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Collaborating to Teach Students With Mild to Moderate Disabilities in the Inclusion Classroom

VIGNETTE WITH MARIE

Marie has just started her first teaching job at Anyplace Elementary School, and has been assigned to teach third grade. She begins preparing for the year by ensuring her classroom is well stocked with materials and supplies to engage her students in some quality hands-on/minds-on science like she learned in college. When she receives her class roster and student information, she is surprised to see the number of students who have special learning needs. Although she had some college courses and limited clinical experiences that dealt with this, the assignment now seems almost overwhelming. Marie loves science, but feels she needs some help because her science background simply won't be enough to meet the needs of all these students. The IEPs are of some help, but she's not sure exactly what she can do to meet all the specified requirements detailed in them. Fortunately, Marie has befriended a colleague, Tanya, who is one of the special education teachers. The two decide that some collaboration will be helpful, and the results should be beneficial for Marie's students. Marie's immediate questions are, "Exactly what does collaboration entail?" and "How can I make it work?"

STUDENTS WITH MILD TO MODERATE DISABILITIES AND INCLUSION

There are more than six million students with special needs being educating in preK–12 schools in the United States. That means about one out of every ten students in classrooms across the country can be labeled *exceptional* (Kirk, Gallagher, Coleman, & Anastasiow, 2009). These students may have any number of special needs including but not limited to learning disabilities, emotional or behavioral disorders, attention deficit disorder, cognitive disabilities, and autism. This group of special education categories is often referred to as mild to moderate disabilities.

Students with mild to moderate disabilities are a heterogeneous group of individuals all with unique learning and behavioral differences. However, as many teachers, parents, and other professionals come to discover, most of these students are more like their typically developing peers than they are different. Many simply need some adaptation or modification to the curricula, teaching materials, or special management strategies in order to perform up to their highest potential achievement levels.

The Individuals with Disabilities Education Act of 2004 mandates that students with special needs be educated in the *least restrictive environment* (LRE). The LRE is defined as the educational setting which best meets a student's individual learning needs while being educated with students without disabilities to the greatest extent possible (Rosenberg, Westling, & McLeskey, 2008). Inclusion is a process for providing education to students with mild to moderate disabilities in the general education classroom along with whatever necessary academic or behavioral *supports* they need to be successful. Supports may be in the form of curricular adaptations or modifications, a paraprofessional, special equipment, or assistive technology.

Students may have inclusion classes scheduled for any part of the day up to and including the full school day. Prior to placement in inclusion classes, students with mild to moderate disabilities should be prepared and capable to successfully handle the academic and behavioral expectations of the inclusion classroom when provided with their necessary supports.

The Institute for Education Sciences (IES), under the U.S. Department of Education, indicated in a national survey from the fall of 2007 that 95 percent of students with special needs are educated in inclusion classrooms for some part of the school day (IES, 2007b). Another report from the IES stated that during the 2004–05 school year, 50 percent of students with special needs spent 80 percent or more of their school day in inclusion classrooms (IES, 2007a). Most general educators, then, will have students with special needs in their classrooms. With this, the process of collaboration between general and special educators has been suggested as an effective means of educating all students in inclusion classrooms (Friend, 2005; Friend & Cook, 2007).

TEACHER COLLABORATION

When working with students who have mild to moderate disabilities in inclusion classrooms for science education, special education teachers and science teachers may work together, or *collaborate*, to teach students with and without disabilities. Friend and Cook (2007) provided the following definition for collaboration:

Interpersonal *collaboration* is a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal. (p. 7)

Collaboration in inclusion classrooms is an equitable process where teachers value the importance of sharing educational responsibilities for students with and without educational disabilities. Friend (2005) related that effective collaboration is dependent on a foundation of trust, respect, and shared responsibility for all students' educational achievement. Teachers' approaches to collaboration continually evolve as they learn more about working together. The educators involved in collaborative teaching must perceive each other as equal professionals and understand that they can learn from each other. They cooperate to plan the entire teaching process including preparing class lessons, sharing materials and resources, co-teaching the lessons while managing the inclusion classroom, and making decisions about assessment of common goals for teaching and for student learning.

