This chapter on curriculum adaptation and development is taken from a guide to designing, implementing, and evaluating instruction and services for students with disabilities. It provides an overview of major curriculum options and systematic processes for selection, adaptation, and design of a curriculum for students with disabilities. Two major curriculum options are identified—the standard curriculum of general education and a functional orientation. The role of the Individualized Education Program in curriculum planning is reviewed. Common formats for curriculum materials (such as skill sequences and conceptual mapping) are discussed. The steps involved in deciding whether to adapt existing curriculum materials or design a new curriculum are outlined, followed by the steps involved in designing a new curriculum if that is determined to be necessary. Figures provide a list of curriculum options for special education, a continuum for curriculum planning, and a curriculum evaluation guide. (Contains 19 references.) (JDD)
Chapter 6
Curriculum Adaptation and Development

Virginia Laycock McLaughlin

INTRODUCTION

Simply put, curriculum is the what of instruction (Glickman, 1990). It includes the explicit curriculum (what is intended to be taught), the delivered curriculum (what is actually taught), and the received curriculum (what students actually learn) (VanTassel-Baska, Feldhusen, Seeley, Wheatley, Silverman, & Foster, 1988). Accordingly, curriculum is the very core of the educational program.

A strong working knowledge of curriculum helps both teachers and administrators recognize the full range of options that must be available to meet the diverse needs of students with disabilities. Clarification of the relationship of curriculum to instruction and delivery systems underscores the primacy of curriculum decisions. That is, decisions about the appropriate content of the program for the intended learners should drive all related decisions such as selection of teaching methods and determination of placement. Careful curriculum planning is especially important for successful inclusion of students with disabilities in general education classrooms (Hoover, 1987; Laycock & Korinek, 1989). In addition, a well-articulated curriculum enhances the credibility and accountability of special education programming by conveying appropriately high expectations through core curriculum standards (Murphy & Hallinger, 1985) and by establishing the foundation for curriculum-based assessment (Sage & Burelio, 1986).

This chapter provides administrators with an overview of major curriculum options and systematic processes for selection, adaptation, and design of a curriculum for students with disabilities. The chapter is organized around the following five questions commonly asked by administrators:

1. What are the major curriculum options for students with disabilities?
2. How does the individualized education program (IEP) fit into curriculum planning?
3. What are some common formats for curriculum materials?
4. How should educators decide whether to adapt existing curriculum materials or design their own?
5. What are the critical steps for designing a new curriculum?
1. WHAT ARE MAJOR CURRICULUM OPTIONS FOR STUDENTS WITH DISABILITIES?

Currently, two frames of reference predominate in conceptions of curriculum for students in special education. One is the standard curriculum of general education and the other is a functional orientation. While these are not mutually exclusive, they reflect different priorities for educational programs.

The Standard Curriculum of General Education

This orientation represents a developmental and primarily academic concept of curriculum. Subject matter content may be discipline specific (e.g., history or mathematics) or interdisciplinary in nature (e.g., applied science or humanities). Comprehensive curriculum goals are typically translated into objectives or intended outcomes for each grade level. Although initiatives are under way to define national curriculum standards, most states have their own curriculum guidelines. In the Commonwealth of Virginia, the Standards of Learning developed in the 1980s and now the Common Core of Learning for the 1990s and beyond provide a statewide frame of reference for the general education curriculum. Individual school divisions then select or develop basal curriculum materials to address state standards in each area.

This standard or general education curriculum is an appropriate initial frame of reference for planning special education curriculum. In fact, pursuit of this curriculum is least restrictive for students in that it maintains graduation and diploma options (Laycock & Korinek, 1989). The standard curriculum is individualized for specific students by adapting delivery strategies. Adaptations may include, for example, increasing emphasis on selected components of the curriculum; adjusting the pace of the curriculum; and tailoring teaching strategies, student activities, and evaluation procedures to the unique needs of students with disabilities.

