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Action Research: Verbal Protest

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Abstract

Verbal protest due to work being perceived as challenging and unexpected schedule changes was identified as a problem for a student in an Autistic Support classroom. Baseline data was taken on the number of instances of verbal protest observed throughout the school day. Research studies were examined to determine a variety of behavioral approaches that have been used and the effectiveness of self-monitoring tools in decreasing behaviors. A self-monitoring tool called a Self and Match was chosen to be implemented during the intervention period. Quantitative data was collected using partial-interval data collection throughout the day in 5-minute intervals. Qualitative data in the form of written observations in narrative form was collected weekly. Through analyzing the results, it was determined that the use of the chosen self-monitoring tool was effective in decreasing instances of verbal protest for this student with autism.

Introduction

The purpose of this study is to determine the effect of using a self-monitoring tool to decease a student with autism's instances of verbal protest. The student of interest is a ten-year-old male who has been diagnosed with autism and is a fifth grade student in my Level II Autism Support classroom. Billy (pseudo name) enjoys playing on the computer and iPad and can often be observed smiling and singing to himself. He loves sensory activities such as sitting on the rocking chair or playing with a bin of rice or beans.

Statement of the Problem

Although Billy will sit at the table and take part in academic tasks, when Billy becomes frustrated with his work or the schedule unexpectedly changes, he will begin to scream in the classroom. In these instances, he will often be observed screaming or shouting words such as, "I don't want to do it." or "No you, 4 +5." During displayed verbal protest, Billy requires time to calm down before he is able to return to the task. When Billy demonstrates verbal protest, other students are distracted from their instruction. This is evidenced when other children stop working, begin to cry, cover their ears, become aggressive, or begin to scream.

This problem was selected since Billy's instances of verbal protest interfere with his own instruction as well as the learning of others. At this point, other behavioral interventions have not been tried with Billy. Since research suggests that utilizing a self-monitoring system has shown to decrease problematic behaviors (Behaviors, 2014) and increase on-task behavior (Autism, 2012,) it is hypothesized that the use of a self-monitoring tool with decrease Billy's instance of verbal protest.

Context

Billy attends a public school in lower Bucks County, PA, which is in a suburban environment. With an enrollment of 705 students in his school, each class averages 20 students. The district is predominately Caucasian with 89.7 % representing this population. Economically, 56.3% of the households in the district make an average annual income of $50,000-$150,000 a year, and 19.5% of students in the district receive special education services. The overall population of the district continues to decrease with the possibility of schools being combined in the next five years.

Billy attends an Autistic Support Level II classroom that is run by the Bucks County Intermediate Unit #22. The class is considered a Competent Learner Model (CLM) classroom that is staffed with a ratio of 2:1. It is comprised of eight students in 3rd-5th grade. All eight students have autism with two students having a dual diagnosis of an Intellectual Disability. The room is staffed with one special education teacher and two full time assistants. Currently, a third assistant is also in the classroom, but is filled by a long-term substitute. Billy receives most of his academic instruction in the special education classroom including reading, writing, math, science, social studies, and social skills. He also attends morning meeting, specials, lunch, and recess with his typical peers in the general education environment and receives pull-out speech therapy and push-in OT services.

Literature Review

Definition/Characteristics

Autism is a developmental disability that is generally evident before the age of three. Taken from the Greek work autos meaning "self," autism is associated with a variety of characteristics including irregularities and impairments in communication, engagement in stereotypic and repetitive movements, resistance to change, and strong sensory needs (Hardman, Drew, & Egan, 2011). Therefore, autism is a condition in which children focus more on self-oriented behaviors to the exclusion of others. The American Psychiatric Association had estimated that the prevalence is about five cases out of 10,000 or 1:2000. When looking at diagnosis,

males outnumber females. Estimates place the ratio of male to females between 4:1 and 8:1 (Hardman et al., 2011). Even though the cause of autism spectrum disorder has not been discovered, research has focused primarily on the biological and environmental possibilities.