All of these components emphasize the ongoing developmental cycle of collaborative teacher relationships. As with any type of successful partnership, educators must understand that establishing effective collaborative relationships is an activity that requires commitment and a strong belief in the importance of the process. For example, collaboration usually begins with two professionals who are coworkers but have little knowledge of each other's philosophies, teaching methods and skills, and goals. In order to establish positive collaborative relationships, both parties must work together to plan their collaborative activities and take specific action to maintain the collaborative process in an inclusion classroom. While effective collaborative relationships take a great deal of time and personal commitment to establish, an important result of those efforts is the increased academic success and progress of students with mild to moderate disabilities in inclusion classrooms.

TEACHING PHILOSOPHY

Research has shown that teachers who carefully plan and consistently implement their own *professional conceptual framework* have a positive influence on student achievement in the classroom (Rosenberg et al., 2008). Professional conceptual framework is described as the teacher's plan for the curriculum and total classroom management. This boils down to *what to teach* and *how to teach it*. Meticulous planning of curriculum along with individual lesson plans, activities, and lesson materials; and proactive classroom management are all important components of a teacher's professional conceptual framework.

Another concept related to teaching philosophy is called *personal teaching efficacy*. This perception is a key component in overall teacher effectiveness and successful student learning outcomes. Personal teaching efficacy is defined as the teacher's faith in his or her own ability to have a positive impact on the learning and behavior of all students.

In order to be able to teach compatibly in the inclusion classroom, teachers in collaborative partnerships need to share their ideas related to their teaching philosophies. Being a teacher is not an easy job. When times get tough and difficulties arise, collaborative teachers who have discussed their ideas related to professional conceptual framework and personal teaching efficacy may have an easier time solving problems and maintaining a compatible partnership.

COLLABORATION AND COMPATIBILITY

General compatibility is another factor that can affect the collaborative partnership. An assessment instrument called the *Co-Teacher Relationship Scale* (CRS) (Friend & Cook, 2007) presented a number of factors that emphasize the importance of communication and cooperation when co-teaching in an inclusion classroom. The purpose of the CRS was to measure the degree to which co-teachers believed they were the same or different in their beliefs and philosophies about professional conceptual framework and personal teaching efficacy. The co-teachers who believed that their philosophies, values, and beliefs about teaching were more like their co-teacher than different achieved higher scores on overall program quality measures. The following concepts from the CRS were considered to be important points of agreement between co-teachers for successful collaboration:

- Philosophy related to curriculum, assessment, and teaching style (professional conceptual framework)
- Beliefs about the developmental learning process
- Adaptations and modifications of teaching materials to improve student achievement
- Parent involvement and collaboration
- Proactive behavior management methods
- Effective communication

Effective communication skills are critical for co-teachers who share teaching and behavior management responsibilities. Verbal communication is the primary mode of interaction and information sharing during collaboration. Co-teachers need to use open, honest, and direct communication methods that convey information clearly to share their knowledge about the course content, classroom management, and behavior management methods. Teachers who build an effective partnership learn to trust and respect each other's professional skills and abilities and this allows both teachers to expand and improve their own personal teaching skills.

CO-TEACHING

Collaboration is based on sharing ideas and strategies in a professional manner with a focus on meeting the diverse and unique needs of all students. The teachers must be able to productively communicate and work together.

Co-teaching, a common form of collaboration for general and special education teachers, involves two or more teachers who share a classroom and teaching responsibilities for a heterogeneous group of students. Co-teaching requires cooperation in planning, presenting the lessons, assessing student learning, and problem solving. Many teachers are asked to co-teach in inclusion classrooms, but are not provided with any guidelines or specific direction on how to go about the process. Following are suggestions for teachers interested in getting started with co-teaching.