A Functional Orientation

While the standard curriculum is one important frame of reference, it might not explicitly address many areas of critical need for students with disabilities. A more specialized curriculum is often necessary to prepare students with disabilities to function as independently as possible in a variety of age-appropriate settings. From a functional perspective, curriculum content is derived from an analysis of activities and skills needed to succeed in current and future environments. These settings include domestic, school, community, work, and leisure-recreational environments (Polloway, Patton, Epstein, & Smith, 1989; Snell & Grigg, 1987; Virginia Statewide Systems Change Project, 1990). Strong emphasis is placed on preparing students for making successful transitions from school to adult community and work settings. (See Chapter 10 for specific information on transition programming.)
The specific content addressed may include academic subjects with a more functional orientation such as personal budgeting in mathematics or survival vocabulary in reading; academic-related skills such as learning strategies and study skills; social-behavioral skills such as communicating with peers and adults or problem solving; as well as basic motor, communication, and self-care skills required for participation in a broad range of activities. A functional orientation is sometimes described as a “top-down” orientation to curriculum, because the target objectives for each individual student are derived from analyses of successful participation in natural environments. The program then focuses on maximizing the student’s ability to function in those settings.

Between the standard and functional orientations, there are a number of curriculum options that are appropriate for students with disabilities. Figure 1 lists and briefly describes each of these major options. One or several specific options may be selected for an individual student’s program. The curricula of choice are likely to change over time. For these reasons, establishing appropriate curricular priorities is one of the greatest challenges in special education. Deciding what is most important for a given student at any particular point in time requires careful consideration of a number of factors, including the nature and severity of learner needs, learner history, age or grade level, critical needs in present environments, critical needs in the next less restrictive environment, and logical sequencing within each curriculum area (Laycock, 1992).

2. HOW DOES THE INDIVIDUALIZED EDUCATION PROGRAM (IEP) FIT INTO CURRICULUM PLANNING?

The IEP is widely viewed as the hallmark of curriculum planning in special education. (See Chapter 5 for more specific information on IEPs.) Developed by a team, the IEP specifies all of the critical components of the individual’s educational program for the year, including the goals and objectives to be taught and learned (the curriculum). The emphasis on individualization, along with attention to the IEP for compliance monitoring, may have led many educators to lose sight of the broader curricular context.

Figure 2 presents a continuum for curriculum planning that illustrates where the IEP fits into the total scheme for both decision making and implementation. As previously discussed, the comprehensive orientations of standard curriculum and functional curriculum, with the full range of options in between, provide the frames of reference for individualized programming. The annual IEP, then, includes only the curriculum targets judged most important for the particular learner in a given year. The IEP must then be translated into manageable units of curriculum content and time. The units may address content to be covered over a semester, a grading period, or a set number of weeks. The unit itself is translated into a series of lessons and is actually delivered to students through the daily lesson plan.
Figure 1

Major Curriculum Options for Special Education

<table>
<thead>
<tr>
<th>Curriculum Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Curriculum with Adaptions</td>
<td>Uses the ongoing general education curriculum with modifications in presentation, practice, and evaluation methods to suit individual learner needs.</td>
</tr>
<tr>
<td>Parallel Alternate Curriculum</td>
<td>Emphasizes essential objectives from the standard curriculum but structures the curriculum, instructional strategies, and evaluation procedures to accommodate groups of learners with special needs.</td>
</tr>
<tr>
<td>Remedial Basic Skills Curriculum</td>
<td>Focuses on identification and intensive instruction to correct specific deficits in basic literacy areas of language arts, reading, and mathematics.</td>
</tr>
<tr>
<td>Thematic Unit Curriculum</td>
<td>Organizes interdisciplinary content around highly motivating themes or issues as a vehicle for addressing basic skills development in a meaningful and functional context.</td>
</tr>
<tr>
<td>Learning Strategies/Study Skills Curriculum</td>
<td>Emphasizes principles, rules, and techniques that enable students to learn, solve problems, and function more independently in classroom and social settings.</td>
</tr>
<tr>
<td>Social Skills Curriculum</td>
<td>Addresses prosocial development and/or identified deficits in basic communication, coping, and survival skills.</td>
</tr>
<tr>
<td>Career-Vocational Education</td>
<td>Encompasses comprehensive experiences through which students learn about and prepare for productive engagement in postsecondary work environments.</td>
</tr>
<tr>
<td>Independent Living Skills Curriculum</td>
<td>Emphasizes current skill needs and adult outcomes required for successful functioning in major life domains, environments, and activities.</td>
</tr>
</tbody>
</table>
Figure 2