Under the American Psychological Association's (APA) updated guidelines, the DSM-5, there is a single classification that had been divided previously but is now labelled Autism Spectrum Disorder (ASD). This new classification includes most individuals formerly labelled as having Asperger's, Rett Syndrome, and Pervasive Developmental Delay (PDD). To meet the new criteria for ASD, an individual must either currently demonstrate or have a history including symptoms in all 4 of the following areas:

1. Persistent deficits in social communication and social interaction across contexts, not accounted for by general developmental delays, and manifest by all 3 of the following:

   A. Deficits in social-emotional reciprocity

   B. Deficits in nonverbal communicative behaviors used for social interaction

   C. Deficits in developing and maintaining relationships

2. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least two of the following:

   A. Stereotyped or repetitive speech, motor movements, or use of objects

   B. Excessive adherence to routines, ritualized patterns of verbal or nonverbal behavior, or excessive resistance to change

   C. Highly restricted, fixated interests that are abnormal in intensity or focus

   D. Hyper-or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment;

3. Symptoms must be present in early childhood (but may not become fully manifest until social demands exceed limited capacities

4. Symptoms together limit and impair everyday functioning.

The most current report from the CDC (2014) raises the estimate of children with ASD to 1 in 68 among 8 year olds, based on analyzing the reported diagnoses from 2010.

Individuals with autism demonstrate a variety of behaviors including aggression, non-compliance, stereotypic behaviors, self-injurious behaviors, verbal protest, echolalia, and fixation on preferred items or activities. One characteristic associated with autism spectrum disorder is resistance to change of routine. Individuals with autism spectrum disorder often become rigid with daily routines, sometimes being content eating the same thing every day or watching a specific television show continuously. These daily patterns become "obsessively important to them; any deviation from the set pattern may upset them greatly." (Hardman et al., 2011, p288). These ritualistic behaviors can make it difficult for a child with autism spectrum disorder to functionally integrate in daily life, which is unpredictable by nature. Transition from one activity to the next can be difficult in both the home and at school.

Strategies to Improve Social Skills

Research identifies a plethora of behavior modification techniques to help students with autism adapt to their environment, communicate their needs and emotions, and calmly respond to difficult situations. Video modeling can be utilized to teach a desired skill to an individual with ASD. Using this technique, a model such as a teacher, paraprofessional, or peer is videotaped demonstrating a targeted skill such as initiating play or refusing an item for two to three minutes (Hume, 2009). The individual with ASD then watches the film repeatedly and is encouraged to visually focus on the how the skill is performed. Another form of behavior modification used in classrooms are Individual Work Systems. As an element of Division Teach, the goal of this system is to increase independent functioning and reduce the need for teacher correction (Hume, 2009). For every activity, the students with autism are provided a structured physical environment, visual schedules, visual descriptions of what to do in the work environment and task organization (Hume, 2009). After providing these visual organizers, students are then expected to complete the task independently. Similar to the Individual Work Systems approach, visual schedules as well as reading and writing Social Stories are other potential options. One researcher studied using iPads with video recording of the transitions middle school students needed to make while changing classes; allowing students to watch the video preview of their route to the next class before changing rooms to prepare for the demands of the transition (Cihak, 2012).

Behavior modification can be addressed from a school-wide effort as well. One Canadian elementary school has adopted positive behavior interventions and supports, which is "a systems level approach that is used in schools to build a positive school culture and support the teaching and learning environment." (Kelm, 2014, p.1). In this school, expectations for behavior have been clearly selected and defined along with a specific system for acknowledging positive behavior. Clear consequences for ignoring school expectations are taught as well. Six months after implementing this school-wide plan, data depicted a decrease in disciplinary actions administered in each grade (Kelm, 2014).

Self-monitoring

One behavior modification technique that has shown evidence of helping individuals with autism is the use of self-monitoring. Self-monitoring is a behavior intervention that teaches students to be conscious of their own behavior, observe whether they occur, keep track of occurrence, and be rewarded for reaching a pre-determined criteria (Ganz, 2008). When educators choose to use a self-monitoring system with a student, seven steps should be followed (Ganz, 2008). First, the teacher chooses a target behavior(s). Second, a conversation should occur between the teacher and the

student that addresses the benefits of self-monitoring. In this step the student can pick reinforcers to work for when earning on the self-monitoring system. The educator then determines a way to monitor behaviors and take data along with selecting a specific self-monitoring design. After teaching the child to self-monitor, the tool is utilized in the classroom. Data is collected to determine if the system is effectively addressing the target behavior. Finally, when the teacher feels that the student is proficient in self-monitoring, supports are faded to increase independence (Ganz, 2008).

