This paper provides special educators with effective strategies for successfully implementing full inclusion of disabled students in general education classrooms. The starting point for inclusion is the Individualized Education Plan (IEP), which develops goals and objectives and considers appropriate student placement. Frequently, IEP objectives are not particularly meaningful or useful to the type of activities that occur in the general education classroom. A preferred alternative is activity-based objectives that are set within the context of typically-occurring classroom routines. Objectives should include interactions with nondisabled peers and incorporate skills that are functional and meaningful for the student. Development of an individualized and inclusive program depends on a collaborative team made up of the general education teacher, the special education teacher, the instructional aide, parents, and other professionals or paraprofessionals who provide services to the student. Unlike the IEP team, which may meet only once a year, this team communicates frequently to develop, implement, and adjust the educational program for disabled students. Other strategies for successful inclusion include staff training and the completion of an inclusion matrix that identifies the adaptations and supports needed for special education students in the general education classroom. A case study focuses on Mitchell, a student with Down's Syndrome in a rural third/fourth-grade classroom. In the beginning it was observed that Mitchell was not an integral member of the class. For the most part, he worked with an instructional aide who was assigned specifically to him, on papers developed by the special education teacher. He rarely interacted with the general education teacher or with other students. An inclusion matrix for Mitchell illustrates modifications and adaptations that were made to meet IEP objectives. As a result of these practices, Mitchell's classroom behavior improved, he engaged in meaningful activities similar to those of other students, and he became a real and valued member of his class. (LP)
PROVIDING APPROPRIATE EDUCATION IN INCLUSIVE SETTINGS: A RURAL CASE STUDY

Persons interested in the education of students with disabilities are increasingly emphasizing the inclusion of all students, even those with severe disabilities, in general education classrooms. This recommendation results from increased educational gains, enhanced social interactions and resulting friendships, as well as other benefits that occur as a result of students with disabilities being fully included. Too frequently, however, students with moderate to severe disabilities are physically included but are not full members of general education classrooms. This lack of membership may result in part because special education and general education teachers are in the process of learning how inclusion works. To be beneficial it is imperative to move beyond the mere physical placement of students with disabilities into general education settings. The experience must be educationally relevant for children with disabilities, as well as for the more typically-developing children in the class.

True inclusion means that students with disabilities are an integral part of the general education classroom. While their learning goals and tasks may be different, they are using similar materials and following the same schedule as the other students in the class. Peer interactions are frequent and meaningful, and, although they may have significant contact with the special education teacher or aide, they interact with the general education teacher as often as do students without disabilities. Students with disabilities in inclusive classrooms sit with the other students, have an assigned desk, cubby, coat hook, or any other classroom belongings that other students have. They are assigned to groups to complete activities as are other students. Students with disabilities are held accountable for their behavior and are expected to participate in class activities as are others. In other words, students with disabilities are viewed by staff and peers as participating members of the class.

The purpose of this paper is to provide special educators with strategies to follow to enhance the success of full inclusion of students with disabilities in general education classrooms. We will focus on the case of one student and one rural classroom where the authors and a team of professionals worked to evolve a truly inclusive program.

We begin by describing Mitchell and his educational program when he was physically enrolled but not an integral member of the general education classroom.

Mitchell lives in a remote area of Nevada. He is 10 years old and attends a combination third/fourth grade class. Mitchell has Down syndrome and functions with a moderate level of mental retardation. Mitchell's speech consists of a few words used in isolation that are difficult to understand.

Mitchell's school serves about 50 children. Its four general education classrooms include kindergarten, first/second grade, third/fourth grade, and fifth/sixth grade, and each enrolls 14 to 18 children. A half-time special education teacher (who also has responsibility for Title One and for teaching the fifth/sixth grade in the afternoon) and a half-time principal (who teaches the fifth/sixth grade in the morning), complete the...
When we first observed in Mitchell's classroom we saw Mitchell working with an instructional aide who was assigned to him and another child. Mitchell was working at a desk on the side of the classroom, on papers developed by the special education teacher. Mitchell was supposed to be writing his name several times on the page, tracing over dotted lines to form the letters; however, Mitchell did not like the task. Mitchell protested loudly, left his seat, walked around the classroom, and got a book in which he could paint with water. The painting was supposed to be used as a reward for completing his name work sheet, but Mitchell was allowed to do several sheets so that he stopped disrupting the class. We also observed that Mitchell would roll on the floor or go to the hall to lay down whenever he did not want to complete assigned activities (the hall contained a cot for students who were ill). The other students largely ignored Mitchell no matter what his behavior was like, and Mitchell and the general education teacher seldom interacted. Mitchell was assigned activities with the aide that were described or prepared by the special education teacher. The special education teacher came into the room periodically to work with Mitchell, and the remainder of the time she worked in a separate room with small groups of students who were qualified as either Title One or mildly disabled.