Suggestions for Co-Teachers

1. Obtain administrative support for the co-teaching venture. Administrative backing is vitally important because the teachers may need additional planning time for preparing lessons, modifying and adapting lesson materials, evaluating lesson outcomes, and learning about each other's teaching style and philosophies.
2. Brainstorm co-teaching lesson ideas and pick one. Begin with simple lessons to allow co-teachers to build their comfort levels before tackling more involved lessons.
3. Carefully plan how to share teaching, paperwork, and behavior management responsibilities for each co-teacher. Be sure all materials are modified, adapted, and prepared for optimal learning for all the students in the inclusion classroom.
4. Collaboratively teach the lesson. Demonstrate the equal status and shared teaching responsibility of co-teachers to the students.
5. Evaluate the lesson upon completion, providing feedback and reflection in a constructive manner. Note what worked and what needs to be revised.
6. Plan the next co-teaching lesson, making necessary changes and improvements.
7. View co-teaching as a strategy that can continually evolve over time. Focus on improving content that teaches knowledge and skills, adaptations and modification of lesson materials, and behavior management knowledge and skills.
8. Remember to provide enthusiasm, positive reinforcement, and support to one another throughout the entire experience.

Using the co-teaching method, both teachers actively plan and teach the lesson. Students benefit from the combination of the talents and expertise of two teachers. With experience and reflection, co-teachers will find the methods that work best for them based on the curriculum to be taught and the needs of the students.

ACADEMIC AND BEHAVIORAL CHARACTERISTICS OF STUDENTS WITH MILD TO MODERATE DISABILITIES

Co-teachers in inclusion classrooms will need to communicate and plan for necessary curriculum and behavior management adaptations and modifications to provide the supports that will help students with mild to moderate disabilities achieve success in inclusion classrooms. Some students demonstrate a variety of academic and behavioral characteristics that interfere with learning and achieving in traditional science classrooms.

It is important for all teachers to remember that these students do want to learn and succeed at school. Their academic and behavioral problems are not intentional. Providing accommodations and making adaptations and modifications to lesson materials will assist these students to achieve at higher levels and show more appropriate behavior in the inclusion classroom. Illustrating these improvements, the collaborative pairs of science and special education teachers who participated in the original revising project upon which this book is based noted an interesting observation. They indicated that the adaptations and modifications made to science class materials and assessments not only benefited the students with mild to moderate disabilities, but also made the learning process more effective and efficient for all the students in the science inclusion classrooms.

COGNITIVE AND SOCIAL CHARACTERISTICS

Expressive and Receptive Language

Many students with mild to moderate disabilities experience difficulties with *expressive* and *receptive language*. Expressive language relates to an individual's ability to speak coherently and receptive language relates to comprehending spoken language. For a lot of these students, processing verbal communications from the teacher is significantly slower than that of their peers (Jordan, 2006). If the teacher asks a question, the student may need extra time to process the question before he can begin to process the response or answer. Because of the *time lag in processing the question* and the time lag in processing an *answer* to a question, by the time the student finally figures out a possible response, the teacher and the rest of the class have already moved on to the next question, which this student has missed entirely.

A teacher's understanding of the cognitive processing differences for students with mild to moderate disabilities has practical implications for a language-intensive topic like science. The cognitive and social characteristics typical of these students often make it difficult for them to adequately complete traditional paper and pencil tasks and assessments. Science has customarily been taught using lectures, verbal descriptions, and explanations supplemented by demonstrations and lab activities. Adapting and modifying curriculum materials and assessments can provide the necessary support for the students to demonstrate science class competencies.

If a student has poor receptive language skills and is unable to effectively understand and remember the verbal information spoken by the teacher, she will not be able to show adequate learning progress or achievement. Hands-on classroom activities, and tasks based on a student's preferred learning style (verbal, auditory, or kinesthetic), will help her to more accurately demonstrate individual learning outcomes. Authentic assessments that focus on performance-based activities, which reflect class instructional tasks, help students demonstrate their knowledge and progress.

Attention Problems

Many students with mild to moderate disabilities also have problems with *selective attention* and *sustained attention* (Rosenberg et al., 2008). Selective attention refers to the student's ability to filter out unimportant noise and other distractions in the classroom and to focus directly and specifically on the teacher. Sustained attention is the skill of being able to maintain attention through completion of a given task or class period. The students may miss all or portions of directions and instructions due to these attention problems.