Self-monitoring systems have shown to have a variety of positive effects on children and adults. One benefit observed is an increase in demonstrated independence. In one study, individuals with moderate to severe intellectual disabilities were taught to use a picture prompt checklist during pre-vocational activities (Rouse, 2014). Multiple probes across skills illustrated that the students were able to complete the task with greater independence using the checklist (Rouse, 2014). Using self-monitoring systems with students with ASD has also proven to be highly effective. In one study, students with ASD were presented with an electronic interactive whiteboard that allowed for students to keep track of each task that needed to be completed (Autism, 2013). Data was taken on the duration that students could work without requesting teacher assistance. Results indicated an increase in tasks completed independently. To compare the effectiveness of high-tech and low-tech self-monitoring systems, research was completed in West Lafayette, Indiana in which students were either given a paper and pencil method or an iPad that was used as a self-monitoring checklist. Even though data illustrated an increase in independence from staff for both the low tech and high tech option, a greater increase was found with the use of the iPad. In a survey of 700 school personnel, it was determined that students with autism spend 86% of their day with a paraprofessional within 3 feet of proximity. Hume expresses that excessive adult proximity may be detrimental, training students to become prompt dependent on adults. Utilizing a self-monitoring system teaches students with ASD to observe their own behaviors in order to hopefully decrease problematic behaviors.

Utilizing a self-monitoring system has also shown to decrease problematic behaviors. In a study completed at Radboud University, researchers compared the monitoring of snack-eating to monitoring of alcohol-drinking (Behavior, 2014). Participants estimated frequency and satisfaction of consumption with a questionnaire. After the baseline period, consumption was measured using self-monitoring forms. Participants were randomly assigned to a group that either monitored snack-eating behavior (experimental group) or to a group that monitored alcohol-drinking behavior (control group). After self-monitoring, data showed reduced snack-eating but not alcohol-drinking (Behavior, 2014). It can be inferred from this study that self-monitoring is more effective in decreasing certain behaviors over others. In a related study, a self-monitoring system was utilized to target stereotypic behaviors in two boys with autism (Attention, 2014). After utilizing the system for six weeks, a decrease was observed in the target behavior for both boys.

Another benefit of using a self-monitoring system is increased on-task behavior. In a study completed at Arizona State University, the effectiveness of increasing on-task behavior during independent time with the use of a self-monitoring system was researched. A multiple baseline across subjects design was used (Autism, 2012). Data were collected using a frequency count of off-task behavior (Autism, 2012). The self-monitoring strategy was found to be successful with all subjects in the study.

With the variety of presented benefits associated with the use of self-monitoring with students with autism, the purpose of this current proposed study is to determine the effectiveness of using a self-monitoring system to decrease Billy's instances of verbal protest. For this study, Billy will be taught to use a Self and Match, a form of self-monitoring in which he can earn points for demonstrating desired behavior. It is hypothesized that with the use of a self-monitoring system, Billy's instances of verbal protest will decrease.

Research Questions

Question 1: To what extent does a self-monitoring tool decrease instances of verbal protest with Billy?

Questions 2: To what extent do I as a teacher observe differences in Billy's behavior with the use of a self-monitoring tool?

Methodology

I am conducting an action research single case study design using a mixed method approach to data collection. Quantitative data was collected using partial-interval data collection throughout the day in 5-minute intervals. Qualitative data in the form of written observations in narrative form was collected weekly.