Mitchell was included in the general education classroom primarily because of the wishes of his mother, who wanted him to interact with non-disabled students. Although the general classroom teacher and the special education teacher were both positive about the concept of inclusion, they did not feel it was working well for Mitchell.

How do school personnel design an effective inclusion program for a student like Mitchell? As with a special education program for any student, the beginning point is the student's Individual Educational Plan (IEP).

The IEP: The Starting Point for Inclusion
Although there is a new emphasis on the inclusion of students with disabilities into general education settings, the mechanics of the decision regarding placement of a student with disabilities in general education has not changed. This decision is still made individually for each child by the multi-disciplinary team at the IEP conference. The most appropriate placement for the child is determined after the goals and objectives are developed. However, the manner in which the objectives are written does influence whether an inclusive setting is considered as well as how easily they objectives can be accomplished in the general education setting.

Frequently, the IEP objectives are written in a manner that leads to targeting isolated skills in more segregated placements. The following are examples of short-term objectives that are often seen in the IEPs of students with moderate disabilities:

- Given hand-over-hand assistance, Margaret will cut simple shapes to within ¼ inch of the outline of the shape on four separate occasions.
- Given lined paper, Darren will write his first and last name using correct upper and lowercase letters to teacher satisfaction, 10 times on five separate occasions.

Although these objectives are complete, they are not particularly meaningful or useful because they do not relate to the type of activities that typically occur in the general education classroom. Objectives written in this manner lead both general and special
education teachers to believe that the student with disabilities needs a totally separate or parallel curriculum.

A preferred alternative is ACTIVITY-BASED OBJECTIVES. Activity-based objectives are set within the context of typically-occurring classroom routines appropriate for the chronological age of the student. They should include interactions with the students' non-disabled peers. They incorporate skills that are functional and meaningful for the student and they are carried out in the "natural environment." Some examples include:

| Given a small group activity involving assembly and cutting, Sara will cut out the pictures identified by other group members and glue the pictures with peer assistance on three separate occasions. |
| When completing individual or group assignments, Charles will write his name on his work at least three times during the day consistently throughout the school year. |
| Given a picture schedule of the day's activities and verbal prompting, Pat will follow the schedule (checking off completed activities, naming the next activity, and beginning the activity independently) on 10 separate days. |
| Given a self-selected book, Morgan will choose a peer to read the book to her and will attend to the story for 10 minutes on five occasions. |

When an inclusive program is determined to be most appropriate for a student, it is assumed that the long-term goals and short-term objectives can be accomplished in the general education classroom with a variety of modifications and supports. Deciding to place a student with disabilities in a general education classroom, however, is only the first step in providing an appropriate education. A great deal of planning and effort need to go into designing the student's activities, specifying adaptations needed, and scheduling support personnel.

The Planning Process
For inclusion to be successful, the education of students with disabilities must be seen as everyone's responsibility--not just the responsibility of the special education teacher or the instructional aide. Since the goal for the child is to be a full member of the class, the general education teacher must play a crucial role in planning and delivering the child's education. Obviously, this teacher, along with other school personnel, needs support, information, and training.

The heart of the process for developing an individualized and inclusive program is the collaborative team. This team can be made up of the general education teacher, the special education teacher, the instructional aide, the parent(s), and other professionals or paraprofessionals who provide services to the student (e.g., speech language pathologist, counselor, occupational therapist).

Unlike the IEP team, which may meet only once a year, this team communicates frequently to develop, implement, and adjust the educational program for the student with disabilities. The team must meet face-to-face on a regular basis to discuss student progress, upcoming events or situations, or any problems that arise. To collaborate effectively, the team must have a system for daily communication on an informal or written basis. The figure below shows an example of a communication sheet used by a collaborative team. This sheet is kept in a convenient place in the general education classroom. As the general education teacher has questions or comments about how to
handle a situation, requests for additional supports in the classroom, or concerns about implementing any aspect of the student's program, she or he dates them and jots them down in the left column of the communication sheet. The special education teacher, instructional aide, or related service providers check this sheet on a regular basis each time they enter the general education classroom. Sometimes they will simply record their response in the right column of the sheet. Other times, however, they might indicate that they will meet the teacher after school or during a break to discuss the situation in detail. This frequent, informal communication system allows all persons involved in the child's program to ask questions or communicate concerns so that minor situations do not become serious crises.

