The case study is designed to be used with the in-service training program developed by the Child-Centered Inservice Training and Technical Assistance Network (Syracuse, New York), which provides services to professional and paraprofessional personnel working with students with severe disabilities receiving their education in regular education schools. Ryan, a 6-year-old with severe communication difficulties and behavior problems, attended a special education kindergarten in a regular school. Information is provided on: the child’s background; the program; identification of intervention needs; functional analysis; development of an intervention plan including ecological, curricular, and consequential strategies; implementation of the intervention plan; and evaluation and outcomes. Includes five references. (DB)
RYAN

A Case Study in Educational Consultation to Support Integrated Educational Placements for Students with Disabilities and Challenging Behavior

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Introduction

The Child-Centered Inservice Training and Technical Assistance Network was designed to help support integrated educational placements for students with severe disabilities and challenging behaviors. Each year, the project provided consultants to work with the school professional staff providing services for up to 15 target students with severe disabilities who were receiving their education in regular education schools. Consultants -- who were Ph.D.'s or doctoral students in special education or school psychology -- were available for on-site inservice training and technical assistance on a weekly basis throughout the school year. Their role was to facilitate problem-solving and to help design, implement, and evaluate a comprehensive intervention plan incorporating positive, educationally-focused strategies to remediate student needs. All interventions were conducted by existing program staff.

For more information on the intervention approach, see Evans and Meyer (1985) and Janney and Meyer (1988a). A more complete description of the steps in the consultation model is provided in Janney and Meyer (1988b).
RYAN

Student Background

Ryan was six years old in September, 1987 when he was referred to the Child-Centered Inservice Training Project by his school district's Director of Special Education. Ryan, who is labeled autistic, had just begun attending a special education kindergarten program at a local elementary school. During the previous school year, he had attended a special education preschool program in a neighboring school district.

Ryan's most striking physical characteristic was his size: He was much taller than the average child his age, and weighed well over 100 pounds. Motor skills were an area of strength for Ryan, and he related well to familiar adults. Social relationships with peers and communication skills were areas of difficulty: Though Ryan used gestures and some manual signs (which he often paired with a verbal utterance), they were so difficult to comprehend that he really had no reliable way to communicate, especially when he wanted something intangible or out-of-reach.

Program Summary

Ryan's kindergarten class operated according to a self-contained model. Though several of Ryan's seven classmates were mainstreamed into a regular kindergarten classroom for part of the school day, Ryan's exposure to typical students was primarily incidental. He ate lunch in the cafeteria at the same time as his same-age peers, but sat at a table with his classmates and the two classroom assistants. Ryan and his classmates also had
access to the library and the gym, but the activities they engaged in there were not integrated.

Figure 1 provides an example of Ryan's schedule on a typical day.

Figure 1. Ryan's Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45</td>
<td>Arrival (Hang up coat, etc. in locker) and choice</td>
</tr>
<tr>
<td>8:15</td>
<td>Pledge, Calendar, Weather</td>
</tr>
<tr>
<td>8:30</td>
<td>One-to-one Academic Work</td>
</tr>
<tr>
<td>9:00</td>
<td>Group Creative Activity</td>
</tr>
<tr>
<td>9:15</td>
<td>Group Activity (&quot;Rug Time&quot;)</td>
</tr>
<tr>
<td>10:00</td>
<td>Snack</td>
</tr>
<tr>
<td>10:30</td>
<td>Choice Time</td>
</tr>
<tr>
<td>10:45</td>
<td>Class Meeting</td>
</tr>
<tr>
<td>11:00</td>
<td>Songs</td>
</tr>
<tr>
<td>11:15</td>
<td>Lunch</td>
</tr>
<tr>
<td>11:45</td>
<td>Wash Up, Brush Teeth</td>
</tr>
<tr>
<td>12:00</td>
<td>Rest/Story</td>
</tr>
<tr>
<td>12:30</td>
<td>Choice Time</td>
</tr>
<tr>
<td>1:00</td>
<td>Group Academic Activity</td>
</tr>
<tr>
<td>1:30</td>
<td>Journals</td>
</tr>
<tr>
<td>1:45</td>
<td>Departure</td>
</tr>
</tbody>
</table>
Intervention Needs

At the initial meeting with the consultant from the Child-Centered Inservice Project, Ryan's teacher and the two classroom assistants described Ryan's challenging behaviors as pinching, kicking, head-butting, and "throwing his weight around." The teacher believed the behaviors were all related to Ryan's lack of communication skills, and did not perceive them as evidence that he was purposefully trying to hurt anyone. Her priorities for intervention were Ryan's skill deficits in the areas of communication and social interaction.

