Early thought in ADHD held that it was "outgrown" at puberty or during the middle school years (p. 225); the authors demonstrate that ADHD has long-term effects extending even into adulthood. While most recognize that ADHD has a negative impact on one's academic performance and prognosis (p. 225), the authors found consistent outcomes between ADHD and anxiety, motivation, and depression (p. 225).

Birchwood and Daley conducted a statistically rigorous study to support their idea that ADHD has negative impacts for students well beyond the primary school years. As the authors note, the ADHD symptoms were self-reported (by subjects aged 15 to 16 years old); a secondary (e.g., parental) reinforcement of the symptoms may have added validity to the results, but the subjects were of an age considered reliable in self-reporting (p. 226). An analysis of the correlation, rather than just the concurrence, of ADHD and depression, motivation, and anxiety would be helpful, but the authors held that their study included too many variables to make reliable correlations of these factors (p. 230).

By pointing out the long-term "continuum" (p. 230) of the effects of ADHD, Birchwood and Daley demonstrate that ADHD is not just a problem affecting younger students. Given the authors' conclusion that ADHD has long-term effects, educators should be more diligent in helping students with ADHD master self-management skills – the student with ADHD should not be considered merely in the light of helping the educator determine short-term accommodations or interventions, but with a longer view of helping the student learn to cope with a long-term impairment.

Method

The data for this study, collected and documented at a faith-based private school with the assistance and support of my previous administrator, as well as the informed consent of the student's parents, was designed to indicate the relative effectiveness of positive versus negative reinforcement for this student, a 12.2 year old Caucasian male. For student privacy, no identifiable information will be revealed; the student is identified by the pseudonym "Owen."

This study used a single-subject experimental design and methodology, which as Gall, Gall, and Borg (2010) note, is useful for behavioral analysis/modification in a given subject to reduce the incidence of undesirable behavior (e.g., speaking out inappropriately in class) (p. 310).

The variables involved in this research included multiple independent variables (differing interventions, combinations of successful interventions) and a fixed dependent variable, defined as the number of times the participant student spoke out inappropriately per class session. The working hypothesis for this research stated that a student with ADHD would be more responsive to positive interventions than to traditional negative interventions in curbing inappropriate behavior. The specific interventions evaluated included traditional (primarily negative) interventions (e.g., punishment- or administrator-oriented interventions) as well as less traditional reward-based positive interventions.

The baseline and each intervention were measured over five consecutive days' class periods each, recorded by the teacher. To minimize the effect of extraneous variables, the observations were taken within a consistent subject area, and a consistent time of day. Other extraneous variables, such as the participant's health, mood, and family/social factors, could not be measured or evaluated.

Results

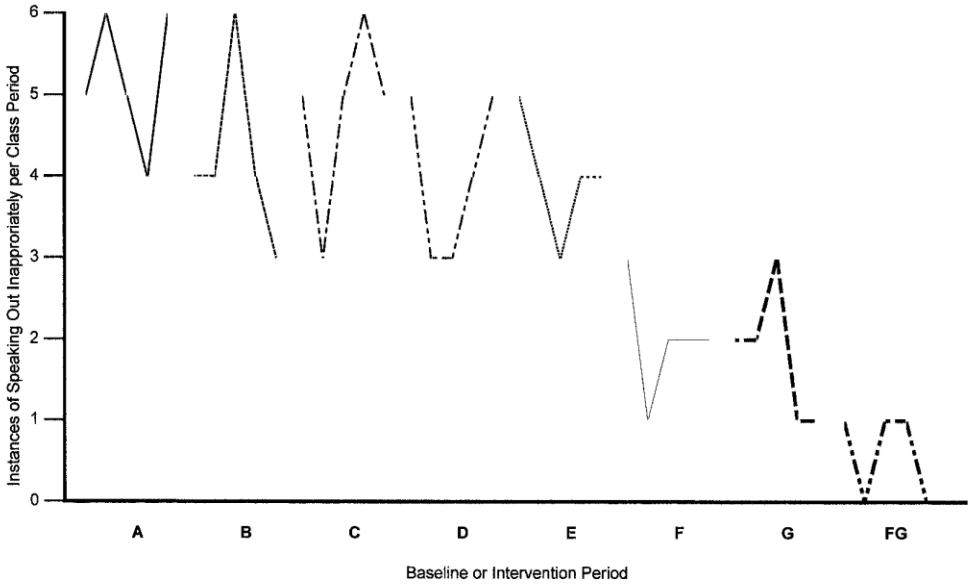
Baseline data, recorded in Figure 1 as variable A, indicates that before intervention, Owen spoke out an average of 5.2 times per class period. Following this baseline data, interventions labeled in Figure 1 as variables B through G, then a combination intervention FG, involved both negative and positive interventions.

Intervention B involved separating Owen from the rest of the class, placing his desk near the wall to minimize his distractions to/from other students. In Intervention C, Owen was sent to the office for principal-assigned after-school detention. Intervention D involved a conference with Owen and his mother. Intervention D was the last negative intervention; later interventions were positively focused.

Having noticed Owen's keen interest in basketball, Intervention E involved attending Owen's after-school basketball games to improve teacher-student rapport. In Intervention F, Owen was allowed to "earn" time in the school gym playing basketball by improving his in-class behavior. This intervention is consistent with the position of Pellegrini and Bohn (2005) regarding the role of recess/free play in students' development. After Intervention F, a new "earning" opportunity was introduced as Intervention G, which involved Owen earning time visiting with a basketball coach at school. Lastly, Intervention FG was a combination of Interventions F and G, where Owen was allowed to earn his choice of time either playing basketball or visiting with the coach.

The most effective intervention technique, reported in Figure 1 as Intervention FG, was effective in helping Owen focus his efforts in class to gain a reward within his control. Notably, the results of this intervention were greater than the sum of Intervention F and G when considered individually.

Figure 1: Participant response to differing interventio



Discussion

The results of this study support the original hypothesis in the participant evaluated. Specifically, for this participant with ADHD, positive interventions had a greater impact than negative interventions in curbing inappropriate classroom behavior. These results must be interpreted carefully, however. These results were valid for the specific participant involved, but may not be repeatable for other students with ADHD.

The results are, however, intriguing and strongly support the hypothesis that positive interventions are more effective than traditional, primarily negative, interventions in students with ADHD. Further, educators recognize the inherent value of each individual student. It seems both valid and worthwhile to tailor interventions according to the giftings or abilities of the involved student. As Beam and Keith (2011) note, "Our challenge as educators is to find the best way to instruct each student, not one way to instruct all students" (p.6).

As schools seek to serve an increasingly diverse student population while concurrently moving toward increasingly inclusive classrooms, and as diagnoses/identification of students with ADHD increase, teachers – whether in public or private school settings – must be correspondingly equipped to deal with the complexities and potential frustrations of students with conditions for which the teacher was not initially trained. Further, recognizing the position of Birchwood and Daley (2012) that ADHD is a long-term condition, educators should attempt to equip students with life-skills as well as academic skills; this includes helping students with ADHD or other conditions learn to self-manage their condition to the maximum degree possible.

Areas for follow up or additional research could involve other teachers attempting such measures with different students with ADHD, who may respond differently than Owen. Further, this research could be repeated with conditions other than ADHD, or across a larger population of students with ADHD. Regardless, Owen benefitted from this research, and it has broad implications for both special education teachers, and for inclusive classroom teachers who have little prior exposure to strategies for dealing with students with ADHD.

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