Let’s end the debate about whether to include students with severe disabilities in the general education classroom (see box, “What Does the Literature Say?”). Let’s focus on how and when and where. This article provides helpful perspectives and suggestions for teachers, students, and parents in the struggle to provide an appropriate education for all students.

Here, we provide a cascade of integration options for inclusion. These integration options are based on the work of many researchers (Bradley, King-Sears, & Tessier-Switlick, 1997; Giangreco, Cloninger, & Iverson, 1998; Janney & Snell, 2000; Stainback & Stainback, 2000).

In these options, we have applied content area instruction to inclusive settings, using a case example. We have also outlined a system designed to facilitate collaborative planning between general and special education teachers, using a student’s individualized education program (IEP) as a foundation for decision making. Use of the IEP ensures that educational programming is both individualized and integrated with the general classroom curriculum.

The Cascade of Integration Options

The Individuals with Disabilities Education Act (IDEA) promotes the concept of placement of students with disabilities into the least restrictive environment (LRE). The concept of LRE is based on the belief that educators must provide a range of placement options (Mastropieri & Scruggs, 2000; Thomas & Rapport, 1998). A cascade of placement options can range from the home-school and general education class setting to institutional placements. This cascade of services highlights the need to individualize and base decisions for placement on the student’s unique needs.

As noted, schools and districts are placing more students with severe disabilities in general education settings. But placement alone is insufficient to guarantee that the student with disabilities will benefit educationally. The optimal integration option is based on two factors:

- The type of activity undertaken in the general education setting.
- The objectives stated on the student’s IEP.

Decisions about including a student with severe disabilities are frequently oriented toward fitting the student into the existing general education classroom activities and focus primarily on social integration (Scruggs & Mastropieri, 1996). The social integration focus negates the opportunity for the “included” student to receive instruction in content areas. Although we acknowledge the value of social integration, we advocate that programming should emanate from the student’s IEP objectives. Teachers should consider content area coursework as a means by which the student may meet his or her IEP objectives. For example, teachers can address many objectives from the IEP in the general education setting by considering a range of adaptations and accommodations.

The Cascade of Integration Options illustrates a range of accommodations for students with severe disabilities who are included in general education settings (see box, “Cascade of Integration Options”). This cascade includes the following poles:

- The least restrictive inclusion option in which no changes are made (unadapted participation in the general education curriculum).
- A more restrictive option in which students with severe disabilities are temporarily removed from the setting (functional curriculum outside the general education classroom).

The cascade also includes a series of questions designed to help educators make decisions concerning the most appropriate integration options during content area instruction.

The social integration focus of inclusion negates the opportunity for the student with disabilities to receive instruction in content areas.
What Does the Literature Say About Inclusion for Students With Severe Disabilities?

The inclusion of students with severe disabilities into general education classrooms has become increasingly prevalent (Katsiyannis, Conderman, & Franks, 1995; Sailor, Gee, & Karasoff, 2000; U.S. Department of Education, 2000). Although IDEA ‘97 does not mandate the inclusion of students with disabilities, the legislation strongly encourages consideration of appropriate placement in general education settings.

Definition. The term inclusion has many interpretations. We have adopted the definition of inclusion noted by Mastropieri and Scruggs (2000) in which students with disabilities are served in the general education classroom under the instruction of the general education teacher. Specifically it involves providing support services to the student in the general education setting versus excluding the student from the setting and their peers. Inclusion requires the provision of adaptations and accommodations to classroom curriculum to ensure that the student will benefit from the placement. The definition, however, does not require that the student with special needs perform at a level comparable to peers without disabilities.

Benefits of Inclusion. Many research studies have shown that the inclusion of students with severe disabilities into general education settings is beneficial for all students (those with and without disabilities) particularly in relation to social acceptance, self-esteem, and social skills (Kennedy, Shukla, & Fryxell, 1997; Mu, Siegel, & Allinder, 2000). Although some research has indicated academic gains, teachers are more challenged to appropriately include students with severe disabilities in the content areas (Heller, 2001). Content domain areas include social studies, sciences, health, and related academic subjects.

Role of the IEP. Given that the goal of inclusion is to assure that all students benefit from instruction, educators must provide programming that meets the needs of all students including those with disabilities. For students with disabilities, the IEP serves as the document to guide program planning and instruction. Educators should use the IEP to determine what should be taught, how the content should be taught, and who can most appropriately provide instruction.

Roles of Professionals. There are many professionals involved in providing services for students with severe disabilities in included settings. Two frequent members to this team of professionals are the general education and special education teachers. The collaboration of these teachers is essential to assure that the student with disabilities is successful in the placement both socially and academically (Jackson, Ryndak, & Billingsley, 2000; Salend, 2001; Salisbury, Evans, & Palombaro, 1997; Snell & Janney, 2000). Both teachers need to be aware of the student’s IEP objectives and use this document to guide program planning decisions and data collection procedures. To meet the needs of students with disabilities in the general education classroom, changes in the curriculum may be necessary.