Functional Analysis

Ryan's teacher and her assistants had already begun doing some problem-solving regarding the conditions that were predictive of Ryan's challenging behaviors. They knew, for instance, that problems tended to occur when Ryan was trying to indicate that he wanted to get something, such as food or a toy. They were not certain whether there were other antecedents to the target behaviors.

Classroom staff collected data on Ryan's pinching and hitting using an interval recording method. For each 15-minute interval, staff noted whether the target behavior was observed. After two weeks, these data were summarized using a scatter plot technique (Touchette, 1985).

The scatter plot revealed that Ryan's challenging behaviors were most likely to occur at "rug times." These times involved staff-directed group activities where students sat on designated
spots on the floor. The instructional format for these sessions was primarily sequential tutorial: each student waited for a turn to indicate an answer to a question asked by the staff person. The waiting involved, along with the primarily verbal nature of the activities, seemed to be frustrating for Ryan.

Therefore, it was hypothesized that the function of Ryan's problem behaviors were: 1) to escape frustrating and difficult tasks or situations, and 2) to communicate when he wanted something.

**Intervention Plan**

Based on this analysis, the intervention plan developed for Ryan (see Figure 2) focused on manipulating the environment to temporarily avoid situations that set the stage for problems, while teaching Ryan more positive ways to indicate preferences and make choices. Teaching Ryan social skills for initiating and maintaining social interaction with peers was a second intervention need.

**Ecological strategies.** Ecological strategies involve rearranging the environment so that the problem behavior is less likely to occur. These strategies might include changes in the classroom environment (seating, furniture, and so on), changes in the student's schedule or the types of tasks the student is doing, or changes in the instructional methods or format. As Ryan's problem behaviors were often motivated by the desire to escape from situations he didn't like, the purpose of the ecological component of the intervention plan was to design a
**INTERVENTION NEEDS**

**ECOLOGICAL INTERVENTION PLAN:**

1. Bites, pinches, head butts; also some disruptive behaviors such as pounding on desk.

**Hypotheses:**

Ryan uses these behaviors both to **get something he wants** and to **avoid things he does not want.**

1.1 Picture schedule of his day

1.2 Structured activities that must be completed to have choice time.

1.3 Group time before snack is especially difficult. Instead of staff setting up snack, have Ryan do it during last 10 min. of group. (This provides lots of opportunities for developing functional domestic & academic skills: one-to-one correspondence, following picture directions, etc.)

1.4 Adult who is responsible for Ryan should sit/stand behind him; interrupt undesired behaviors and provide prompts nonverbally.

**CURRICULAR INTERVENTION PLAN:**

**Goal:** Teach positive ways to indicate preferences, say no.

**Obj.:** Will indicate choice of 2 leisure activities at choice time by sign and verbal approximation.

**Obj.:** Will sign/verbally approximate names of desired objects and activities -- drink, bathroom, etc.

**Obj.:** Will sign & verbally approximate "break" after completing concrete task objective.

**INTERVENTION PLAN: CONSEQUENTIAL/CRISIS MANAGEMENT**

Redirect to task using gestures, physical prompts. Do not terminate the task until objective met. Do not stop to "lecture" or give eye contact. Give lots of verbal and physical reward for participation.

If other students are in danger (this seldom happens), remove them from the area.
school day that would be less frustrating and more meaningful to him. The ecological strategies implemented for Ryan included the following:

Laminated photographs of Ryan engaged in each of his daily activities were mounted on poster board to create a picture schedule. At the end of each activity, the adult assigned to work with Ryan for that activity would go with him to his schedule board and explain, for example: "Snack time is over, now it's time for choice." Ryan then removed the picture of the completed activity from the board and placed it in an envelope attached to the bottom of the schedule.