A Continuum for Curriculum Planning

STANDARD CURRICULUM ↔ FUNCTIONAL

INDIVIDUALIZED EDUCATION PROGRAM

UNIT PLAN

LESSON PLAN
Viewing curriculum in terms of a continuum is useful in that it emphasizes the coherence that is critical to the planning process. The IEP is clearly pivotal in curriculum planning. The IEP must be developed, however, with reference to a more comprehensive curriculum to benefit from best practices and ensure continuity for the student’s program over time. In turn, it must provide direction for unit and lesson planning to ensure that the intended goals and objectives are actualized through the student’s daily instructional experiences.

3. WHAT ARE SOME COMMON FORMATS FOR CURRICULUM MATERIALS?

Written curriculum may be presented in a number of different formats, ranging from simple lists of intended outcomes to elaborate kits with complete teachers’ guides and multimedia for addressing their objectives. The most basic curriculum format is a skills sequence that Glickman (1990) described as "results-only." Curriculum written in the results -- only format presents sequenced listings of the goals or outcomes in a particular subject or unit. Usually, the outcomes are stated as verb phrases specifying what the student is to know or be able to do upon completion of the curriculum. Examples of results -- only statements might include the following: "Names coins"; "Adds coins to one dollar"; "Makes change for one dollar." With this curriculum format, the teacher is responsible for determining the specific instructional methods, teaching materials, and assessment procedures.

Another common curriculum format uses behavioral objectives. As in the results-only format, behavioral objectives are listed in sequence for each subject or skill area. Complete behavioral objectives, however, specify not only the behavior to be demonstrated but also the conditions and criteria for acceptable performance. If the unit on money skills were written in behavioral objective format, the statements might appear as follows: "Given coins of different denominations up to one dollar, the student will state the correct amount on four of five trials." The behavioral objective format directs the teacher to specific teaching materials and assessment procedures.

Although sequenced lists are the most typical way of presenting results-only statements or behavioral objectives, webbing and conceptual mapping are also used to illustrate more complex relationships among intended outcomes within a curriculum (Glickman, 1990). For example, webbing begins with a subject theme and then develops related themes, activities, and possible outcomes. This format is particularly appropriate for interdisciplinary units linking art, music, language arts, social studies, mathematics, or science.

Finally, some curriculum is formatted as an integrated curriculum and instructional package. Many curriculum materials developed locally or available from commercial vendors specify not only what is to be taught (the intended outcomes of the curriculum) but also how it should be taught (the instructional procedures). The familiar basal series epitomizes this format, for it includes comprehensive listings of the
scope and sequence of the curriculum along with complete lesson plans, teaching materials, differentiated activities for diverse learning needs, and its own testing program.

Format is largely a matter of preference for both the developer(s) and user(s). What is critical is that curricular components are clearly distinguished from instructional components, so that the merits of each can be judged appropriately.

4. HOW SHOULD EDUCATORS DECIDE WHETHER TO ADAPT EXISTING CURRICULUM MATERIALS OR DESIGN THEIR OWN?

For effective educational programming, teachers need to access appropriate curriculum resources for all levels of the planning continuum from comprehensive scope and sequence guides to supplementary materials for daily lessons. Finding the right curriculum materials for students with unique learning needs may be difficult. If no adequate or easily adapted materials can be located, it may be necessary to develop a new curriculum.

