ED 336 899                                        EC 300 631

AUTHOR        Wheeler, John J.
TITLE         Educating Students with Severe Disabilities in
              General Education Settings: A Resource Manual.
PUB DATE      91
NOTE          32p.
PUB TYPE      Information Analyses (070)

EDRS PRICE    MF01/PC02 Plus Postage.
DESCRIPTORS   Classroom Techniques; Educational Needs; Educational
              Quality; Elementary Secondary Education;
              *Mainstreaming; *Severe Disabilities; *Student
              Evaluation; *Student Needs; *Teaching Methods

ABSTRACT
              This paper reviews literature relating to the
educational needs of children with severe disabilities and describes
methods to facilitate inclusion of these children into integrated
educational settings. The paper defines use of the term "learners
with severe disabilities" and outlines trends in placement of these
learners. Components of a quality education are identified, including
its age appropriateness, specific objectives, functional activities,
consistent cue hierarchy, systematic data-based instruction, periodic
program review, community-based instruction, integrated delivery of
related services, interactions with nondisabled peers, transition
planning, and home-school partnership. A synthesis of the literature
on assessment of learners with severe disabilities emphasizes the use
of ecological inventories and transdisciplinary models. Modifications
designed to facilitate inclusion of learners with severe disabilities
in integrated educational settings are then discussed, including
improved accessibility, increased teacher familiarity with
specialized needs of students with severe disabilities, and others.
(Includes 21 references.) (JDD)

Educating Students with Severe Disabilities in

General Education Settings: A Resource Manual

John J. Wheeler, Ph.D.

University of South Dakota

Running head:   SEVERE DISABILITIES

# Abstract

The purpose of this paper is to provide a resource manual for teachers and related service personnel regarding the education of children with severe disabilities in general education settings. Included in this manual is a synthesis of literature relating to the educational needs of children with severe disabilities and methods to facilitate inclusion of these children into integrated educational settings.

Educating Students with Severe Disabilities

in General Education Settings:    A Resource Manual

Introduction

The practice of integrating students with disabilities
into general education settings, most commonly referred to
by many as mainstreaming, has traditionally focused it's
efforts on students with mild and/or moderate disabilities.
Not until recently has the practice of integrating students
with severe disabilities occurred.  The integration of
students with severe disabilities known as inclusion, allows
for children with severe disabilities to be educated in
their neighborhood schools with non-disabled same aged
peers, and access to normalized educational experiences
(Giangreco, 1989; Villa & Thousand, 1988; York & Vandercook,
1990).

The concept of inclusive schooling has been ever
increasing throughout the United States and Canada (York &
Vandercook, 1990) and has perhaps been most successfully
operationalized in the state of Vermont.  Many school
districts in the state of Vermont have fully implemented the
practice of inclsuion and have generated much of the
existing data on implementation strategies and outcomes

(Giangreco, Edelman, & Dennis, 1991; Thousand & Burchard, 1990; Thousand, Fox, Reid, Godek, Williams, & Fox, 1986). Although much has been disseminated from these projects there is still a need for more information relating to the implementation of such programs.

In the state of South Dakota, where such a statewide systems change is presently in progress and other states currently in the developing stages of systems change, school districts and their personnel are in need of information which will assist them in designing and implementing "best practices" related to inclusion (Wheeler & Reetz, 1991). Many general and special educators, administrators, and related service personnel have little or no training in the area of severe disabilties nor the concepts of collaboration, consultation, and team building. The present resource manual attempts to fill a portion of this void by providing the reader with a systematic overview of education for learners with severe disabilities and a synthesis of selected readings which examine the inclusion of these students into general education settings.

Definition of Learners with Severe Disabilities

Learners with severe disabilities are generally considered to be those children who exhibit severe intellectual disabilities and or one or more other types of disabling conditions (i.e., deaf, blind, communication, physical, behavioral, health impaired). Due to the intensity of their disabilities these children often pose a significant challenge to professionals engaged in the education of these children (Orelove & Sobsey, 1987). This group of children constitutes approximately .05% of the school age population and are often referred to as a low incidence disability group (Snell, 1987).