Ryan's instructional sessions and were broken up into a series of short work times interspersed with choice times. The teacher or assistant working with Ryan would give him a concrete goal at the beginning of the work session, and when that goal was accomplished, he could take a short (2-3 minute) "break." During his breaks, Ryan could choose from among several toys and games such as a telephone, a cash register, and toy cars and trucks.

Changes were also made in Ryan's schedule to provide him with additional functional skill routines. For example, the group activity scheduled just prior to snack was a time that was particularly difficult for Ryan, as he not only wanted to escape from the activity, but also wanted to get to snack. To avoid this situation, the team decided to have Ryan participate in the group activity for approximately 5 minutes and then set the table for snack. This not only avoided the problem behavior, it
provided Ryan with an activity that incorporated more of his IEP objectives, including demonstrating one-to-one correspondence and following a sequence of steps to complete a task. When the other students sat down for snack, Ryan often helped pass out the snack, which provided an opportunity for positive interactions with his classmates.

During another morning "rug time," Ryan again participated for five minutes and then went with one of the assistants and a peer to the gym to jog for ten minutes.

Because Ryan's size made it virtually impossible for him to sit cross-legged in the floor, he was allowed to sit in a chair during "rug time." The negative aspect of this strategy was that it made Ryan different from his classmates; however, when that cost was weighed against the benefit of his improved behavior and increased participation in the activity, using the chair won out, at least as a temporary strategy.

Though the changes in Ryan's schedule meant that he initially spent less time in instructional activities with his classmates, care was taken to provide ample opportunities for him to interact with his classmates during structured "choice times," snack time, and during small group (two or three students with one adult) instructional sessions.

Ryan's teacher had already implemented the ecological strategy of increasing adult supervision of Ryan, so that a staff member was responsible for Ryan at all times and usually in close proximity to him. This level of supervision can be beneficial in
preventing and interrupting unwanted behavior, but it can also be highly intrusive to the student, thereby "causing" other problems. Therefore, the assistant assigned to Ryan during group activities was encouraged to sit or stand behind Ryan instead of beside him and to "shadow" him as unintrusively as possible. The assistant was to avoid mediating the teacher's verbal interactions with Ryan or giving him additional verbal prompts.

**Curricular interventions.** Curricular interventions are essential to the educative approach to behavior problems, as one of the assumptions on which the approach is based is that the most effective way to decrease a problem behavior is actually to increase an alternative behavior that will accomplish the same function for the individual (Evans & Meyer, 1985). Curricular interventions include both teaching the person a specific adaptive alternative to use instead of a targeted problem behavior, and teaching other, more general, skills—social skills and self-management skills, for example—that will help him or her avoid problems in the future.

The curricular interventions implemented for Ryan focused on teaching alternatives to the use of aggression to escape from a non-preferred task or situation, and skills for indicating choices and initiating social interactions.

During work time, Ryan was taught to sign and verbally approximate the word "break" as a way to indicate his desire to escape from a non-preferred activity. It is important to note that Ryan was given concrete goals at the beginning of each work
session, and that breaks occurred only after those concrete goals were achieved. The goals was not to teach him that he could escape from every non-preferred task or situation, but that if he completed the task, he could have a break before going on to the next task.

Though breaks were a "low demand" time, they were still learning time. During breaks, Ryan was taught to use a sign and verbal approximation to indicate his preference between two toys; skills for playing with various toys and games were also targeted and taught.

Another curricular objective was teaching Ryan to engage in a leisure activity with one or two other classmates.

Consequential strategies. The consequential component of the intervention plan was designed to show Ryan that though hitting and pinching would not work as a way to escape, his teachers were willing to help him use more conventional ways to communicate his wants. The plan therefore emphasized redirecting Ryan to the task at hand, reminding him of the concrete goal, and then, when the goal was achieved, prompting him to use a sign/word to express himself. The thing staff wanted to avoid was letting the negative behavior work as a way to escape task demands. Ryan's aggression was usually directed toward adults, and was not dangerous enough to necessitate development of a crisis management plan. Staff decided that if other students ever were in danger, they would be moved away from Ryan by one of the assistants.
Implementation of the Intervention Plan

The consultant spent a total of approximately 50 hours on-site: visits were made almost weekly during the fall 1987 semester, and approximately twice every three weeks during the spring 1988 semester. Visits alternated between observations conducted during the school day and meetings held after school to provide feedback, problem-solve with staff, and discuss evaluation of the plan. Videotapes were made of Ryan three times during the school year: these tapes were observed by staff and used for problem-solving and self-evaluation.