Because curriculum adaptation and design are complex, collaborative, and creative endeavors, there are no set formulas for developers to follow. Existing models and guidelines are helpful in that they suggest considerations and specific tasks that contribute to a more complete and systematic approach. The curriculum planning model presented in Figure 3 represents a composite of several different models. The basic "4-D" structure -- Define, Design, Develop, and Disseminate -- (Thiagarajan, Semmel, & Semmel, 1974) has been expanded to include an aDapt step, and it has been combined with subtasks derived from a variety of sources (e.g., Budde, 1981; Glatthorn, 1990; Haas, 1987; Hunkins, 1985). Both adaptation and design of a curriculum begin with a thorough definitional phase. Only after careful analysis of user needs and available options are educators able to decide whether they are better off to adapt existing curriculum materials or design new ones.

While the stages of the model are presented in a typical sequential order, the actual process is more dynamic. Subtasks are often accomplished concurrently, and decisions at later stages sometimes necessitate recycling to earlier stages of the process. Each of the stages and tasks is briefly described here.

Define

Form a Curriculum Planning Team. The quality of decisions and the likelihood of meaningful change are enhanced by having major stakeholders actively involved in curriculum planning. Those closest to the needs of students, especially teachers and parents, are key participants. It is often helpful to have both general and special education perspectives represented, as well as those from community, postsecondary, and work settings.
Figure 3
Curriculum Adaptation and Design

- Disseminate
- Develop
- Design
- Define
- aDapt
**Devising a Management Plan.** The management plan should delineate all major tasks to be accomplished, individuals responsible, and timelines for completion. A suitable timeline allows adequate time for comprehensive input and encourages continuous enthusiasm and effort. In developing a timeline, it often helps to work backwards from the dates when products will be needed.

**Specify Learner Needs.** Analysis of outcome accountability program (OAP) data, individual and group assessment profiles, and IEPs will suggest the curriculum options that need to be addressed within the educational program. Further analysis will narrow the scope to more specific concept and skill areas.

**Identify Teacher Needs.** Determination of teachers’ experiences with relevant curriculum materials, their access to resources, and their preferences regarding curriculum formats and other features is an important part of needs assessment.

**Articulate a Philosophy and Rationale for the Curriculum.** The team should agree on a philosophy that reflects their beliefs about what students need to learn in the target area and why. The curriculum philosophy should be consistent with the overall philosophy of the school’s general and special education programs and with relevant federal and state mandates.

**Specify Overall Goals for the Curriculum.** The focus of the curriculum should reflect the philosophy developed by the curriculum team. Selection of priority needs and discussion of how to meet those needs provide direction for subsequent curriculum adaptation or design tasks.

**Specify Standards or Criteria for the Curriculum.** Clarification of expectations or essential features of a "good" curriculum in the target area should be done early in the process. These expectations become the standards for appraising the suitability of the existing curriculum. Should it become necessary, they also provide a blueprint for the design of a new curriculum and later serve as the basis for evaluating that curriculum.

It is often helpful to have curriculum standards articulated in the form of a rating scale. Several rating scales have attempted to incorporate standards derived from literature on best practices in both general and special education (Englert, 1984; Reisberg, 1990; VanTassel-Baska & Laycock, 1992). The *Curriculum Evaluation Guide*, presented in Appendix A, is an example of a guide that focuses on general considerations for technical adequacy, as well as special curriculum considerations for students with disabilities.

**Assess Suitability of Available Curriculum Materials.** Teams should locate and appraise available materials using a checklist or rating scale such as the *Curriculum Evaluation Guide*. Users of this guide are instructed to examine thoroughly all components of a curriculum under consideration. They then rate...
Define the Scope of the Current Design Effort. Selection and adaptation of existing curriculum materials is far more cost effective than designing new materials. The analysis of gaps in the existing curriculum accomplished during this definitional stage suggests what is needed, but the team may not be able to address all identified needs at once. The team must consider personnel and time commitments, availability of technical assistance, and other resource issues in order to define feasible parameters for this project. The team should proceed with a design effort only if there are no materials available that approximate defined needs and are suitable for adaptation.

Adapt

Select Curriculum Materials that Approximate Standards. Systematic analysis and rating using an instrument such as the Curriculum Evaluation Guide permit comparison of different curriculum materials for potential purchase or use. Preferred materials are those that come closest to satisfying the standards and can be most easily adapted in areas of relative weakness.