Jordan (2006) provided an interesting real-life example to explain the problem of sustained attention. He hypothesizes that these students *are* motivated to learn. At the start of the lesson, they "plug their plugs in" when the teacher calls for attention and begins the lesson. Then, because of their neurological processing problems, their "plugs" fall out like a vacuum cleaner's motor dies when the vacuum is pulled a little bit further than the length of the cord allows. If the prongs of the plug are pulled even just a little bit out of the electric socket to break the connection, the vacuum cleaner loses power. The same thing happens with students who have these processing problems. Through no fault of their own, the tenuous connection between the teacher presenting the concepts of the lesson and their brain comprehending the material is broken.

An additional processing difficulty relates to how the students actually comprehend verbal presentations and directions. Because of the difficulty they have with listening for details, they may not catch all the fine points of the directions or may miss whole words or parts. It is suspected that they often miss as much as two of every three words spoken by the teacher (Jordan, 2006). These processing problems may be observed in students who have attention and memory problems. Consequently, these students may not understand or remember what they hear.

Memory Skills

Many students with mild to moderate disabilities have poor memory skills. In particular, their short-term memory does not function as effectively as it should. As a result, they have difficulty remembering information they learned. This memory problem is called *encoding*. The information is

not stored efficiently in their neurological memory banks. Because of this, when they need to go back and pick a concept or idea out of their memory bank, they can't do it. It's almost like the information in their memory banks is scrambled, rather than neatly and logically organized. Due to the encoding problems, students may not be able to respond to simple comprehension questions following extensive instruction.

To help students cope with memory deficits, teachers need to frequently review important points of the lesson, elaborate on pertinent details, model methods and strategies, and frequently check for understanding. In addition, teachers should offer memory strategies within the lesson structure to help all students remember important concepts.

Performance Inconsistency

Students with mild to moderate disabilities seem to have good days and bad days at school. Some days they just seem to be able to remember facts and information better than they can on other days. Unfortunately, many are punished for their bad days. The students are accused of being lazy, apathetic, unmotivated, and uncaring. Ironically, they are also often punished for their good days as teachers comment that they can, after all, achieve when they "really try." Mel Levine, a pediatrician who specializes in research and treatment for children who have learning and behavioral disorders stated:

It will be a great day when we recognize performance inconsistency as part of the learning disabilities profile, rather than as evidence for the prosecution. (Levine, 2003)

Levine further describes the good-day, bad-day phenomenon as a disruption in the flow of mental energy (see also Gunther, Bieber, & Lavoie, 1997). Levine reports that an individual has no control over this. It is very discouraging for students who do their homework, study for tests, but then, cannot produce knowledge or information on demand when they need it. Performance inconsistency happens to students with mild to moderate disabilities over and over in their daily lives. It is frustrating for them as well as their teachers.

Social Characteristics

Students with mild to moderate disabilities present a unique social profile that sets them apart from their typically achieving and developing peers. As a direct result of their disabilities, these students may show poor peer relationships, emotional instability, impulsivity, and low self-concept and poor self-esteem. The daily life problems experienced by students with mild to moderate disabilities can be so frustrating that many students develop and then demonstrate behavioral and emotional disorders that are triggered by various situations at home, at school, or in the community. Their behavior often interferes with expected academic achievement at school. The average sixth grader with mild to moderate disabilities may already be two years behind academically (Rhode, Jenson, & Reavis, 1992).

All of these social characteristics have the potential to negatively affect the student's motivation and progress in school. Teachers often misinterpret the behavior problems as evidence suggesting that the students are being willfully noncompliant, defiant, or that they just don't care (Jensen, 2005). This is not necessarily the case. These students may not be able to express their thoughts and feelings effectively. Teaching structured social skills classes such as *Skillstreaming* (Goldstein & McGinnis, 1997) can be of great practical benefit to students who have social skill deficits.