Ryan’s teacher immediately implemented the agreed upon schedule changes and created a picture schedule for Ryan. She (and the two classroom assistants to a somewhat lesser degree) embedded Ryan’s targeted social and communication skills in his general instructional program and reinforced his use of these skills throughout the school day.

Lack of integration and failure to fade interventions were the biggest implementation problems. Ryan’s teacher was frustrated by the lack of administrative support for her efforts to better integrate Ryan and his classmates with their typical peers.

Evaluation and Outcomes

Figure 3 provides a summary of staff-collected data on Ryan’s aggressive behaviors (pinching and biting). During baseline in October, aggressive behaviors were observed during 33% of the intervals for which data were recorded. After the ecological
Figure 3. Ryan's Aggression

% of 15-min. intervals during which aggression occurred

BASELINE

INTERVENTION

Weeks
1-2 3-4 5-6 7-8 9-10 11-12 13-14 15-16 17-18 19-20 21-22 23-24
Oct. 3-4 5-6 7-8 9-10 11-12 13-14 Feb. 15-16 17-18 19-20 21-22 23-24 May
component of the plan was implemented (schedule changes and picture schedule), the rate of aggressive behavior immediately decreased to 25%. The rate of aggression continued to decline gradually as the curricular components of the plan were implemented, so that by mid-February, during weeks 13 and 14, aggression was observed during 17% of the intervals.

Ryan's behavior worsened during late February and early March. Staff hypothesized that Ryan was having difficulty re-adjusting to school after winter break; he also had a bad cold in February and missed several days of school. Ryan's behavior again improved between March and May: aggression was observed during 12% of the intervals during weeks 21 through 24.

Data on Ryan's acquisition of signs and words were not recorded systematically enough to display them graphically, but the consultant reported anecdotally that whereas during the first observation in October Ryan seldom used an appropriate sign or word spontaneously or in response to a natural cue, in May he was observed to do so up to 9 times within a 15-minute structured activity period.

Ryan learned to use his picture schedule spontaneously (at the end of an activity, he would go to the schedule and remove the picture of the completed activity). He also used the schedule to communicate when he wanted to be finished with an activity: He would often go to his schedule and remove pictures of non-preferred activities, especially those that preceded snack! By April, he was able to independently arrange the
pictures in correct sequence in preparation for the following day!

Discussion

Ryan's teacher was very receptive to consultation, and strove to implement most components of the intervention plan. She and the classroom assistants demonstrated a genuine willingness to work with the consultant to try to meet Ryan's needs using a collaborative approach. One of the evaluation tools used by the Child-Centered Inservice Project is the Program Quality Indicators: A Checklist of Most Promising Practices in Educational Programs for Students with Severe Disabilities (Meyer, Eichinger & Park-Lee, 1987). Of the six areas assessed by the PQI, three are more directly under the control of the classroom teacher: Program Design and Student Opportunities for Learning, Systematic Instruction and Performance Evaluation, and IEP Development and Parent Participation. The program taught by Ryan's teacher scored 70%, 67%, and 82%, respectively, in these three areas. These are very good scores on the PQI, and point out some of Ryan's teacher's strengths.

It should be noted that the time sampling data recording system was used because it is less taxing for classroom staff than doing a frequency count. Unfortunately, the data as collected do not reveal whether the frequency of the aggression within each interval decreased (classroom staff observed anecdotally that it did).

By January of 1988, staff were more focused on another
student's challenging behavior than they were on Ryan's. It would be interesting to investigate whether and how the degree of commitment staff have to a student with challenging behavior affects their tolerance of the student's behavior. In this case, it seems that staff grew to know and care for Ryan, and tolerated higher levels of the problem behavior than they had initially thought they would. It is also possible that once some improvement is evident, there is less of a focus on further reduction of the problem behavior.

At the beginning of his first year of school in his home district, Ryan's placement was in jeopardy due to his challenging behavior. By the end of that year, Ryan was still a student who presented challenging needs, but there was no question that he would be maintained in the regular school placement for the following year, and classroom staff felt competent to address those needs without further assistance from an outside consultant.
References