Modify the Curriculum in Identified Areas of Concern. Most curriculum materials will require some adaptation prior to use with the intended learners. The level of detail on the Curriculum Evaluation Guide is helpful in pinpointing the specific aspects of the curriculum that need to be modified. For example, a curriculum assigned a rating of "2" on item 6 -- Coherent Structure and Order to Content -- would require some revamping in order to meet specifications. Certain objectives may be expanded or sequenced differently to eliminate gaps and create a more logical structure for the curriculum. In another instance, a curriculum may be rated poorly on item 12 -- Authentic, Curriculum-Based Evaluation Procedures -- because it fails to include any suggested measures of student performance. If the curriculum is otherwise sound, users may overcome this particular weakness by developing their own curriculum-based assessments.

Pilot the Modified Curriculum. After necessary adjustments have been made in the design of the existing material, it should be more appropriate for use with the intended learners. However, the only real way to assess the effectiveness of the curriculum is to implement it and monitor student performance.

5. WHAT ARE THE CRITICAL STEPS FOR DESIGNING A NEW CURRICULUM?

Although adaptation of existing materials is clearly the preferred approach, the curriculum planning team may decide during the definitional stage that there are
legitimate reasons to design a new curriculum. Curriculum development is a multistep process that requires input from a variety of stakeholders, a consensus of agreement as to focus and directions, and an organized plan of development and implementation. Careful planning from the outset allows for a feasible timeline; a reasonable workload for the persons involved; and sufficient support for implementation, evaluation, and revision. What follows is a brief description of each of the steps in the design cycle.

**Step 1: Design**

*Define Specific Student Outcomes.* Outcomes are statements of objectives that indicate what students are expected to achieve upon completion of the program. Objectives are typically derived from clear understanding of the structure of the discipline and available research on subject matter curriculum. For more functional targets, a top-down, task-analytic approach is most useful.

*Determine Curriculum Formats.* A variety of formats can be used to attain the desired outcomes. Teams become more aware of alternatives by collecting, reviewing, and discussing samples of different curricula. Selected formats must match the philosophy and defined standards for the curriculum and meet the needs and preferences of the users (i.e., students and teachers).

*Create Learning Activities and Media.* Specific strategies and materials for instruction and student practice must be correlated with objectives to provide unit and/or lesson guides. Many of the considerations addressed in Chapter 7 on Effective Instruction are relevant to this aspect of curriculum design.

*Design Curriculum-Based Assessments (CBAs).* Assessment measures should be devised during this phase of curriculum design in conjunction with objectives and instructional activities. Although some relevant tests or existing measures may be available, it is usually necessary to develop assessments specifically linked to the curriculum. (For more information on CBA, see Chapter 7.) CBAs are helpful to teachers for determining student entry skills and monitoring their performance throughout the program. CBAs are also important for the evaluation of curriculum effectiveness.

**Step 2: Develop**

*Complete the Prototype Curriculum.* Once the curriculum has been conceptualized during the design stage, the core team develops the actual materials according to those defined specifications. Some technical assistance may be needed to support production efforts, especially if the curriculum includes multimedia or computer software.
**Conduct Design Evaluation.** The prototype materials should undergo design evaluation prior to their implementation. External reviewers should include several individuals with recognized expertise in the content area and in curriculum and instructional design, as well as teachers who are representative of the intended users. The team also may choose to involve other important stakeholders such as administrators and parents in the review process. These reviewers evaluate the curriculum primarily in terms of its face validity: Does it have what it takes to accomplish its intended outcomes? The standards that the team adopted during the "Define" stage now provide the criteria for design evaluation. A rating scale such as the *Curriculum Evaluation Guide* in the Appendix helps to structure the review process.

**Revise the Prototype.** Evaluative feedback from reviewers who represent different and critical perspectives provides the development team with a clearer sense of direction. Strengths of the curriculum are affirmed, and areas of concern are identified for revision. If the responses of the reviewers suggest a major overhaul of the curriculum, another cycle of prototype development and design evaluation may be necessary.