Billy was selected for this study due to his demonstrated verbal protest. Research suggests that utilizing a self-monitoring system has shown to decrease problematic behaviors (Behaviors, 2014) and increase on-task behavior (Autism, 2012.) Considering the research, a self-monitoring tool was selected to be implemented during instruction. Baseline data was collected from October 20th- October 24th and intervention data was taken from October 27th- November 21st. After baseline data was collected, a Self and Match self-monitoring tool was implemented. Based on the research, a specific procedure was utilized to implement the use of a Self and Match during Billy's instructional periods. Since the target behavior was identified, I had a conversation with Billy that addressed the benefits of self-monitoring. In this step, Billy chose reinforcers to work for when earning points on the self-monitoring system. I then taught Billy to self-monitor, so the tool could be utilized in the classroom. Data was then collected to determine if the system was effectively addressing the target behavior. The ultimate goal would be to fade supports when Billy is proficient in self-monitoring.

To utilize the Self and Match self-monitoring tool, four categories were identified for focus including "Did I have a quiet mouth? Did I have quiet hands?, Did I have quiet feet?, and Did I stay at the table? After each academic session of the day, Billy had to write a "yes" or "no" under each category based on his perception of his behavior during the session. Next, the teacher or instructional assistant gave Billy a "yes" or "no" under each category. If Billy

and the instructor agreed with a "yes," he was awarded two points for the category. If Billy and the instructor agreed with a "no," he was awarded one point for being honest. If a mismatch occurred in responses, no points were added. Billy had a potential to earn 8 points for each academic session. If Billy earned at least a 7/8 for the session, he was given a reinforcer (which was typically an Oreo or 5 minutes on the iPad.)

In an effort to answer the research question, "To what extent does a self-monitoring tool decrease instances of verbal protest with a student with autism?" data was collected using partial-interval data collection throughout the day in 5-minute intervals. For each interval that verbal protest was observed, a (V) was recorded.

To address the second research question, "To what extent do I as a teacher observe differences in Billy's behavior with the use of a self-monitoring tool?" weekly summaries were written by the teacher describing her observations of Billy's instances of verbal protest. After a summary was written during the baseline week, a summary was recorded after each week describing instances of verbal protest and other factors such as unexpected schedule changes. After analyzing data collected to address research question 1 (instances of verbal protest) and data from research question 2 (perceived differences of Billy behavior with implementation of intervention,) it was hypothesized that there would be a relationship between this information.

Data Analysis

During the week that baseline data was collected, each instance of verbal protest was indicated as a "V" in five minute intervals throughout the day. The average for the instances of verbal protest observed during the week of baseline data (October 20th-October 24th) was 10.8. From October 27th-October 31st, the average for the instances of verbal protest observed during the week was 8. From November 3rd -November 7th, the average for the instances of verbal protest observed during the week was 4.25. Data was not taken on November 4th due to there being no school that day. From November 10th -November 14th, the average for the instances of verbal protest observed during the week was 3. Data was not taken on November 11th due to there being no school that day. From November 17th -November 21st, the average for the instances of verbal protest observed during the week was 0.6.

When looking at the narrative notes, various observations were recorded:

Baseline- October 20th-24th

During the baseline week, Billy demonstrated verbal protest in math, reading, independent time, and packing up. On Monday, Billy screamed when he became frustrated with his reading worksheet. Another student began to cry in this instance. He also showed verbal protest during math. Although he would respond to each addition flashcard, he was observed saying, "No you 5 + 5= 10." On Wednesday, Billy screamed when there was an unexpected assembly. On Friday, Billy screamed during group saying, "I don't want to stay at the table." Another student asked to take a break.

October 27th- October 31st

On Monday, Billy was introduced to the Self and Match. The examiner explained the benefits if using the tool (earning special things, working by himself, etc.) On Tuesday, Billy screamed when his speech session was canceled. On Thursday, Billy was observed taking deep breaths when he became frustrated with a new math concept. On Friday, Billy only demon stared verbal protest during the Halloween parade.

November 3rd- 7th

On Tuesday, When Billy earned several times after snack, he said, "I need to have a quiet mouth to earn an Oreo." He later told the examiner that he "did a good job." Billy was observed throughout the week smiling and dancing every time that he earned using the self-monitoring tool.