Collaborative Planning for Inclusion

As noted previously, the collaboration of educators involved with the student having severe disabilities is essential to ensure appropriate integration and educational programming. Special and general education teachers must share knowledge about teaching strategies when planning effective instruction. Through collaborative teaming, teachers set the stage for student achievement of goals.

We have identified two stages of planning for special and general education teachers when considering options for content area integration. Table 1 lists these stages as preplanning and collaborative planning activities.

- In the preplanning stages, the general education teacher reflects on the content area unit activities and conducts a task analysis to identify key components of the lessons. Once the general education teacher has identified components of the unit, the special education teacher is asked to reflect upon the individual student’s IEP objectives and how those objectives can be addressed in the general education classroom.

Cascade of Integration Options

Unadapted participation in the general curriculum
Same activities, same objectives, same setting
- Can student complete the activities as written for the general education classroom?
- Do one or more lesson objectives match the student’s IEP?

Adaptations to the general curriculum
Same activities, different (related) objectives, same setting
- Can the student meet the lesson objectives with minor modifications (time, response mode)?

Embedded skills within the general curriculum
Similar activity, different (related) objectives, same setting
- Are there components of the activity that can be met by the student, even if not the central objective of the lesson but match an IEP objective?

Functional curriculum in the general education classroom
Different activities, different (related) objectives, same setting
- Are the class activities greatly unrelated to the student’s IEP? Are there IEP objectives that could be met in the same setting?

Functional curriculum outside general education classroom
Different activities, different (unrelated) objectives, different setting
- Are the class activities greatly unrelated to the student’s IEP? Are IEP objectives better met in a different setting (require equipment, repetition, etc.)?
Table 1. Stages of Planning for Curriculum Adaptations for Student With Disabilities in General Education Settings

<table>
<thead>
<tr>
<th>Preplanning</th>
<th>Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Education Teacher</strong>&lt;br&gt;Unit Plan Analysis</td>
<td><strong>General and Special Education Teacher</strong>&lt;br&gt;Planning Meeting</td>
</tr>
<tr>
<td>What are the objectives of my lessons?&lt;br&gt;* What is the purpose of the unit?&lt;br&gt;* What skills do I want students to obtain?</td>
<td>Based on the unit analysis, what IEP objectives can be worked on during content area instruction?</td>
</tr>
<tr>
<td>What are the steps students must undertake to complete the unit?&lt;br&gt;* What are the component activities within the series of lessons? (list in order)</td>
<td>What adaptations or accommodations will be required to work on these objectives?</td>
</tr>
<tr>
<td>* Do the activities directly relate to the overall objective of the unit?</td>
<td>What other supports will the general education teacher need to successfully complete the activity?&lt;br&gt;* Teaching assistant present&lt;br&gt;* Adaptive equipment&lt;br&gt;* Technical support&lt;br&gt;* Materials adaptations&lt;br&gt;* Co-teach with special education teacher</td>
</tr>
<tr>
<td>* Are the steps logically sequenced?</td>
<td>Are the student’s IEP objectives being addressed in this unit in a meaningful way?</td>
</tr>
<tr>
<td>Will completion of the unit include individual and/or group activities?&lt;br&gt;* Cooperative Learning Groups&lt;br&gt;* Individual&lt;br&gt;* Group activities&lt;br&gt;* Individual and Group</td>
<td>How will teachers communicate about student progress throughout the unit?&lt;br&gt;* Informal discussion&lt;br&gt;* Weekly meetings&lt;br&gt;* Report from assistant&lt;br&gt;* Communication journal</td>
</tr>
<tr>
<td>What learner products are expected?&lt;br&gt;* Written report&lt;br&gt;* Oral Report&lt;br&gt;* Tests&lt;br&gt;* Computer Question&lt;br&gt;* Concept maps/ graphic displays</td>
<td>How will progress toward attainment of IEP goal(s) be assessed?&lt;br&gt;* End-of-unit test&lt;br&gt;* Rubric&lt;br&gt;* Performance or subjective evaluation</td>
</tr>
<tr>
<td>What is the time frame to complete the activities for this unit?&lt;br&gt;* Single day&lt;br&gt;* Monthly&lt;br&gt;* Weekly&lt;br&gt;* Bimonthly&lt;br&gt;* Longer term</td>
<td>content area unit. This stage is a thinking or reflection activity before a meeting; or the teachers could hold a face-to-face meeting to think together.</td>
</tr>
<tr>
<td>What are the required materials for the activities and/or unit?&lt;br&gt;* Resource materials&lt;br&gt;* Class text&lt;br&gt;* Computer internet&lt;br&gt;* Misc. materials (school, home)</td>
<td><strong>In the collaborative planning stage,</strong> the two teachers meet to determine the most appropriate integration options in relation to the IEP, what adaptations or accommodations will be required, what additional supports are needed, and how student progress will be monitored (see Table 1).</td>
</tr>
<tr>
<td>How will student progress be assessed throughout the unit?&lt;br&gt;* End-of-unit test&lt;br&gt;* Rubric&lt;br&gt;* Performance or subjective evaluation</td>
<td>Case Study of Collaborative Planning&lt;br&gt;Table 2 shows a case example of the Cascade of Integration Options in operation, as educators implement accommodations for a student included in content area instruction. The example reflects the plan for a student named Billy, who is included in a sixth-grade classroom.</td>
</tr>
<tr>
<td></td>
<td>Billy’s IEP contains instructional objectives in a variety of domain areas, including communication, functional academics, socialization, fine and gross motor skills, hygiene, and leisure and</td>
</tr>
</tbody>
</table>