**Conduct a Developmental Pilot of the Curriculum.** By this point, the team should have a well-written curriculum that is ready for a trial run. The developmental pilot should involve implementation of the curriculum by a few representative teachers with target students. They should use the curriculum as written, carefully documenting what actually works and does not work in the classroom. The curriculum-based assessments written into the program provide critical data on student performance.

**Revise the Curriculum.** The developmental pilot typically reveals a number of "kinks" in the curriculum that were impossible to anticipate prior to implementation. The team can then make revisions before the curriculum is used more widely. Several pilot and revision cycles may be necessary to work through more complicated curriculum components.

**Step 3: Disseminate**

**Field Test the Curriculum.** When the team is satisfied with the revised draft of the curriculum, it is ready for more extensive field testing with additional teachers and students. The goal is standardized implementation that will allow consistent judgments to be made about the curriculum's effectiveness. The team needs this information to support its assertion that if the curriculum is implemented as intended users can expect student attainment of the target objectives.

**Complete Final Revisions and Packaging.** The team has another opportunity to use information gathered during field testing to refine curriculum materials. With
teacher and student input, the team can ensure that the material not only is effective but also is packaged in a way that is appealing and "user friendly."

**Make the Curriculum Available to Other Internal and External Users.** As a result of this process, the team has a product that is worth sharing with others. Depending on the scope of the project, this may mean making it available to other teachers in the building or school division or disseminating it statewide or nationally. It is possible that in some instances the team may even pursue commercial publication of a curriculum that is especially strong or innovative.

**SUMMARY**

Administrators who are knowledgeable about the special education curriculum are able to provide effective leadership and support for their teachers who serve students with disabilities. This chapter provided an overview of the major curriculum options appropriate for students receiving special education. In addition, systematic processes for appraisal, selection, and adaptation of existing materials or the development of a new curriculum have been offered. Done well, the process of curriculum development is both challenging and resource intensive. For this reason, location of appropriate curricula and adaptation for their use with targeted students is generally advised over development of a new curriculum. However, given the unique needs of learners and the limited availability of curricula in certain areas, it will be necessary at times to develop some curricula locally. The approach described in this chapter can lead to the production of a curriculum that meets local needs and is also worthy of dissemination.
REFERENCES


APPENDIX A

Curriculum Evaluation Guide
Curriculum Evaluation Guide

Name of Reviewer: ____________________________ Title: ____________________________

Title of Curriculum: ____________________________________________________________

Source/Publisher: ________________________________________________________________

Recommended Grade Level(s): ____________________________________________________

Format: _______________________________________________________________________

Directions: Carefully read through all curriculum materials. Then rate the curriculum on each of the 22 items using the following scale:

1 - Curriculum meets the standard
2 - Curriculum could be modified to meet the standard
3 - Curriculum does not meet the standard

GENERAL ADEQUACY

1. Substantive rationale and purpose
   1 2 3

2. Clearly defined goals and objectives
   1 2 3

3. Curriculum content appropriate to objectives
   1 2 3

4. Significant content appropriate to the discipline/subject matter area
   1 2 3

5. Emphasis on critical thinking and problem solving
   1 2 3

6. Coherent structure and order to content
   1 2 3

7. Global, multicultural perspective
   1 2 3

8. Instructional strategies appropriate to objectives
   1 2 3
9. Appropriateness for developmental levels and styles of intended learners

10. Responsiveness to affective and social needs of intended learners

11. Varied strategies for both individuals and groups

12. Authentic, curriculum-based evaluation procedures

13. Technical adequacy of media and technology

14. Additional, supportive resources for teachers and learners

CONSIDERATIONS FOR STUDENTS WITH DISABILITIES

15. Relevance of the curriculum to present and future environments

16. Emphasis on data-based instructional decision making

17. Attention to development of independence and social competence

18. Structured lessons geared to stages of learning

19. Appropriate teacher modeling, cueing, and reinforcement

20. Varied formats and pacing for guided and independent practice

21. Provision for appropriate assistive technology

22. Attention to maintenance and generalization

TOTALS _ _ _

COMMENTS: