RELATED SERVICES AND THE TRANSDISCIPLINARY APPROACH

Parent and Service Provider Training Module

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Giangreco, M. F. & Eichinger, J. (1991). Related services and the transdisciplinary approach. [Parent and service provider training module. In M. Anketell, E. J. Bailey, J. Houghton, A. O' Dea, B. Utley, & D. Wickham, (Eds.), A series of training Modules for education children and youth with dual sensory and multiple impairment. Monmouth, Or: Teaching Research Publication.

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I. General Information - Overview

A. Parent and Service Provider Training Module

Related Services and the Transdisciplinary Approach

B. Purpose of the Module

The purpose of this module is to assist parents and service providers in become more knowledgeable about the team structures that include delivery of therapeutic services for children and youth with dual sensory and multiple impairments. The content of the module will focus on issues related to transdisciplinary teamwork. Lectures and activities will be related to the following topics: a) functions and roles of team members; b) models of service delivery; and c) benefits of the transdisciplinary approach.

C. Intended Audience

This information is intended for parents, family members, and service providers of children and youth with dual sensory and multiple handicaps. Over the past several years, leaders in the field of special education have recognized the importance of focusing on the family unit, rather than on parents exclusively. Therefore, this module is appropriately conducted with parents, guardians, siblings, extended family members, friends, advocates, or service providers who are currently involved in the educational planning for individuals with handicaps. In many cases, it would be appropriate to include the student in this training experience. A decision to include the student should be made on an individual basis.

D. Level of Training

Awareness

E. Entry Level Skills

Participation in this awareness training session does not require any prerequisite or entry level skills.

F. General Outcome Competencies

Participants will receive information regarding:

1. the generic functions served by all team members when working with students who have dual sensory and multiple impairments;

2. roles and responsibilities of various team members;

3. implications of the "Related Service" section of P.L. 94-142;

4. predominant types of service delivery models used in schools; and

5. benefits of the transdisciplinary approach to education and habilitation.

G. Module Delivery Organization

1. Number of Lectures: 3

2. Amount of Time: Three ninety minute lectures for a total of four and one-half hours. Additionally, several group activities and opportunities for discussion are also included. The combination of lecture, group activities, and discussion results in a total training session length of approximately one and one-half days.

3. Materials and Equipment: Materials and equipment will vary depending upon the activities and presentation style of the trainer. It is recommended that the trainer use a variety of presentation materials and equipment (e.g., overhead transparencies, slides, and actual equipment used by members of each of the disciplines).

H. Special Instructions

1. The trainer should be sensitive when addressing handicapping conditions of an individual by acknowledging the individual first and the handicapping condition second. For example, during presentations, the trainer should refer to "individuals with deaf-blindness (or dual sensory impairments) and multiple impairments" rather than a "deaf-blind individual." The two terms, "deaf-blindness" and "dual sensory impairments," are used interchangeably throughout the module.

2. The trainer should be aware of the use of professional jargon during presentations. This does not imply that essential vocabulary from the various disciplines should not be used. Basic terminology should be defined at the beginning of each training session as family members and service providers will need to learn some of this terminology to communicate effectively with each other. Trainers should encourage the participants to ask questions regarding unfamiliar terms and limit the use of sophisticated terminology. When possible, use familiar terms, such as "bend" instead of "flex" and "backlying" instead of "supine".

II. Training Instructions

A. Trainer Preparation

The trainer should be familiar with the basic principles presented in each training session. This can be accomplished by reading the literature suggested and communicating with various professionals. It is not important for the trainer to have expertise in all disciplines; however, it is necessary for the trainer to have experience as a team member.

B. How to Deliver the Module

It is recommended that the presentations include lectures, training activities, and discussion. Suggested training activities are listed under each content section. The trainer is encouraged to develop and use original resources to supplement the presentations.

C. Training Tips

Embedded within the text of the module are suggestions for ways in which the trainer can enhance participant attention and learning. These suggestions are typed in bold-faced italics and enclosed in a special bracket. Here is an example.