The social integration focus of inclusion negates the opportunity for the student with disabilities to receive instruction in content areas.
<table>
<thead>
<tr>
<th>Preplanning</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
</table>
| Activity    | Assign to one of three map groups.  
- Political map  
- Geographic map  
- Natural resources map  
Start research for map information.  
30-minute library time. | Continue research.  
Draw the map on 3’x5’ poster board, include scale, legend, major cities, and landmarks.  
Each student must draw and color a minimum of 10 features for specific map in appropriate location.  
1-hour map making. | Continue map making:  
Draw the map on 3’x5’ poster board, include scale, legend, major cities, and landmarks.  
Draw or color features for specific map in appropriate location.  
1-hour map making. | Final map construction.  
Preparation for oral presentation.  
Division of speaking roles. | Three groups orally present maps to class. |
| IEP Objective | Communication: Initiate conversation about map with group members using communication device.  
Functional Academics Reading: Identify parts of newspaper for peers to find map information.  
Social Skills: Take turns interacting with peers during research; maintain appropriate personal space.  
Gross Motor: Manipulate wheelchair to and within library. | Fine Motor: Cut out three pictures that represent resources on the map with adaptive scissors.  
Functional Academics Math: Count the number of resource features group members made (10 each).  
Communication: Initiate with peers if ready for them to count if number of items is correct using communication device. | Fine Motor: Paste the three objects on the map.  
Functional Academics Reading: While students are completing research information for presentation, student uses newspaper to identify leisure activities (movie section, TV guide).  
Leisure: Select preferred leisure activity for the weekend.  
Functional Academics Math: Practice time-telling in preparation for group presentation, day 5. | Functional curriculum in the general education classroom. Different activities, different objectives, same setting. | Communication: Introduce members of the working group to the class using communication device.  
Functional Academics Math: Keep time for the group. Notify members when half-hour period is over. |
| Planning | Embedded skills within the general curriculum. Similar activities, different objectives, same setting. | Adaptations to the general curriculum. Same activities, different objectives, same setting. | Adaptations to the general curriculum. Same activities, different objectives, same setting. | Functional curriculum in the general education classroom. Different activities, different objectives, same setting. | Unadapted participation in the general curriculum. Same activities, same objective, same setting. |
| Support from Special Education Teacher | Co-teach presentation of the map assignment to class.  
Needed technical support. | Provide adapted scissors to general education room.  
Provide enlarged pictures for student to cut.  
Needed technical support. | Needed technical support. | Needed technical support. | None. |
The teachers formed their instructional plan based on Billy’s IEP objectives. The teachers collaboratively determined how they could meet many of Billy’s IEP objectives within the content area of social studies.

As Table 2 illustrates, the integration option varies across the activities and days of the instructional unit. Further, note that the teachers considered the need for additional support to implement instruction (adaptive equipment, additional personnel, technical support). In this case Billy was able to work on nearly all of his IEP objectives in the content area unit. The one exception is Billy’s IEP objective related to hygiene; for programming related to showering and shaving, Billy is temporarily removed from the general education setting (functional curriculum outside the general classroom conducted during an adapted physical education class).

As Table 2 shows, teachers used a variety of integration options. Through the use of integration options, Billy was able to obtain instruction on important IEP objectives even though he did not always work on the general education social studies outcomes. Further, by employing the Cascade of Integration Options, Billy’s teachers were able to provide Billy with the following:

- Social skills practice.
- Instruction on social studies information.
- Instruction on IEP objectives that focused on Billy’s needs.

Although this article focuses on the case of Billy, educators can apply the Cascade of Integration Options with most students and areas of instruction, throughout the school year. Critical to the successful application of the Cascade is a well-designed IEP with clearly stated instructional objectives.

**Final Thoughts**

Inclusion of students with disabilities requires the provision of curriculum and classroom adaptations. But inclusion does not require that the student with special needs perform at a level comparable to peers without disabilities. Students with disabilities may be included during content area instruction if teachers consider the Cascade of Integration Options.

If teachers collaborate to employ such options through carefully planned instruction, they can include students with severe disabilities in general education settings in meaningful ways—for all students.

**References**


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