Jensen (2005) provided a set of proactive suggestions for positively focused behavior management. These strategies are structured for teachers to help students learn what to do to be successful:

1. Be proactive in setting up the classroom management. Set realistically high standards for behavioral and academic expectations to help more students learn to be successful.
2. Establish rules and expectations for appropriate classroom behavior. Teach, post, and review the classroom expectations to help students remember. They have to understand precisely what is expected to be able to follow through.

Figure 1.1 Student Behavior Checklist

Student Name: _____ Date: _____ Time: _____

Please check yes or no to indicate the student’s current behavior.

The student:

- | | | |
|---------------------------------------------------------|------------------------------|-----------------------------|
| 1. Is in assigned seat | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Has all required materials | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Is quiet and ready to listen | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Works consistently on the assigned task | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Works independently on the assigned task | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Follows directions consistently during class | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Uses appropriate language | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. Works cooperatively with peers | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 9. Shows appropriate behavior and attitude with teacher | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 10. Has homework completed on time | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Other specific behaviors for this student:

- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____

Use a minimum of ten behaviors to compute the percentage of behavioral compliance using the following formula:

$$\begin{aligned} & \text{Total marked Yes (_____) divided by (Yes + No _____)} \times 100 \\ & = \text{Percent of Compliant Behaviors _____ \%} \end{aligned}$$

Comments:

(continue on back or another page as needed)

3. Use functional behavioral assessment to identify priority problem behaviors for each student and teach new target behaviors to help them learn appropriate skills and to be more successful. Teach and give positive reinforcement for new appropriate target behaviors rather than simply punishing old problem behaviors.
4. Consistently use positive reinforcement to teach students new target behaviors. The main idea is to pay more attention to appropriate behaviors. Rule of thumb: The behaviors the teacher pays the most attention to in the classroom tends to increase. Focus, then, on the positive.
5. Use verbal praise and activities, and extend privileges that are academically and socially beneficial for positive reinforcement.
6. Collect data consistently to monitor student behavior. Graph results. Troubleshoot and revise when necessary.
7. Teach students self-management skills so that they can assess, monitor, and reward their own behavior. Self-management helps students to internalize and generalize their new target behaviors. This will help the students to become more successfully independent and less reliant on the teacher.

Student Behavior Checklist

One of the primary benefits of retooling science activities for students with mild to moderate disabilities is the increase in academic achievement and appropriate social behavior that occurs when the students are actively engaged in learning science concepts with materials adapted to meet their individual learning needs. As students become more motivated and engaged in learning, they naturally experience increased academic achievement and success in inclusion classrooms.

Sometimes it is difficult for teachers to objectively determine changes in students' behavior. For data collection, a simple student behavior checklist (adapted from Rhode et al., 1992) may be helpful. Results of the checklist can provide teachers with an ongoing picture of a student's academic and social behavior progress.

The checklist (Figure 1.1) can be used daily or weekly to collect samples of a student's behavior. The teacher may use the checklist in the beginning of the observation period for several days to establish a baseline or representative sample of the student's activities. Then, weekly or biweekly observations allow the teacher to compare baseline information to current behavior to determine if the student is functioning effectively in the classroom. Because this is a simple checklist of typical classroom behaviors, the teacher only needs a few minutes to complete it during the class while the student is there. The teacher could also make a weekly graph of this data for comparisons.

CONCLUSION

One of the significant themes of this chapter is the importance for teachers to work together to address the needs of their students. Another purpose of this chapter is to provide a primer, of sorts, about the characteristics of a number of learning needs teachers will find in students in today's classrooms. The idea of teamwork, whether through some form of collaboration, through co-teaching, or some other mechanism, is critical if successful science instruction and learning are to be achieved in mainstreamed classrooms. Many teachers prepared for teaching science are not experts in special education, and many special education specialists are not experts in teaching science. A major focus of this book, then, is how teachers can make science more accessible to their students who have special needs, and a key to achieving that is for everyone involved to work, plan, and deliver together as a team, doing what is best for each child.