November 10th- 14th

Billy's instances of verbal protest have decreased since the baseline was taken. After each activity, he brings his Self and Match over to the teacher and says, "Let's see how I did." He has begun to identify his reinforcer prior to each activity. Billy was observed telling a classroom assistant, "I did it. I earned all of my points." Billy has often been observed taking deep breaths when he is frustrated with his work.

November 17th-21st

Billy excitedly brings his Self and Match over to each activity. He continues to take deep breaths when he is observed getting frustrated with his work and when the schedule changes. Billy has been observed making comments such as, "I got all my points!" when he earns after an activity. He asked to bring his Self and Match home to show his mom.

Summary of Findings

When analyzing the quantitative partial-interval data collection, the average instances of verbal protest decreased from 10.8 in the baseline week to .6 in the final week that intervention data was collected. In three weeks, Billy achieved almost 100% reduction in verbal protests after the use of the self-monitoring system. It appears that now is the time to begin a fading procedure so that Billy begins to internalize self-monitoring behaviors and is not dependent on extrinsic reinforcers such as food.

When analyzing the qualitative written observations in narrative form, several key themes can be found. First, most instances of verbal protest were observed in the afternoon, particularly during math and reading block. It is also evident that Billy is using taking deep breaths as a replacement behavior when he begins to feel frustrated with work or when the schedule changes. Although his face turns red in these instances, he does not make verbal statements. Finally, it can be inferred from the data that Billy understands the benefits of using his self-monitoring tool as documented by comments such as, "I did it. I earned all of my points." and "I need to have a quiet mouth to earn an Oreo." After

making the connection that "keeping a quiet mouth" helped him earn an Oreo or time on the iPad, he began to identify his desired reinforcer before the activity began. It is believed that Billy's instances of verbal protest decreased due to his desire to earn his targeted reinforcer.

Limitations

This study was designed with one participant. It cannot be determined if the results would be similar with a larger pool of participants. Data was taken for a limited amount of days. Additional data would need to be taken in order to document long-term effects of using this self-monitoring tool. Due to the limited timespan of the study, additional time would be needed to take data on Billy's ability to use the self-monitoring tool independently.

Implications for Transformational Pedagogy

Although I have done Action Research in the past, I feel that this research along with required reading has developed my understanding of the various ways to take data. As a special education teacher, I am constantly monitoring academic and behavioral progress of my students.

For the most part, the data that I collect is quantitative in nature, documenting instances of aggression or a specific percentage for an IEP goal on reading comprehension. Through completing this project, I discovered the importance of triangulation. By collecting quantitative data on Billy's instances of verbal protest while concurrently documenting my own qualitative observations, I saw patterns in the data that I may have missed with limited data collection. From this experience, I feel that I need to expand the ways that I take data both formally and informally in the classroom in order to get a better sense of how my students are progressing. This will be of particular importance when taking behavioral data, since anecdotal notes will assist in determining antecedents for observed behavior. From completing this Action Research, I have also been reminded that even one small intervention such as the addition of a self-monitoring tool can drastically improve a child's ability to function and learn in the classroom.

Final Thoughts

Although Action Research seems like a daunting process at first, it is reflective of the type of data-driven decisions that we make every single day in our classrooms. Even though I feel comfortable taking and analyzing quantitative data due to the nature of my classroom, through this process, I learned different types of qualitative data collection and how to code and analyze the results. This will shape how I take behavioral data in my classroom. I also feel that the emphasis on the literature reminded me to research what has already been done in the area of focus when I am considering a possible intervention. By looking at what has been effective in other studies, this can help pinpoint possible options for my students. After taking part in this process from beginning to end, I will complete Action Research in the future with a greater emphasis in taking data in various forms. I will also put greater thought into possible limitations when making data-driven decisions.

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Appendix

Verbal Protest Data Date: _____

(For each interval that verbal protest is observed, a (V) is recorded.)

Time	Recorded Instances of Verbal Protest	Time	Recorded Instances of Verbal Protest
9:00		12:40	
9:05		12:45	
9:10		12:50	
9:15		12:55	
9:20		1:00	
9:25		1:05	
9:30		1:10	
9:35		1:15	
9:40		1:20	
9:45		1:25	
9:50		1:30	
9:55		1:35	
10:00		1:40	
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