Educating Learners with Severe Disabilities

Traditionally it was considered an appropriate education for learners with severe disabilities to be educated in special schools or classrooms segregated from the rest of society. This practice has diminished somewhat with the movement toward inclusion and heterogeneous schooling for all children. In attempting to provide educational services to children with severe disabilities care must be given to ensure that educational programming is of the highest quality and promotes the individualized educational needs of the learner.

Bates, Renzaglia, and Wehman (1981) offerred 12 characteristics of an approriate education for students with severe disabilities. These include the following components (a) age appropriate curriculum and materials; (b) specific objectives; (c) functional activities; (d) consistent cue hierarchy; (e) data collection and charting; (f) periodic revision of the IEP; (g) classroom schedule; (h) instruction outside the classroom; (i) integrated therapy; (j) instruction in small groups; (k) interaction with nondisabled; and (l) family involvement. A recent study conducted by Williams, Fox, Thousand, and Fox (1990) identified "best educational practices" and their level of acceptance and implementation for students with severe disabilities in Vermont. The nine best practices which were identified included: (a) age appropriate placement in local schools; (b) integrated delivery of services; (c) social integration; (d) transition planning; (e) community-based training; (f) curricular expectations; (g) systematic data-based instruction; (h) home-school partnerships; and (i) systematic program evaluation. At this juncture further elaboration is needed to clarify each of these components for the reader.

Part I

Components of a Quality Education for Learners
with Severe Disabilities

Age Appropriate

Age appropriate refers to structuring curriculum and
educational placement based upon the student's chronological
age as opposed to mental age.  As an example, it would not
be age appropriate to place a sixteen year old youngster who
is severely intellectuallyly disabled into a classroom with
pre-schoolers.  The curriculum, classroom placement, and
instructional environment should all embody what is typical
for children of that chronological age group.  As Williams
et al (1990) have identified,  such a placement should also
be within the student's local public school.  Such a
practice reflects the idea of children attending
neighborhood schools rather than being sent to special
schools far from their locales which serve only children
with severe disabilities.

Specific Objectives

A necessary component to an educational program for
students with severe disabilities are specific objectives as
part of the student's individualized educational plan (IEP).

8

As Bates et al., (1981) indicate these objectives should
reflect learning conditions, observable behavior or
performance, and performance criterion. Objectives should
be meaningful to the individual student and based upon
careful assessment of the student, his/her environment(s),
and parental input. The formation of objectives derived
from pre-packaged curriculum guides or developmental
checklists should be avoided at all costs. Such
pre-packaged materials are not learner or setting specific
enough to fully benefit the individual needs of the learner
with severe disabilities.

Functional Activities

This term refers to teaching students with severe
disabilities skills and behaviors that are most meaningful
to them in their present and future environments.
Functional activities are those skills or behaviors which
are as real to life as possible and minimize the use of
simulation. As an example, if the student in question has a
skill deficit in communication, specifically in the area of
initiating requests, it would be more advisable to teach
this skill in the context of the natural environment (i.e.,
classroom, cafeteria, job site, leisure setting) as opposed
to an isolated clinical room with a speech/language
pathologist. As a result of utilizing such an approach

there are many benefits to the learner. Such benefits
include the enhanced probability of generalization occurring
on the part of the learner, the skill or activity is
addressed as an integrated goal and objective on the part of
teachers and related service providers, and is addressing an
immediate need the student has in his/her present
environment, or one which will be needed in future
environments.

Consistent Cue Hierarchy

An effective instructional program for students with
severe disabilities will utilize consistent instructional
procedures. Such instructional procedures will include the
use of a consistent cue or prompt hierarchy (Bates et al,
1981). Utilization of cues or prompt systems will maximize
student performance and minimize errors. As Bates et al;
(1981) suggest, cue or prompt systems will vary from
individual to individual, but as a general rule, a teacher
should select the least intrusive prompt that will promote
independence and success on the part of the learner in
performing the task. Cue or prompt systems should clearly
specify the system and how it is to be used. As an example,
will it be a system of least to most prompts? If so, what
are the level of prompts? One format which could be used
when teaching a task to a learner with a severe disability

is to allow for independent performance by the learner,
allow 3-5 seconds to elapse before initiating an indirect
verbal cue (e.g., whats next?), allow 3-5 seconds to elapse
before iniating a direct verbal cue (e.g., pick up your
tray); allow 3-5 seconds to elapse before iniating a direct
verbal cue with gesture (e.g., teacher points with finger to
the tray and says, "pick up your tray); allow 3-5 seconds to
elapse before iniating a physical prompt (e.g., teacher
physically assists student in picking up the tray). Such
specificity of cue and prompt procedures is needed to
promote the success of an instructional program when
teaching learners with severe disabilities.