CONSULTATION REQUESTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Request / Question</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Training is another aspect of an effective inclusion program. This training does not have to be formal workshops or college courses about students with disabilities. Personnel at the school often already have the expertise needed to implement inclusion—it just needs to be shared. Sometimes, it is helpful to bring in consultants who can take a look at a situation with a fresh perspective. In either case, training can occur "on-the-spot." Sharing a situation with Mitchell might clarify this concept. Although in this case we were "outsiders," the same on-site direction can be given by special education teachers, speech/language pathologists, occupational therapists, or other professional personnel with specific expertise.

We watched Mitchell refuse to complete an activity and lay on the floor balking at the aide's requests to move. We went to the general education teacher and asked her to direct Mitchell to get up. We stood at her shoulder and quietly suggested she tell Mitchell, "You need to get up. I will count to three and then I will help you." Seconds after she said this and held out her hand to Mitchell, he got up and went to his seat. The teacher was surprised that he complied with her request. She learned that her interactions with Mitchell (which had been infrequent) could be effective and that she could directly ask for his cooperation in the classroom. We had observed that Mitchell clearly seemed to know she was the "real teacher," and we suspected that he wanted more of her attention.
As we continued to make recommendations about Mitchell's program, the teacher, aide, special education teacher, and even the other students in the class implemented them. We all began to see some immediate changes for the better in Mitchell's behavior and some indications that other aspects of his behavior (following a schedule, completing work, interacting with peers) might change with time. This on-the-spot "training" was more effective than a workshop or reference book would have been in helping the people at this school learn how to deal with this child.

An essential planning tool for determining what adaptations and supports are needed in the general education classroom is an inclusion matrix. A matrix developed for Mitchell is shown below. The matrix is completed by the collaborative team, preferably prior to the beginning of the school year. First, the IEP objectives for the student with disabilities are recorded down the left column of the matrix. Next, the general education teacher is asked to describe the daily schedule for the class. This information, along with the length of time of each activity, is recorded in the spaces along the top of the matrix. Then the team considers when and how each of the student's objectives can be accommodated in the general education schedule. The key for completing the matrix can be tailored to the needs of the child and the team. In the example for Mitchell, "X" is placed in squares coinciding with objectives that can be met during regularly scheduled classroom activities. An "M" is used to record when Mitchell requires modified materials; and "S" indicates where extra personnel or peer support is needed for Mitchell to complete an activity.

The team's conversation that ensues from the completion of the matrix helps define the roles of the special education teacher, the general education teacher, and others who may be involved in the education of the student. The general education teacher is shown how a meaningful education can be provided for the child within the context of the existing general education schedule. Arrangements such as peer tutoring or cooperative grouping can be discussed. Specialized materials can be designed or ordered. Activities are defined that will need the support of the special education teacher or instructional aide. During times of the day in which few objectives are to be addressed, even with modifications or support, the student can participate in community-based activities or meaningful tasks in other parts of the school. These other activities would be specified in the student's IEP objectives.

**Meaningful Inclusion for Mitchell**  
We were so pleased at the immediate change in Mitchell's behavior as a result of the modifications the general education teacher made "on the spot" that we decided to return to the school in two weeks. What we saw at that time reminded us of the power of truly inclusive programs and the way they can affect the lives of children with and without disabilities.
### Inclusion Matrix

**Name**  
Mitchell  

**Grade** 3/4  

**Date** 3/5/96

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>Times →</strong></td>
<td>5 min.</td>
<td>10 min.</td>
<td>30 min.</td>
<td>30 min.</td>
<td>30 min.</td>
<td>30 min.</td>
<td>30 min.</td>
<td>30 min.</td>
<td>30 min.</td>
<td>15 min.</td>
<td>20 min.</td>
</tr>
</tbody>
</table>

#### IEP Objectives:

1. Write own name
   - X
   - X
   - S
   - X
   - S
   - S
   - S
   - S
   - S

2. Counting 1-20
   - X
   - M
   - M
   - X
   - S
   - S
   - S
   - S
   - S

3. Read numbers
   - X
   - M
   - M
   - M
   - X
   - S
   - M
   - S
   - S
   - S

4. Follow a schedule
   - S
   - S
   - S
   - S
   - S
   - S
   - S
   - S
   - S
   - S
   - S

5. Get out & put away materials
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X

6. Interact with peers
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X

7. Follow verbal directions
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X
   - X

8. Cut, paste, etc. as part of activities
   - S
   - S
   - S
   - S
   - S
   - X
   - S
   - S

**Specific Modifications and Adaptations:**

*Special education teacher will identify appropriate computer programs. Special education teacher and aide will develop materials for journal, reading and math seat work.*

**Support Personnel Role/Schedule:**

*Aide in classroom from 10:45 to 2:00 daily. Special education teacher in classroom from 9:45-10:45 daily. Both will assist Mitchell only as much as needed and will also work with other students.*
As we entered, Mitchell was working at the computer, next to several other children working on different programs. Mitchell independently operated the computer program with a mouse, clustering objects in the same category. The teacher was leading a small group of children in a reading activity, and other children were working independently at their desks.

