Mainstream Consultation Agreements in Secondary Schools

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With implementation of the due process procedures outlined in Public Law 94-142, mainstreaming of students with handicapping conditions has become an important and prominent topic. Probably the most difficult mandate of this legislation is placement of students in the least restrictive environment (LRE). Providing definition to this phrase is problematic, operationalizing procedures for accomplishing it are questionable, and evaluating the success of such efforts is often lacking. Our purpose in this chapter is to provide a systematic strategy for placing middle and high school students with mild handicaps (MH) in the LRE. We assume that the mainstream content classes represent the LRE and only with data to indicate the lack of success with supplemental support should more invasive (i.e., special education) strategies be considered.

The law, both state and federal, is quite direct in its prescriptions: To the extent that there are no detrimental effects, children who are handicapped shall attend regular classes to be educated with children who do not have handicaps. A handicapped student shall be removed from a regular educational program only when the nature or severity of the handicap is such that education in a regular educational program cannot be accomplished satisfactorily. Furthermore, there must be an indication that the student will be served better outside of the regular program. The needs of the individual shall determine (a) the extent to which the student will be able to participate in mainstream regular educational programs, and (b) the type and amount of special education and related services provided to the student.

To date, educators have lacked a database to identify potentially successful or unsuccessful mainstreaming candidates. As a result, placement of handicapped students in regular education has been haphazard at best (U.S. Department of Education, 1989). For a mainstreaming program to be successful, the following conditions should be in place (Salend, 1984):

1. Criteria are used for assaying a student's readiness to be mainstreamed.
2. Handicapped students are prepared for entering mainstream environments.
3. Students in the mainstream environment are prepared to receive a handicapped student.
4. Communication among educators is planned and implemented.
5. Student progress is monitored regularly.
6. In-service staff development is provided.
Although special education teachers often believe their students should be spending more time in the mainstream classroom, students' lack of skills often prevent them from such participation (Halpern & Benz, 1987). Low achievement appears to be very characteristic of secondary learning-disabled (LD) students. In basic skills such as math (word problems, graph reading, geometry, and algebra), vocabulary (synonyms), reading (literal and inferential questions based on a short passage), and tests of pattern recognitions, these students are often significantly lower than their regular education cohorts (Gregory, Shanahan, & Walberg, 1986). They typically have attained mastery on few mathematics skills; large percentages of these students fail minimum competence examinations on skills that employers deem critical (Algozine, O'Shea, Crews, & Stoddard, 1987).

Given MH students' lack of essential basic skills to maintain involvement in the content area class, instruction often is tutorial and is delivered by the special education (SE) teacher. Yet many SE teachers lack appropriate training to provide instruction in specific content area classes. It is presumed, therefore, that such programs are better provided by the content area specialists (e.g., regular education instructors in history, science, English).

In this chapter, we describe a program that attends to these issues in a systematic manner. The program, entitled mainstream consultation agreements (MCA) (Germann, 1986), is a procedure for general and special education teachers to work together in serving MH students in secondary mainstream content classes. MCAs are developed when special education students lack sufficient academic and/or behavior skills to succeed in the mainstream classroom without help. They define a system for identifying problems through a process of referral-assessment-placement and for developing programs by understanding and operationalizing teachers' expectations and ensuring the students' success. Outcomes are evaluated using student performance data to inform and make decisions, the responsibilities of everyone involved (students, parents, and teachers) being well delineated.

The MCA program incorporates the major tenets of behavior consultation:

1. It is premised upon the application of behavioral or social learning theory (Kratochwill & Bergan, 1978), in which the focus of consultation is more oriented toward problem solving than to the relationship between the consultant and consultee.

2. The goal of consultation is to increase desirable and decrease undesirable behaviors.

3. Four major phases are considered in the consultation process (problem identification, problem analysis, plan implementation, and program evaluation).

4. Responsibilities are based upon the consultant as an expert, although mutual problem solving may be emphasized. MCAs also incorporate several features of the special education resource teacher (SERT) program developed by Deno and Mirkin (1977). In particular, an emphasis is placed on time-series evaluation to develop data-based instruction, which includes direct instruction in basic skills and indirect instruction in content areas.

AN OVERVIEW OF MAINSTREAM CONSULTATION AGREEMENTS

Mainstream consultation agreements are composed of three major components. First, minimum essential learner outcomes (MELO) are identified; second, responsibilities are allocated to all individuals implementing the agreement; third, measurement systems are established to document individual educational plan (IEP) goal attainment and provide frequent feedback. These three components are integrated into a communication and monitoring system that informs teachers of students' performance and helps determine appropriate interventions or support services in the mainstream classroom. Each of the components is defined carefully in the agreement so that when modifications are deemed necessary, a specified component of the
original agreement can be readily identified and altered.

The six functions outlined by Salend (1984) are embedded in the major components of MCAs. First, teacher standards and expectations are considered in determining if students are ready for mainstreaming, and if so, the kinds of adaptations needed to ensure success. Second, preparation of handicapped students (and to a less extent, nonhandicapped students) for classroom integration is based upon specific roles and responsibilities set in the course of consultation. Furthermore, frequent contact between teachers and open, yet focused, communication is included in the established consultation relationship. Third, systematic measurement and evaluation of the students' progress is incorporated into the system. Although staff development is not an explicit part of the MCA while in operation, it does occur when general education teachers take part in materials development and curriculum adaptation in a summer work session, which we describe later.