Systematic Data Based Instruction

As Williams et al; (1990) have described, the term
systematic data based instruction refers to " schedules of
daily activities, clearly defined objectives, reliably
implemented instructional programs, and systematic data
collection and analysis and that instructional decisions
should be based upon documentation of student progress"
(p.121). Such data based instruction is critical when
attempting to evaluate student performance from an objective
and criterion based approach. It alleviates subjective
decision making, and provided charting is done on a daily
basis promotes a daily check on student performance and

teacher effectiveness.   Not only is the performance of the student monitored by such practices, but teachers can determine if their instructional delivery should be modified to promote enhanced performance on the part of the learner (Bates et al., 1981).  If daily charting is logistically difficult for the teacher, a weekly probe format could be used,  where performance data would be collected on a weekly basis on a targeted skill.  The use of such practices will closely monitor student and teacher performance and strengthen the level of accountability.

Periodic Program Review

Bates et al., (1981) has referred to this as periodic revision of the IEP, and Williams et al., (1990) refer to it as systematic program evaluation.  Basically, they refer to the same thing and that is regular review of the student's educational plan.  As Bates et al., (1981) has indicated, program review should occur at shorter intervals due to the "high variability" of learning rates for chilaren with severe disabilities.  Annual review which is often the practice used by school districts and required by law may arbitrarily "lock" many children into goals and objectives which are no longer appropriate nor effective.  Close scrutiny must be given to this process to facilitate student progress and effective delivery of services to the child.

It is recommended by Williams et al., (1990) " that such review include the entire staff and should provide staff members with information regarding the achievement of program goals; student progress; discrepencies needing remediation; directions for future programs change; and program impact upon students, their families and the community" (p.121).

Community-Based Instruction

Community-bsed instruction refers to instruction outside the classroom, and is a component of an appropriate education for learners with severe disabilities which must be included in the student's educational program. Community-based instruction includes such activities as shopping in grocery stores, working under the supervision of a job coach at job training sites, learning to use recreational facilities, preparing meals at home, or utilizing public transportation. Such training activities prepare students for life beyond school by focusing on required life skills in their natural environments promoting generalization in the learner. With the movement toward inclusion of students with severe disabilities into general education settings a debate has arisen among professionals. At the center of the debate is whether or not full inclusion in general education settings is appropriate at the expense

/

of the learner having experiences in environments outside the traditional classroom. Brown, Schwarz, Udvari-Solner, Kampshroer, Johnson, Jorgenson, and Gruenewald, (1991) believe that if students with severe disabilities will be expected to function in integrated environments once out of school then while in school they should receive formal training to prepare them adequately to assume such roles. Such decisions regarding the extent of community based training should ultimately be made based upon the individual needs of the learner.

Brown et al., (1991) offer some considerations when combining inclusion and community-based instruction for learners with severe disabilities. These considerations include: (a) the chronological age of the student; (b) the nature of the related services received by the student; (c) the number of environments in which a student functions; (d) personnel qualities; (e) effects on social relationships; (f) parent/guardian/student priorities; (g) probability of skill acquisition; (h) functionality; and (h) preparation for postschool life. As stated earlier, community-based instruction is as much a realistic need for learners with severe disabilities is inclusion within general education settings. The extent to which one or the other is programmed for the learner must be carefully considered and

based upon the needs of the learner and not because of professional or philosophical bias. The guidelines offerred by Brown et al., (1991) serve as a protocol to adhere to when making such important programmatic decisions.