When the teacher directed the class to change activities, Mitchell went to a corner of the class and played with “Legos.” Another boy joined him. When it was time to clean up, Mitchell devised a game in which the other child gathered the Legos and put them in the round lid, then Mitchell dumped them into the container (thus ensuring that the other child did the majority of the work).

At a table with the instructional aide, Mitchell named the colors of markers he used to trace over the names of food groups written in pencil on a piece of poster board. This was to be used later by a group of students (including Mitchell) to glue pictures of food under the correct headings. The instructional aide got Mitchell started on the task, supervised for a few minutes, and moved away.

The children all returned to their seats and the teacher began the health lesson. She discussed the importance of exercise and had children come to the front of the room and pantomime their favorite sport for the others to guess. When it was Mitchell’s turn he made a movement like a tennis player and called on several students to respond. The teacher told him to return to his seat and he dropped to the floor. The teacher smiled and held out her hand. Mitchell took it, got up, and returned to his desk. Shortly thereafter, the children went to the gym to play follow-the-leader. Mitchell took a turn leading the class around the gym, and followed other students when they were leaders. The class did some cool-down activities and returned to the classroom. As they passed the cot in the hall, Mitchell laid down and did not follow the class into the room. The teacher first asked Mitchell to get up, then she went into the classroom. Mitchell remained on the cot. The teacher started the other students reading more about health and exercise, and directed one boy to ask Mitchell to return to the class. Mitchell remained on the cot. After a few minutes, while a child was reading aloud, the teacher went to the hall and quietly but firmly directed Mitchell to return to the class. He got up and went to his seat.

During recess, Mitchell climbed the platform that held the twisting slide. Once at the top, he seemed reluctant to come down. The children developed a game in which a child would sit at the top of the slide and Mitchell would give them a push to start down the slide. When the bell rang, Mitchell finally slid down to the ground and lined up.

A few weeks later, we received a videotape of Mitchell and his morning activities. In the tape, Mitchell arrived on the school bus with the other children, hung up his coat in the hall and went inside the classroom. He opened his backpack and took out his lunch. He put this away in a corner of the room as the bell rang. Then he closed his backpack and took it to the same corner of the room, and returned to his seat. The teacher called Mitchell to the front of the room. Two children read the lunch menu for the day while Mitchell held up a
picture of a taco. With the help of the instructional aide, Mitchell counted the number of children who stood to indicate they were having the hot lunch.

Before the class began the teacher had written a sentence on the board without capital letters or punctuation. The name "Mitchell" was also written low on another section of the board. The teacher called on students to come to the board to correct the sentence. Mitchell came to the board (without waiting to be called on) and wrote an "M" under his name.

Further on the tape we saw Mitchell working on verbally naming pictures with the instructional aide while other students did independent work or small group work with the teacher. We also saw a girl reading a story to Mitchell and showing him the pictures in her book.

What we saw was not the behavior of a typical ten-year-old boy, but we did see a child who had become a real and valued member of his class. Mitchell was engaged in meaningful activities that were similar to what other students were doing, and, in some cases, contributed to the efforts of the group. His fellow classmates interacted with him because they wanted to.

The general education teacher took a key role in providing Mitchell's education, and his behavior was compliant and independent. We observed him working on the IEP objectives of following a schedule, writing letters and his name, counting, naming colors, following verbal instructions, and interacting with peers, all within the schedule of the general education classroom. Inclusion was working for Mitchell.

Summary
Using a systematic process of planning and collaborating can result in successful inclusion of students with disabilities in general education classrooms. This planning and ongoing support is essential if the student is to be a full member of the class, rather than only physically included. Mitchell's team provides one example of the positive effects of such a process.

The activities described in this article came about as a result of a grant from the U.S. Department of Education, Office of Special Education and Rehabilitation Services. Project PRESS (Preparing Educators of Students with Severe Disabilities) is aimed, in part, at helping teachers from rural areas improve their skills in working with students with severe disabilities.