MCAs provide very specific procedures for delivering specialized programs in mainstream classrooms, but they are clearly a service delivered through special education, specifically, special education resource room teachers or school psychologists who serve as case managers. MCA programs are provided to regular education teachers, the target for behavior change being the handicapped student. Individual education plans are the medium by which MCAs are developed; they emphasize the accommodations to be made in teaching the regular education curriculum. Such a system eventually is used to assist regular education teachers in implementing data-based program modifications in their classrooms to increase the probability of a handicapped student's success. Therefore, both the regular and special education teachers are the implementors of the IEP.

The Problem-Solving Focus

As noted by Ysseldyke et al. (1984), once students are referred for special education, there is a very high probability that they will be assessed and eventually placed. Most decision making in special education programs operates from a referral-to-placement perspective, rather than a referral-to-intervention perspective.

Presently, few contingencies exist for keeping students in mainstream classrooms. MCAs are procedures for maintaining the focus of decision-making on instruction rather than placement. For example, if an 11th-grade history teacher has a very low-performing student in class, a referral to special education is likely to result in placement. The assessment process does not focus on the teacher's accommodation of the student in the history class. Once a placement in special education is made, the student receives history on a tutorial basis. Again, no accommodation is made for delivering content instruction by the content expert, the general education teacher.

Using MCAs, however, we are rearranging the problem-solving system to better accommodate instruction in the mainstream class. We assert that this accommodation can succeed if we can better determine the student's performance and teacher's expectations for success, establish in very clear terms what has to be done and who has to do it, and finally, ensure that all decisions are data-based, using student progress as the key indicator of the need to maintain or change programs. The process is composed of three basic steps: (a) determining who should be served, (b) allocating roles and responsibilities, and (c) monitoring and evaluating student progress. All assistance is predicated upon accurate and functional student and classroom assessments and clear assignment of expectations and responsibilities among special and regular education staff.

Determining Eligible Candidates

The first step is to identify students for whom MCAs are a viable option. Conceivably, all handicapped students of secondary school age attending general education classes are eligible. At least
part-time participation in general education is sufficient for an MCA to be considered. However, for special education students attending school and not enrolled in any general education classes, MCAs are not an option.

The second step is to determine whether the student is being evaluated in his or her mainstream classroom. If the IEP includes mainstream content classes that the student is required to attend and from which an evaluation will be made in the form of a report card grade, then MCAs are considered as an optional service. For students not receiving a grade on a report card, there is no need to develop an MCA. For example, students may attend classes during study hours or off-school hours, or audit classes, in which attendance is voluntary and they are not required to perform according to any standards. In such a case an MCA is not needed, as no standards or evaluations of performance are in use.

Designing Individual Education Plans

In the third step, IEPs are developed to be responsive to the student's curriculum and behavior needs. These IEPs may be for basic skills and/or content areas. The decision hinges on whether a student's lack of basic skills prevents the student from being successful in the mainstream classroom. If the basic skill deficit precludes success, an MCA is not needed and the IEP is designed for basic skills alone; the student is then served in a resource room by a special education teacher. For example, if a 10th-grade student cannot functionally read (i.e., oral reading fluency is less than 15 words per minute), the basic skill deficit is so severe that success in the mainstream classroom is very unlikely.

However, a basic skills deficit potentially can impede, but not preclude, the student's success in the mainstream classroom; then an MCA is necessary. In the case of mild skills deficits, a determination is made whether to develop an IEP goal for every regular education subject in which the student is enrolled. At this point, the MCA is developed using the IEP format. The three components of an IEP (conditions of performance, relevant behavior exhibited, and levels of performance expected) should be established and formally written. Therefore, the student's skills must be documented and the teacher's expectations ascertained.

Assessing the Student Skill Level

The first task in writing an IEP is to adequately document student basic skills and current level of performance in the subject area. Although it is highly desirable to follow a competency-based approach, in which critical academic and social skills are identified and the student's proficiency is assessed (Hundert, 1982; Salend & Lutz, 1985), few measurement systems are currently available for documenting students' performance on content area mainstream classroom tasks. In elementary schools, curriculum-based measurement (CBM) has been well researched and utilized for making a range of educational decisions (Deno, 1985; Deno & Fuchs, 1987; Germann & Tindal, 1985; Tindal & Marston, 1986). Yet little parallel research has been completed with middle and high school students.

Ideally, academic assessments would help determine the degree to which a student's performance in the mainstream classroom is a function of basic skills deficits or behavioral/interactional deficits or excesses. The skills assessment would determine a special education student's relative standing vis a vis age- and grade-appropriate peers on curriculum-based assessments. To accomplish this type of assessment, norms from either the basic skills areas or the content area classroom would be established, and students appropriate for mainstreaming would be tested and compared against this level.

For example, in Pine County, a student had to demonstrate performance similar to that of students who were either 2 years younger (for 7th and 8th graders) or end-of-year 6th grade (for 9th through 12th graders). Alternatively, Tindal and Parker (1989) used a silent reading/written-retell procedure in content area material to document the range of per-
formance exhibited by regular education middle and high school students. In either case, such data provided a reference to determine if special education students were eligible for special education and had the requisite skills to be mainstreamed in a content area class.

Ascertaining the Expectations of Mainstream Teachers

Not only must the magnitude of basic skills deficits of the student be determined, but the particular demands of the classroom for success must be considered. Teachers' expectations are an important part of the classroom environment, particularly in regard to the manner in which the classroom is organized and the strategies used in its management. As a consequence, successful mainstreaming of students implies an accurate description of these expectations.