Integrated Delivery of Related Services

This component of an appropriate education for learners with severe disabilities refers to an integrated delivery of related services such as physical therapy, occupational therapy, and speech/language therapy. As Williams et al., (1990) indicate a student's IEP should reflect the integrated instruction on educational and related service goals. The rationale for this is to avoid fragmentation of goals for the student. It is common for children with severe disabilities to receive many related services such as physical and occupational therapy due to many having multiple disabilities. It is viewed as more adventatious to overlap such goals across team members which focus intensely on the most pressing needs of the child in an effort to maximize efficient use of instructional time. Giangreco, Cloninger, and Iverson (1990) have offerred a systematic method of assessment (i.e., C.O.A.C.H. Version 6.0) for children with severe disabilties which promotes integrated service delivery and goal overlapping.

Interactions with Nondisabled Peers

Social and interpersonal interactions between students with severe disabilities and non-disabled same aged peers is a desired quaility of an educational program for students with severe disabilities. Not until recently has the opportunity for such social interactions been probable due to many children with severe disabilities receiving their education in segregated enviornments. Inclusion has promoted this practice since it is far more probable that social interactions will occur between students with severe disabilities and their nondisabled peers if they attend the same schools. There have been recent attempts in the research literature to aid in our understanding of how nondisabled children feel about students with severe disabilities and how professionals can better facilitate inclusion.

Schnorr (1990) conducted a qualitative investigation which involved interviews and observations of a first grade class which had as a part-time member a child with moderate mental retardation. The results indicated that there was a discrepency in how nondisabled children felt about "Peter" the student with moderate mental retardation who was only a class member on a part-time basis. Such things as relationship building, friendship, and a sense of belonging

are important questions which may not be addressed by
part-time inclusion.  As such relationships are established
at school, there will be a greater liklihood that such
interactions will occur in settings away from school such as
in neighborhoods and other community settings.  The
relationship building which can occur through inclusion does
not only enhance the lives of students with severe
disabilities, but can also have a positive impact in the
lives of students who are nondisabled.

Peck, Donaldson, and Pezzoli (1990) studied 21
nondisabled high school students about the benefits they had
experienced as a result of developing relationships with
students who had moderate or severe disabilities.  These
benefits included (a) improvements in self-concept, (b)
growth in social cognition, (c) increased tolerance of
others, (d) reduced fear of human differences, (e)
development of personal principles, and (f) interpersonsla
cceptance and friendship.  The results of this study
although limited provide us with positive evidence of the
benefits of inclusive schooling for fostering relationships
between students with severe disabilities and their
nondisabled same aged peers.

Transition Planning

Transitions ⸱ an important part of life and inc⁷⸱⸱⸱ such things as changing schools and building new relationships which can produce disruption and stress (Will, 1984). At each stage of education for a child with severe disabilities transition planning should occur. This includes movement from early childhood special education to elementary school, elementary to high school, and high school to adult services (Williams et al., 1990). Formal transition planning should take place in each of these enviornments prior to movement and each child's IEP should have objectives in the area of transition. Longitudinal goals and objectives are very important when devising the educational plan for a child with a severe disability. If efforts can be made to provide follow-up as the student transitions between programs successful transition becomes a more realized outcome.

Components of an effective transition planning process include (a) organizing a transition planning team, (b) addressing the area of transition at the student's IEP meeting, (c) implementing goals and objectives which will address both the immediate and future needs of the student, (d) conduct an exit meeting prior to a move which will promote communication between parents, professionals, and

programs, and (e) ensure follow-up once the student has transitioned to the next environment. Such a planning process places a value on preparing the student with the skills he/she will need not only to function in his/her immediate environment but in future environemnts. It also ensures accountability within an educational program by preparing for measurable outcomes which will have a planned and direct impact on the student's life while in school and beyond school.

Home-School Partnership

Parent involvement in each student's education is by far the most important component of an appropriate education for learners with severe disabilities. As protected by law, parents must have the opportunity to particpate actively in the development of their child's IEP and the delivery of educational and related services (Williams et al., 1990). School districts must have clearly defined methods for facilitating communication with parents and providing parents with information.

One very effective method for involving parents in the IEP planning process is through the use of the C.O.A.C.H. (Cayuga-Onondaga Assessment for Children with Handicaps) Version 6.0 developed by Giangreco et al., (1990). The

C.O.A.C.H. Version 6.0 is an assessment and planning tool which is designed to develop relevant educational programs in integrated settings. One of the many positive aspects of this assessment device is the priority it places on parental input in the development of the student's IEP. The major purpose of the C.O.A.C.H. in the pre-assessment stage is to discern family priorities for the education of their child. Only though maximizing parental involvement in the educational process of students with severe disabilities do we as professionals fully understand the needs of the child within the context of their families. The development of a home-school partnership will place a greater priority on the "total child" and not simply the child while he/she is in school.

The need for family involvment in the educational planning of the child is well addressed by Giangreco et al., (1990) in six major beliefs: (a) families know certain aspects of their children better than anyone else, (b) families have the greatest vested interest in seeing their children learn, (c) families are likely to include the only adults involved with their children's educational/therapeutic program throughout the entire school year, (d) famililies have access to information about their children in home and community settings to which others have

no access, (e) families have the ability to positively
influence the quality of educational service provided in
their community, anu (f) families must live with the
outcomes of decisions made by educational/therapeutic teams
24 hours a day, 365 days a year.

## Part II

### Assessment of ᵤearners with Severe Disabilities

It has been a common practice in the field of special
education to classify students with disabilities based on
the outcomes derived from standardized tests. The
information derived from such instruments has failed to
provide useful information where students with severe
disabilities are concerned (Brown, 1987). In order to fully
maximize the assessment process with learners who experience
severe disabilities a variety of measures must be used to
identify the individual needs of the student and level of
disability.

One method of informal assessment which is designed
specifically for students with severe disabilities is the
ecological inventory strategy. The ecological inventory or
"top down" (Brown, et al., 1979) is a systematic method used
to identify the skill demands found in the student's present
or future environments. These skill demands once

21

identified, become the source of the curriculum content and in determining the training needs of the student (Brown, 1987). The postive characteristics of this approach is that it focuses on functional, age appropriate skills which are required in the school, home, community, recreational/leisure, and work environments of the student. There are six basic components of an ecological inventory as identified by Wehman, Renzaglia, and Bates (1985). These include:

1. Identify curriculum doamins (school, home, community, recreation/leisure, and work environments);

2. Identify and survey current and future natural environments;

3. Delineate these environments into sub-environments;

4. Inventory these sub-environments for the essential skills required of these environments;

5. Determine which of these skills the student can presently perform;

6. Prioritize the skills that the student cannot

perform from most important to teach to least
important.

As a result of such a comprehensive analysis a
fucntional curriculum is derived which will result in the
prioritization of training goals (Brown, 1987).  There are
numerous guides to conducting ecological assessment for
students with severe disabilities.  One of the most
practical and comprehensive of these guides is the
C.O.A.C.H. Version 6.0 developed by Giangreco et al.,
(1990).  This comprehensive assessment and planning
instrument is designed to assist in developing educational
programs for students with severe disabilities in integrated
settings (Giangreco et al., 1990).   As stated by Giangreco
et al., (1990),

> the C.O.A.C.H. is devided into three Levels of
> Assessment and Planning - General, Refined,
> and Ongoing.  The tool provides methods to : (a)
> determine a student's top learning priorities from a
> family-focused perspective; (b) translate priorities
> into goals; (c) determine the breadth of curriculum
> beyond the top priorities; (d) to identify management
> needs related to instruction; (e) develop short-term
> objectives, and (f) plan for meeting learning and
> management needs within general education schedules
> and routines" (p.1).

Another example of an ecological assessment instrument
is the T.A.C.T. (Technology-Assisted Contigency Training)
assessment and program planning instrument for learners with
severe disabilities utilizing simple technology

(1988 CMECSU). Basically the T.A.C.T. is a framework for conducting an ecological assessment to determine how simple technology (i.e., switches, battery operated toys or electrical appliances, and micrecomputers) might be used as instructional or interactive tools to facilitate learning or participation by learners with severe disabilities.

Transdiciplinary Model

Assessment of students with severe disabilities has traditionally been administered by multidisciplinary or interdisciplinary teams. The drawback to such approaches is that individual assessments are performed by individual team members by discipline and often lead to the development of goals which are discipline specific (Orelove & Sobsey, 1987). As stated earlier one aspect of an appropriate education for learners with severe disabilities is the practice of integrated therapy. One method which has been proposed more recently to facilitate such an integrated model of assessment and therapy is the transdisciplinary approach (Orelove & Sobsey, 1987). Often when utilizing the transdisciplinary model, individual assessments by specific discipline areas are conducted (i.e., speech/language, physical and/or occupational therapy), however with this approach team members reconvene and discuss training

priorities and establish goals and objectives for the student in a collaborative manner (Orelove & Sobsey, 1987).

Some of the potential benefits of a transdciplinary model for goal formation and delivery of services are that the learners ability to demonstrate skill acquisition, maintenance, and generalization are enhanced. Another benefit is that therapy and related services are integrated except in special circumstances where the health and dignity of the child would clearly be best served by receiving therapy and related services in clinical confines such as a nurses room. Lastly, the benefits of the transdisciplinary model promotes efficiency of interventions and follow-up (Giangreco, York, & Rainforth, 1989).

PART III

Modifications Designed to Facilitate Inclusion

Classroom and Instructional

When attempting to educate learners with severe disabilities into general education settings it is quite apparent that certain modifications will be necessary. These modifications are usually specific to the classroom enviornment and instructional procedures.

Classroom modifications are determined by the needs of the children served. The teacher must take into consideration the accessibility of the room and ₋acilities. Are there any architectural barriers for students confined to wheelchairs or for students who use walkers? Does the physical arrangement of the room allow for students to freely access desks, aisles, and all areas of the room. Other modifications may include selective seating assignments. These may include placing students with sensory losses (vision and hearing) at the front of the room.

Another issue related to classroom modifications is for teachers and related service personnel to be familiar with the specialized needs of students with severe disabilities. Balukas, Lepelstat, and Sulner (1990) of the New York City Board of Education provide some guidelines when serving children with severe disabilities who are also medically fragile in general education settings. These include: (a) type(s) of medication the student is currently taking, (b) seizures - including the history of seizure activity, pre and post seizure indicators, frequency and dutration of seizure, (c) immunization record, (d) toileting/catheterization - degree of independence the student has when toileting, toileting schedule, supervision

and assistance needed when the child is toileting, will assistance be male or female, adapted bathrooms, showers, furniture, change of clothing, and instruction for promoting independent functioning, (e) menses cycle - level of assistance needed, supplies, disposal, privacy, and instruction for promoting independent functioning, (f) nutritional and feeding needs - does the child self-feed or does the child need tube feeding, does the child have food allergies or restrictions in the diet, is supplemental feeding needed, (g) mode of communication - verbal, sign, communication board, or augmentative communication device, (h) mobility - is the child independent, walks with assistance, uses support devices (cane, crutches, walker, etc..), or is non-ambulatory (uses a wheelchair), (i) behavior - are there behavioral deficits or excesses, and (j) classroom assistance - the level of adaptive equipment and personal support needed to maintain the child in the general education setting.

Other forms of modification within the classroom which facilitate inclusion are described in the preceding section and are taken from Wheeler and Reetz (1991).

> (a) Cooperative Learning - The instructional
>     model in which students work together
>     as a team to complete activities

or assignments (in contrast to
competitive learning, in which
each student works alone).

(b)   Peer Buddies - One type of peer
support network which is comprised of
volunteer students who assist specific
students through linking them with
their social netowrk, assisting the student
in acclimating to their school networks, and
sharing with others the needs of the special
friends.

(c)   Peer Tutoring - When a student provides
instruction to another student.

(d)   Group Problem Solving - Involving the entire
school in creating solutions to the inclusion
of students with severe disabilities into the
school.

(e)   Creating School Support Networks - This
involves creating support networks around
the student with a disability to facilitate
inclusion.

Summary

In attempting to educate learners with severe
disabilities in general education settings the individual
and diverse needs of the learner must be the foremost
concern and from which the educational program is planned.
To assume that due to the often extreme intellectual,
physical, and behavioral disabilities often experienced by
these children that these children cannot benefit from
integrated education would be an injustice.  These children
need and desire the opportunity to engage in education in
their community schools and to socialize and develop friends
of the same age who may be disabled or nondisabled.
Inclusion promotes such opportunities for all children.

References

Balukas, R., Lepelstat, E.L., & Sulner, I. (1990). Integration fever: Effectively educating medically fragile/physically involved students in general education. Paper presented at the meeting of the Council for Exceptional Children, Toronto, Ontario, Canada.

Bates, P., Renzaglia, A., Wehman, P. (1981). Characteristics of an appropriate education for severely and profoundly handicapped students. Education and Training in Mental Retardation, 16, 142-149.

Brown, F. (1987). Meaningful assessment of people with severe and profound handicaps. In M.E. Snell (Ed.), Systematic instruction of persons with severely handicapped individuals. Austin: Pro Ed.

Brown, L., Branston, M.B., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenewald, L.A. (1979). A strategy for developing chronological age appropriate and functional curricular content for severely handicapped adolescents and young adults. Journal of Special Education, 13, 81-90.

Brown, L., Schwarz, P., Udvari-Sohner, A., Kampschroer, E. F., Johnson, F., Jorgenson, J., & Gruenewald, L. (1991). How much time should students with severe intellectual disabilities spend in regular education classrooms and elsewhere. Journal of the Association for Persons with Severe Handicaps, 15, 231-240.

Central Minnesota ECSU Technology Project (1988). St. Cloud, MN: Author.

Giangreco, M. F., (1989). Facilitating integration of students with severe disabilities: Implications of planned change for teacher preparation programs. Teacher Education and Special Education, 12, 139-147.

Giangreco, M. F., Edelman, S., & Demis, R. (1991). Common professional practices that interfere with the integrated delivery of related services. Remedial and Special Education, 12, 16-24.

Giangreco, M. F., Cloniger, C. J., & Iverson, U. S. (1990). C.O.A.C.H.: Cayuga-Onondoga assessment for children with handicaps. Version 6.0. Burlington: University of Vermont, CDD.

Giangreco, M. F., York, J., & Ranforth, B. (1989).
    Providing related services to learners with severe
    handicaps in educational settings:  Pursuing the least
    restrictive option.  Pediatric Physical Therapy, 8,
    55-63.

Orelove, F. P., Sobsey, D. (1987).  Educating children with
    multiple disabilities:  A transdisciplinary approach.
    Baltimore:  Brookes.

Peck, C. A., Donaldson, J., & Pezzoli, M. (1990).  Some
    benefits nonhandicapped adolescents perceive for
    themselves from their social relationships with persons
    who have severe handicaps.  Journal of the Association
    for Persons with Severe Handicaps, 15, 241-249.

Schnorr, R.F. (1990).  "Peter-He comes and goes:  First
    graders perspectives on a part-time mainstreamed student.
    Journal of the Association for Persons with Severe
    Handicaps, 15, 231-240.

Snell, M. E. (1987).  Systematic instruction of persons
    with severe handicaps.  (3rd ed.)  Columbus:  Merrill.

Thousand, J. S., & Burchard, S. (1990).  Social integration:
    Special education teacher's attitudes and behaviors.
    American Journal on Mental Retardation, 94, 407-419.

Thousand, J. S., Fox, T., Reid, R., Godek, J., & Williams,
    W. (1986).  The homecoming model:  Educating students who
    present intensive educational challenges within regular
    education environments.  Monograph No. 7-1.
    Burlington:  University of Vermont, CDD.

Villa, R. A., & Thousand, J. S. (1988).  Enhancing success
    in heterogeneous classrooms and schools:  The power of
    partnership.  Teacher Education and Special Education,
    11, 144-154.

Wehman, P., Renzaglia, A., Bates, P. (1985).  Functional
    living skills for moderately and severely handicapped
    individuals.  Austin:  Pro Ed.

Wheeler, J.J., & Reetz, L. J. (1991).  Training teachers
    for all children in South Dakota:  A training program to
    prepare master level teachers of special education in the
    consultative teacher model of education service
    delivery.  Pierre, SD:  South Dakota State Department of
    Education, Office of Special Education.

Williams, W., Fox, T. J., Thousand, J., & Fox, W. (1990).
   Level of acceptance and implementation of best practices
   in the education of students with severe handicaps in
   Vermont.  Education and Training in Mental Retardation,
   25, 120-131.

York, J., & Vandercook, T. (1990).  Strategies for achieving
   and integrated education for middle school students with
   severe disabilities.  Remedial and Special Education,
   11, 6-16.