Many of these expectations or requirements for success are quite universal, representing the minimal essentials for participation. For example, Kerr and Zigmond (1986) found that, generally, special and regular education high school teachers have similar expectations about the skills deemed critical for the students to succeed in their classrooms. They also agreed on the behaviors that are intolerable in the classroom. Regular educators were more rigorous in their expectations and standards for classroom behavior, "especially in the case of deportment... A straightforward emphasis on self-control, good study habits, and teacher compliance comes through very clearly from the data on high-ranked items" (p. 247). Teachers from both groups emphasized the importance of a capacity at least to follow rules, listen to the teacher, and comply with teachers' requests and demands. The data from Kerr and Zigmond (1986) corroborate the findings of Walker and Rankin's (1983) survey of elementary school teachers. The findings from Salend and Salend (1986) are similar to those of Kerr and Zigmond (1986). In their survey of 334 secondary regular and special education teachers from New York and Pennsylvania, they found three functions as critical for successful performance in secondary-level mainstream settings: exhibiting appropriate work habits, respecting others and their property, and following school rules.

Although most of the attention in the professional literature has been on behavioral and interactional skills of students (Gresham, 1982; Hundert, 1982; Salend & Salend, 1986), teachers' expectations also include academic concerns. In the list of teachers' expectations developed by Wilkes, Bireley, and Schultz (1979), many of the top 21 items dealt with academic performance. For example, teachers expected students to have the following skills, listed with their ranking in parentheses: recognition of similar phonic sounds (6), possession of a method for word attack (12), adequate sight vocabulary (8), capacity to follow written instructions (9), comprehension and use of speech (10), adequate reading level (18), and minimal math skills (21).

These expectations, once established, can be used to define student success (defined as receiving a passing grade) in the MCA model. This grading policy can be used later to establish minimum essential learner outcomes once MCAs are developed.

At this point in the problem-solving process, an important decision must be made. With knowledge of a grading policy and the minimum expectations for receiving a passing grade, teachers can decide whether to (a) accept help from special education in ensuring the success of handicapped students in their classroom or (b) assume sole responsibility for ensuring such success.

The former decision (to develop an IEP for a particular class) signifies that a special education consultation is necessary to ensure the student's success in that class. In this case, the classroom teacher and the case manager share the responsibility for the handicapped student's classroom performance by developing a MCA with a corresponding IEP. The decision by the classroom teacher and case manager to share the responsibility for a handicapped student's success must
result in an IEP, including a specification of long-range goals and short-term objectives.

The decision not to develop an IEP for a particular class signifies that the classroom teacher does not require special education consultation to ensure the student's success in that class. In this case, the classroom teacher is assuming sole responsibility for the handicapped student's classroom performance. The IEP, then, is written to focus on basic skills instruction provided by special education alone.

If agreement between the general and special education teachers cannot be reached regarding the need for a MCA, the building principal makes the determination. Parent and student perspectives then need to be considered, in addition to the relationships among the educators in the building. In such cases, the consultation process needs to be mediated with an administrative decision, with primary consideration given to issues of due process and educational obligations for the handicapped student.

This entire decision-making process is depicted in Figure 1. Four different steps are considered, beginning with identifying an appropriate student population, proceeding to a determination of whether grading in mainstream classrooms occurs and whether a particular student's skill deficits preclude or impede success (receive a passing grade), and finally, culminating in a decision by the general education teacher about the need for help in ensuring this success.

**COMPONENTS OF MAINSTREAM CONSULTATION AGREEMENTS**

In this next section, we operationalize each of the three instrumental components that are embedded in the MCAs:

1. Defining teacher standards and expectations to develop MELOs.
2. Framing the mainstream agreement itself by delineating responsibilities and activities for operationalizing the program.
3. Establishing an evaluation and communication function by monitoring student performance.

Finally, we describe a summative evaluation system for ascertaining the effects of MCAs at the system level.

**Defining Teacher Standards and Expectations and Developing MELOs**

These two issues are essentially different sides of the same coin. While the former depicts requirements stated by teachers (ranging from critical to unimportant), the latter represents student behaviors (ranging from frequent to rarely). Teachers' expectations form the MELOs.

**Defining teacher expectations.** The findings on teachers' expectations discussed earlier in the chapter are helpful in describing the general expectations of teachers, yet, students eventually work with individual content area teachers. Although it may be assumed that certain common expectations are likely (e.g., attendance), variation across environments also may occur. Therefore, in developing an MCA, classroom expectations must be documented for each teacher for whom an MCA is developed.

Probably the most efficient strategy is to develop assessment instruments on the basis of the research discussed earlier. For example, in Figure 2, the 10 most salient issues identified by the teachers in the Kerr and Zigmond (1986) study are displayed. They are organized into rating scales (Social Behavior Standards; Walker & Rankin, 1983) to determine the salience accorded by each teacher (unimportant, desirable, or critical).

**Developing MELOs (Minimum Essential Learner Outcomes).** Both social and academic behaviors typically need to be targeted as important MELOs. It is obvious that deportment, compliant and orderly conduct within the classroom, is an important consideration for effective learning to occur and for successful mainstreaming. Although Nicholson (1967) found the preponderance of spe-
Mainstream Consultation Agreement:
Organizational and Decision-making Flowchart

Step 1
Does the handicapped student's educational program include placement in a regular education class?

| No  | End Process |

Step 2
Will the handicapped student receive grade for class on report card?

| No  | End Process |

Step 3
Will the handicap prevent the student from being successful (receive a passing grade)?

| Yes | If SERT and regular education teacher disagree, the principal decides at informal meeting. |

Step 4
Does the general education teacher want special education assistance?

| Yes | Special Education Consultation

Regular education teacher assumes the responsibility for ensuring the success of the handicapped student. This is noted on the Individual Educational Plan.

General educator and special educator share responsibility for student's success in regular education program. General educator and SERT develop a Consultation Agreement.

Individual Educational Plan and Progress Monitoring Program are developed by SERT.

FIGURE 1. Special education flowchart for implementation of Mainstream Consultation Agreements.
Critical Behavioral Situations: Reaction Checklist
(From Walker & Rankin, 1983)

<table>
<thead>
<tr>
<th>1. Student follows established classroom rules (17)</th>
<th>2. Student listens to teacher instructions and directions for assignment (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Unimportant 1 Desirable 2 Critical 3" /></td>
<td><img src="image" alt="Unimportant 1 Desirable 2 Critical 3" /></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Student can follow teacher written instructions and directions (33)</th>
<th>4. Student complies with teacher commands</th>
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<tr>
<td><img src="image" alt="Unimportant 1 Desirable 2 Critical 3" /></td>
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<tr>
<th>5. Student does in-class assignments as directed (50)</th>
<th>6. Student avoids breaking classroom rule(s) even when encouraged by a peer (34)</th>
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<td><img src="image" alt="Unimportant 1 Desirable 2 Critical 3" /></td>
<td><img src="image" alt="Unimportant 1 Desirable 2 Critical 3" /></td>
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<tr>
<th>7. Student produces work of acceptable quality given his/her skill level (15)</th>
<th>8. Student has good work habits, e.g., makes efficient use of class time, is organized, stays on-task, etc. (35)</th>
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<tbody>
<tr>
<td><img src="image" alt="Unimportant 1 Desirable 2 Critical 3" /></td>
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<tr>
<th>9. Student makes her/his assistance needs known in an appropriate manner (9)</th>
<th>10. Student copes with failure in an appropriate manner (24)</th>
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<tr>
<td><img src="image" alt="Unimportant 1 Desirable 2 Critical 3" /></td>
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FIGURE 2. Walker and Rankin's (1983) Inventory of Teacher Social Behavior Standards and Expectations (SBS) for identifying situations and behaviors deemed critical for successful functioning.

cial education referrals to focus on academic difficulties, the presence of behavior problems is nevertheless a major consideration in teachers identifying students for specialized help. Thurlow, Christenson, and Ysseldyke (1983) and Ysseldyke and Thurlow (1983) have noted that learning problems alone are frequently insufficient to warrant referral and eventual placement into special education programs. The observation systems for these areas are often quite
different from those used in measuring social interaction.

Teachers’ expectations can be used to form minimum expected learner outcomes: The items that are deemed critical may become the areas in which more data are collected and/or programs are developed. MELOs represent the skill levels of individual handicapped students in a given classroom/content area in relation to other students in the classroom. A number of strategies can be used then to ascertain and operationalize MELOs. Teachers can be asked to simply state the rules and expectations of the classroom; alternatively observations can be made of the classroom, and the operational rules induced from the instructional practices.

Social-interaction behaviors. The first, and maybe most important, aspect of any data collection system is the definition of the behaviors to be evaluated. Either specific or practical behavior definitions can be used. If specific behavior definitions are used, the behavior is described precisely and all terms in the definition are addressed; as a consequence, great specificity is ensured (e.g., “Each day when the bell rings, the student will be seated in the second desk of the third row, 90% of the time”). Practical definitions, which are more general notations of groups of behaviors (e.g., “The student will arrive in class on time”) may be less cumbersome and easier to measure consistently over time. For both systems, the conditions under which the behavior will occur should be included in the definition (e.g., work habits could be defined to include the following: “When given class time,” “when presented homework,” “in completing assignments with peers,” etc.). Once a relevant behavior is defined with sufficient specificity, a data collection or assessment format and schedule needs to be developed that is sensitive to its (rate of) occurrence.

Two assessment strategies are available for documenting the level of social, interactional, or academic skills exhibited by students. Either observations or rated judgments can be useful. Both strategies are important, the former to generate low-inference information and the latter to provide qualified information or perceptions.

When direct observation procedures are used, student behaviors are defined objectively and measured systematically. A host of observation strategies have been employed in the last 20 years in the schools and in the professional literature. Many of these procedures are noninteractive; that is, observers watch students but do not participate in the instructional process in specific settings. The student is observed performing tasks within classroom or instructional episodes (Tawney & Gast, 1984). Most of these observation procedures employ some form of time-sampling system such as whole-interval, partial-interval, or momentary time sampling. Examples of such instruments include the Code for Instructional Structure and Academic Responding (CISSAR; Stanley & Greenwood, 1981), Ecobehavioral Interaction Analysis of Instruction (EIAl; Greenwood & Carta, 1987), and Activities Structures Observation Schedule (ASOS; Parker, Hasbrouck, & Tindal, 1989). These instruments provide specific classroom information on the instructional content (handwriting, language, math, reading, etc.), the medium for delivering instruction (lecture, worksheets, discussion, other media, etc.), and the student response (asking questions, talking academically, reading aloud, etc.).

In many instances, collection of direct observation data either is difficult to accomplish or provides an incomplete depiction of a student’s performance. For example, a number of problems may prevent observational data from being useful:

1. Insufficient time is frequently available to observe more than one or two 20-minute periods.
2. Infrequently occurring behaviors are targeted for observation.
3. Reactivity to measurement may be present (i.e., the students know they are being observed).

In all of these instances, collection of judgmental information may be warranted, including teacher ratings to
corroborate estimates of the student's performance.

When judgments of student performance are used, perceptions of specific behavior can be measured by rating scales. With behavioral ratings of students, teachers generally are presented a list of behaviors and asked to note how characteristic it is of the student by selecting the description that fits best. Rating scales can provide a useful and valid adjunct to other, more objective data collection procedures when they include adequate descriptions of (a) the behavior being rated, and (b) the anchors used to describe the person being rated.

An important component of MCAs is the use of rating scales. For example, in Figure 3, the 10 items ranked most important by subjects in the Kerr and Zigmond (1986) study can be reformatted so that the anchors reflect frequency (e.g., rarely, occasionally, frequently) rather than importance. The items then can be used to document teachers' perceptions of a student's performance or perceptions of their change over time. In Figure 3, the rating scale is used to collect some of the daily data that form the core MELOs.

Academic skills. A wide range of academic behaviors can be evaluated in the classroom from two major sources: (a) analysis of permanent products, and (b) performance on measures devised by the teacher. Most content classes require that students complete a number of activities to receive a passing grade, including reports, homework assignments, projects, and worksheets. Typically teachers grade student performance on these products according to accuracy, quality, and timeliness. In addition, many content area teachers administer tests they have prepared themselves at some time throughout the quarter, in the middle and end (examinations) or at regular intervals from week to week (quizzes). Both sources can be considered curriculum-based and an important part of the overall evaluation of success. Grades for the class typically are developed by evaluating the students' performance from both sources (activities and tests) and using a (weighted) sum to emphasize them equally or differentially.

Summary. We suggest that both types of student assessment data (social-behavior and academic) be utilized to develop and modify instructional programs and support services. The data collected on social-behavior performance, from either observation or rating scales, and academic performance, from curriculum-based assessments, become instrumental in judging program outcomes. As depicted in Figure 4, the MELO data collection form includes a range of behaviors, both social and academic, for frequent evaluation (daily, with weekly cumulative totals). Some of the behaviors have been defined from interviews with the teachers, some from direct observation, some from ratings of critical requirements of the classroom and teachers' perceptions of students, and some from the academic assessments conducted in the initial IEP development.

Framing the Agreement: Delineating Responsibilities for Program Operationalization

The second major component of MCAs is the delineation of who is responsible for what activities. As Lilly (1987) has noted, consultation-based programs have been described for over 20 years; yet, "consultation has been written about more than it has been practiced in special education" (p. 494). For the sake of clarity and efficiency, MCAs are premised upon a specific and well-delineated relationship between the consultant and the consultee (content area teacher).

The content of the agreement needs to establish clearly not only the responsibilities of all participants, particularly the mainstream teacher, the special education teacher, and the student, but as important, the process for working together. As noted earlier, this model of consultation presumes that the special educator will serve in a facilitative, rather than collaborative role. In the consultant/consultee relationship, the consultant's primary responsibility is to assist the
FIGURE 3. An adaptation of Walker and Rankin's (1983) Inventory of Teacher Social Behavior Standards and Expectations (SBS) for judging student performance on behaviors requisite for success in mainstream environments.

Consultee, which is quite distinct from the collaborative and egalitarian relationship characterizing other models (Idol & West, 1987). Within a behavioral framework, then, relationships are established that focus on problem-solving, rather than process. Specifically, three individual's roles are considered.

Defining the consultant's responsibilities. The goal of the special education consultant is to help handicapped learners achieve success in mainstream classrooms, which often require inclusion of many specific objectives. Other than direct teaching in the content area, just about any activity can be included within
## DAILY CLASSROOM PERFORMANCE TALLY SHEET

**STUDENT:** ____________________________  
**TEACHER:** ____________________________  
**CONSULTANT:** ____________________________  

**CLASS:** ____________________________  
**WEEK OF:** __/__/____

Directions: The classroom teacher completes this form each day the student attends class. The teacher should put an 'X' in the appropriate point box.

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TOTAL POINTS

TOTAL WEEKLY POINTS

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**FIGURE 4.** Daily tally sheet for assessing performance on minimum essential learner outcomes (MELOs).
the consultant's responsibility. Three major activities include data collection and collation, intervention development, and program management.

As described above, a considerable amount of data typically need to be collected to help understand the problem and organize a program. Consultation is often quite labor-intensive in data collection (Tindal & Taylor-Pendergast, 1989), in which relevant information is collected, collated, summarized, and reported. With initial referrals, academic and behavioral assessments must be conducted, many persons must be interviewed, and a host of schedules must be coordinated.

In developing interventions, curricula often need to be adapted, requiring the consultant to help content area teachers incorporate principles of effective and explicit instruction (Brophy & Good, 1986). Later, of course, in actually adopting some of these modifications, more refinements may be necessary and/or training of others (parents, students, instructional assistants, etc.) may be needed.

Many support services require both management and vigilance while they are in operation. For example, a peer tutoring program requires monitoring; various self-monitoring programs require materials to be checked in and out; supplemental aids need to be incorporated into the mainstream content and sequence. This coordination of consultation services typically is assumed by the consultant, with two types of management: programs and evaluation systems. Since many programs are external to the classroom (incorporate people, materials, or procedures that are not part of the classroom), consultants involved in the MCA need to manage them. Since MCAs are data-based, a major responsibility of consultants is to manage the data so as to keep everyone involved (other teachers, administrators, parents, and students) up to date. This activity requires collecting data, summarizing them, and creating reports that provide graphic displays of change in performance over time. We present an example in the last section of this chapter.

- Defining mainstream teacher's responsibilities. The mainstream content area teacher is the program implementor and is responsible for (a) providing daily classroom instruction, (b) collecting student performance daily or weekly, and (c) modifying instruction in the content area as needed, with the assistance of the consultant.

The modifications may use support services, altered instructional materials or interactive strategies, various motivational systems, and a range of physical or administrative arrangements. To date, the relatively scant research that has been completed in this area of instructional design reveals quite positive results (Bergerud, Lovitt, & Horton, 1988; Franklin, Little, & Teska, 1987).

In the MCAs operated in Pine County, Minnesota, general education content area teachers adapt materials for low-achieving students with the help of the consultant. Teachers define relevant and critical curriculum areas and consultants help initiate potentially effective adaptations. A number of different strategies are described in this volume by Lovitt and Horton, as well as by Deshler. The following are some examples of adaptations for a middle school curriculum:

1. The text is outlined, to highlight the main ideas.
2. Key vocabulary words are identified and listed with the meanings.
3. Diagrams and illustrations are developed to supplement the text.
4. Activities are developed for initiating active learning that moves beyond reading and writing.
5. The sequence of the material is modified.
6. Audio tapes are made that provide extended information.
7. Practice exercises are illustrated or graphic worksheets are devised for the student to practice problem solving.
8. A "cliff notes" version of the text is written.
9. Materials are developed for use by peers to teach students.

Finally, the content area teacher is responsible for communicating the stu-
dent’s progress to all involved persons (including daily/weekly tally sheets, progress reports to the home, and/or changes in the MCA) and for setting up conferences with the resource teacher, student, or parent.

**Defining student’s responsibilities.**
An increasing theme in secondary settings is student self-management through use of problem-solving strategies (Ally & Deshler, 1979). To capitalize on this theme, the MCA places major responsibility upon the student for establishing the content of the agreement and the process for monitoring outcomes. The student’s primary responsibility is to engage in MELO behaviors as defined in the MCA, and request assistance or clarification of any aspect of the agreement.

**Other issues regarding roles and responsibilities.** Once the three major participants’ responsibilities are clearly specified, several other components of the MCA need to be prepared prior to instituting the agreement, including (a) incorporation of parental involvement, (b) preparation of tally sheets, (c) agreement on the location and routing of the tally sheets (e.g., via teacher’s mailbox or through the student), (d) identification of who will review progress and attend conferences, (e) consideration of proposed reinforcements or consequences for progress or lack of progress toward the goal, (f) organization of support services, and (g) establishment of evaluation period dates.

In summary, MCAs require content area teachers to accommodate students with learning or behavior problems with the help of special education teachers. A critical requirement for successful implementation is that the program be well articulated and the roles and responsibilities well delineated. In Figure 5, an MCA is displayed. The major components include identifying important target behaviors (using teacher expectations and MELOs), establishing specific accommodations, and finally, specifying the responsibilities of teachers, consultants, and students.

**Establishing An Evaluation-Communication System: Monitoring Student Performance**

The last major area needed to develop successful MCAs involves measurement and evaluation strategies for monitoring student performance and progress over time. A number of steps need to be followed to establish a daily evaluation system that reflects the individual student’s program. First, as discussed earlier, the student’s current level of performance on the MELO behaviors must be established prior to implementing the MCA. This information can serve as baseline data and provide a standard against which to compare the effects of interventions in the MCA when they are introduced. Second, IEPs must be established that provide both a long-range goal (LRG) and short-term objectives (STO). This IEP simply converts the information about the teacher’s expectations, the student’s target behaviors, and the interventions into an evaluation procedure. The IEP can then be used for making decisions about success — when is the student’s progress sufficient to maintain programs and when is it insufficient, warranting modification of instructional programs. These three areas are presented as separate topics; in reality, they interact in the decision-making process.

**Long-range goal.** A long-range goal is a statement of the regular education teacher’s expectations of a student at the end of a specified period of time, usually the end of the marking period. The LRG should have three components: (a) a description of the conditions under which the student is expected to behave, (b) a description of the specific task(s) or behavior(s) required of the student, and (c) specification of an evaluation or grading system, based on performance points assigned to the MELOs.

Two of these three components are standard for MCAs. Often, the conditions simply specify the class for which an agreement has been forged and the specific tasks required in the class. These tasks can be listed on a daily monitoring sheet and in the IEP itself, and they usually
are described as “earning points.” For example, a long-range goal may specify that “when attending Earth Science 101 on a daily basis and participating in the general class activities as well as using supplemental support services, the student will earn ____ points by exhibiting the following behaviors . . .”

The third specification of an evaluation or grading system must be specifically established for each agreement, using the following procedures:

1. Together, the classroom teacher and consultant determine the number of points to be earned for each MELO behavior. These points are assigned on a weighted scale, with more points assigned to those MELO behaviors that most reflect the student’s success in the classroom. For example, the student may be awarded more points for accurate and neat completion of weekly assignments or daily involvement in classroom discussions than for working cooperatively with peers or asking for help. The number of points to be earned each day are multiplied by the total number of days in the marking period. This number serves as the criterion for the long-range goal.

2. The relationship between points and grades then is established. The evaluation standards are set with two major cut-offs identified: expectations of average student performance (C grade) and minimum expectations needed to pass the class (D grade). Both standards are set by estimating the level of performance of the peers in the classroom. Such grade cut-offs must be consistent with the district’s marking system, (i.e., A, B, C, D, and F). An A or B grade is not usually negotiated, since this implies the student is above average and does not require a special education program modification for that
FIGURE 6. Individual educational plans, specifying long-range goals (LRG) and short-term objectives (STO).
class. An alternative grading system also is not an option (P/N is D/F) unless it is available for nonhandicapped students.

**Short Term Objectives (STO)**

Once the points or weights assigned for each behavior are listed and the total points are summed, the short-term objective can be defined. The short-term objective breaks down the long-range goal into more limited time units to allow evaluation of progress (a week is usually a convenient unit). Like the long-range goal, a short-term objective contains a condition, a task, and a criterion for mastery or evaluation standard. The conditions and behavior typically remain the same as specified in the LRG (i.e., “Each week, when attending Earth Science 101 on a daily basis . . .”). The evaluation standard, however, changes from a focus on an eventual accomplishment to successive accomplishments (i.e., changes from the end of the quarter to the end of each week within the quarter). The short-term objective is established by simply dividing the number of points required in the long-range goal by the number of weeks in the marking period. This calculation provides the average weekly number of points for attaining a grade. Each IEP should have with it a corresponding graphic display that simply reflects all the information on the conditions, the task, and the evaluation standards.

In summary, the IEP translates the content of the mainstream consultation agreement into an evaluative document for determining its effects. While the MCA focuses on specific target behaviors and interventions, detailing individual responsibilities of all participants, the IEP establishes the general conditions of the classroom and provides a point system for evaluating whether the behavior is exhibited at an appropriate level and rate to achieve success (receive a passing grade in the class). The document includes both a long- and short-term focus, primarily to allow evaluation and modification concurrent with delivery of the program. The form used to write the IEP is displayed in Figure 6.

**Evaluating progress.** Decisions regarding a student’s progress can be made daily or weekly, depending upon how frequently data are collected. However, in utilizing student performance data to evaluate the effects of MCAs, three conditions must be met.

First, the student’s performance must be measured frequently to provide the necessary information for interpretation. Daily measurement is optimal; once weekly is the least amount possible for an evaluation system to be useful.

Second, administration of these measures must be as uniform as possible. Changes in the measurement procedures make it difficult to interpret program effects, as it is not clear whether the effect is due to interventions or changes in measurement. This issue becomes particularly important when the data used to measure performance are based on ratings or judgments.

Third, interventions need to occur in a systematic manner and should represent additions or deletions of support services, instructional materials, motivational techniques, and physical and administrative arrangements, or changes in the expectations of student performance.

If these three conditions are met, a goal-oriented decision guide (Fuchs, 1989) can be used to determine whether an intervention strategy is effective or if it should be changed. Throughout the course of consultation, the decision to change the program follows a set of circumscribed decision rules; they are based on both student performance/progress and the aim of the program. The student’s current performance and trajectory is simply compared with the expected performance and trajectory (as specified in the long-range goal).

Data decision rules can be used to decide when to change a program that is not achieving an expected result. These rules attempt to improve the basis for making decisions by taking the guesswork out of deciding when to change. For example, the content area teacher and the consultant may establish ahead of time a decision guide that specifies a time
period of 3 weeks for judging program effects. In this instance a program modification may be considered when student performance data are below the long-range goal on 3-5 consecutive weekly totals.

For maximum efficiency, the student's performance can be graphed on a computer through a progress monitoring program (PMP) (Jennen & Roddy, 1987). The PMP incorporates Apple II software that allows the user to define, collect, view, and analyze student progress toward the LTG and STO specified in the IEP. Changes in the agreement are made when the differences between the student's performance and the short-term objective becomes great, or when the student's cumulative point value is below the short-term objective or is approaching a failing level. In applying goal-oriented evaluation strategy, the consultant works with the teacher so that the student's performance reaches the IEP goal by a certain date. Changes in the MCA are indicated on the PMP graphs as a program change, thereby eliminating the necessity of writing a new MCA.

Ideally, consultation-based interventions represent substantial changes or interventions that have a high probability of improving student performance. Such changes also should be organized and systematic, since changing many parts of the plan at the same time would make it difficult to determine what produced the change in performance if, indeed, one occurs. To make certain this doesn't happen, instructional components need to be identified specifically and described so that the effectiveness of any one can be tested separately. This process of changing consultation strategies when performance is consistently below what is expected (represented by the short-term objective) should continue for the duration of the instruction/marking period.

In Figure 7, an idealized display of student performance is presented. The two important components of the graph are a plot of the student's weekly performance levels and a series of lines depicting levels of success (grades in the class). The vertical axis represents points earned on MELO behaviors and the horizontal axis represents successive weeks.
Summative Evaluation: Program Outcomes from MCAs

Special education consultation services are evaluated through the analysis of three data bases: (a) the degree to which MCA-based instructional procedures are implemented, (b) the degree to which handicapped students are successful in general education classrooms, and (c) consumer satisfaction with the consultation services — primarily mainstream education teachers, students, and parents.

Implementation review. As discussed thoroughly by Elliott, Witt, and Kratochwill earlier in this monograph, a very important question in evaluating any treatment program is whether the program was ever really implemented with integrity. Assessing treatment fidelity is an important component in the MCA process. The following questions are to be answered by the consultant during an implementation review conference, typically held within the first 3 weeks of the MCA:

1. Is the type of instruction the same as planned?
2. Is the time provided the same as planned?
3. Are the days provided the same as planned?
4. Is the program implementor the same as planned?
5. Is the place of instruction the same as planned?
6. Are mainstream consultation agreements in other content areas needed?
7. Is performance or behavior graphed?
8. Does the graph correspond with the IEP goal?
9. Are the data plotted the same as planned?

Any differences between the instructional plan that was proposed and the plan that was actually implemented can and should be corrected quickly.

Determining success in the mainstream. Assuming that the MCA-based program is delivered with integrity, the final issue is whether the program is working overall. To answer this question, all general education classes in which special education students are enrolled need to be summarized and analyzed as an aggregate. This program evaluation can be accomplished as follows.

1. Classes need to be organized into two groups, taking into account the type of student (MCA participation status) and class (academic focus): The most important group includes only those students who have academic classes with and without MCAs. Some students participate in MCAs and some students do not participate in MCAs in any given class. Furthermore, students take two types of classes: academic classes that use books and lectures as the primary mode of instructional delivery (Earth science, English, etc.), and nonacademic classes, which use projects and experiential learning as the primary mode of instructional delivery (art, woodworking, etc.). To evaluate MCAs, only academic (or nonacademic) classes must be selected within each student's course load, with some utilizing and some not utilizing the MCA process. If all classes utilize the MCA, no comparison is available. If MCAs are utilized only with academic classes and not the nonacademic classes, they are not comparable.

2. Student success must be operationalized for each of the two groups. Either the grade point average or a frequency count of the number of different grades can be tallied for the two groups.

In evaluating the program outcomes summatively, these two issues should be used to help validly organize the data and reports. For example, it is incorrect to simply compare the average GPA for all classes in which MCAs are involved with the classes in which special education students are attending without MCAs. Rather, the two groups of classes (with and without MCAs) can be analyzed only for students who have both. The reason for using this subset is that the difference between classes (those with and those without MCAs) may be a function of the type of student for whom MCAs are
developed, which would distort the data. For example, MCAs may be developed only for extremely difficult students with very low academic skills, decreasing the likelihood of improvement. However, in classes for whom no MCAs were ever considered, the students may not have such extreme skill deficits. In addition, the nature of the class content may bias the interpretation of the data. It is possible for classes requiring more academic study to be overrepresented with MCAs (students need more help with these classes). As a result, when the data are aggregated, they dominate the effects.

By taking into account these two issues, a two-by-two table can be developed as depicted in Figure 8. One dimension is whether the class had an MCA or not; the other dimension is the type of class (academic or not academic). For each cell, either the frequency count of grades or the GPA can be computed.

To date, two program evaluations have been conducted on implementation of mainstream consultation agreements in the secondary schools in Pine County, Minnesota. Tindal, Shinn, Walz, and Germann (1987) found that, after a year of implementation, students performed as well in academic courses with MCAs as they did in academic courses without MCAs. Students receiving help in their academic content classes in the form of an MCA most frequently received a D grade, with the next most frequent grade being an F. Students who took content classes without MCAs also received a D grade most frequently; however, the next most frequent grade was a C. Nevertheless, when the GPA was calculated, no significant difference between these two groups (of classes, not students) was found. Tindal, Shinn, Walz, and Germann (1987) interpreted their data as supportive of MCAs, since the original contingencies to invoke such agreements was the virtual certainty of student failure in the class.

A follow-up study was completed by Tindal, Parker, and Germann (1990), in which students taking classes with and classes without MCAs were compared on two dimensions: the average GPA for a quarter and the change in GPA across two quarters (better, same, or worse). Again analyzing data for academic classes only, they found that students had the same GPA in classes with and in classes without MCAs. However, they also found that the stability of grades was more likely to
change in classes with MCAs than those with no MCAs. Therefore, in each quarter students, teachers, and classes need to be carefully considered in designing subsequent MCAs: Previous success does not increase the likelihood of subsequent success.

Finally, program evaluation can and should include attention to process issues and to satisfaction of the consumers (parents, students, and teachers). They can be interviewed on a yearly basis to understand their perceptions of the entire MCA program. Since they must deliver most of the instructional programs, a considerable emphasis should be put on how well they feel supported: What is the quality of services from special education? How adequately are content area materials adapted and delivered? Is the consultation process appropriately supported through the scheduled meetings?

SUMMARY

We have described a consultation program that is designed to systematize the manner in which secondary students are mainstreamed into content area classes. The major components include a well-defined organizational flowchart for implementation of mainstream consultation agreements (MCAs). This structure is used to resolve two thorny issues that educators are faced with immediately upon entertaining any kind of a mainstreaming program: (a) who should be served, and (b) who should serve them. We described several issues that arise in targeting an appropriate group of students for whom MCAs are appropriate: analysis of situations and behaviors deemed critical for successful functioning, judgment of student performance on these behaviors, and development of curriculum-based and classroom-focused measures for assessing performance on minimum essential learner outcomes (MELOs). In defining who should serve these students, we described a system that actively incorporates the content area mainstream teacher in the decision-making process and service delivery. With students who receive special education services, general education teachers have a choice of receiving help from special education to ensure the success of these students in their classroom. If this option is selected, consultants and teachers have accepted shared responsibility for ensuring such success. These contingencies are strong, yet they are likely responsible in some degree for success in implementation. Obviously, this form of intervention at the secondary level requires careful and systematic attention to and support from administrators, a variable that is often missing from most models of consultation (Tindal, Shinn, & Rodden-Nord, 1989).

Once students and teachers are identified for developing an MCA, the next step is a procedure for delineating responsibilities. This system should be considered the primary and most visible component of the process. A very specific form is used to help structure this step, the mainstream consultation agreement itself. An IEP is then completed that operationalizes a measurement and evaluation system using long-range goals and short-term objectives in respect to classroom behaviors. The most important part of this step is a daily progress or performance graph for evaluating program effectiveness. Finally, a procedure is carried out for evaluating MCAs summatively at the end of the year. The data collected in these last two steps are to be used to modify and improve programs for both students and teachers.

REFERENCES


Germann, G. (1986). *Pine County Special Education Cooperative TSES Procedural Manual: Mainstream Consultation*. (Available from Gary Germann, Director of Special Education, Sandstone Public Schools, P.O. Box 228, Sandstone, MN.)