> ***Pause here and ask participants to share any questions they may have.***

III. Content - Part I: Functions and Roles of Team Members

A. Module Delivery Organization

1. Lecture Number: 1

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

   Participants will receive information regarding:

   a. the importance of families as consumers of services;

   b. generic functions served by all team members;

   c. roles and responsibilities of team members with whom they are likely to interact; and

   d. the overlap among the various disciplines.

B. Content Overview Outline

1. Families as Consumers of Professional Services

2. Functions of Educators and Related Service Professionals

3. Roles and Responsibilities of Team Members

   a. Occupational Therapist

   b. Orientation and Mobility Instructor

   c. Parent

   d. Physical Therapist

e. Speech/Language Therapist

f. Teacher

C. Suggested Readings for the Trainer

Sections of the content in the readings listed below served as the basis for development of this module. The trainer will need to obtain these resources and master the content prior to delivering the module.

Campbell, P. (1987). The integrated programming team: An approach for coordinating professionals of various disciplines in programs for students with severe and multiple handicaps. *The Journal of The Association for Persons with Severe Handicaps, 12*, 107-116.

Giangreco, M. F. (1990). Making related service decisions for students with severe disabilities: Roles, criteria, and authority. *Journal of the Association for Persons with Severe Handicaps, 15* (1), 22-31.

Goetz, L., Guess, D., & Stremel-Campbell, K. (1987). *Innovative program design for individuals with dual sensory impairments.* Baltimore: Paul H. Brookes.

Hart, V. (1977). The use of many disciplines with the severely and profoundly handicapped. In E. Sontag, J. Smith, & N. Certo (Eds.), *Educational programming for the severely and profoundly handicapped* (pp. 391-396). Reston, VA: Council for Exceptional Children, Division of Mental Retardation.

Orelove, F. P., & Sobsey, D. (1987). Designing transdisciplinary services. In F. P. Orelove & D. Sobsey (Eds.), *Educating children with multiple disabilities: A transdisciplinary approach* (pp. 1-24). Baltimore: Paul H. Brookes.

D. Introduction to the Module, Part I

Introduce participants to this portion of the module by displaying Overhead 1. Refer to it as you review the following topics with participants. Next, you may want to say:
"For the next hour and a half we will cover the following topics:
1. *families as consumers of professional services;*
2. *functions of educators and related service professionals; and*
3. *roles and responsibilities of team members."*

E. Specific Content

1. Families as Consumers of Professional Services

Begin this session by asking participants the following questions:
1. *"Why is it important for families to be involved with professionals who provide services to their children?"*
2. *"What can the family as a consumer of professional services contribute?"*

As participants respond, write their answers on a blank transparency, flip chart, or chalkboard. Add your own content if it is not covered by participants.

The following information listed below is a list of reasons why the role of families as consumers should be emphasized (Giangreco, Cloninger, & Iverson, 1990):

a. Families know many things about 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 the educational or therapeutic programs of their children throughout the entire school career.

d. Families have access to information about the capabilities of their children in home and community settings to which others have no access.

e. Families have the ability to influence the quality of educational services provided in their community.

f. Families must live with the outcomes of decisions made by educational or therapeutic teams 24 hours a day, 365 days a year.

2. Functions of Educators and Related Service Professionals

Display Overhead 2 and explain each item using the following narrative and examples.

The following functions may be carried out by any combination of team members. Each function is potentially important, though its degree of importance many vary depending on the individual needs of the child or youth. These are:

a. development of adaptations to encourage functional participation (e.g., selection or design of a microswitch to activate a blender);

b. facilitation of academic and functional skills relevant to the current and future needs of the student (e.g., development of a mobility program);

c. reciprocal consultation with colleagues;

d. removal or modification of barriers to participation (e.g., negotiating with Medicaid to enable purchase of a one-arm drive wheelchair);

e. prevention of regression (in sensory, physical, cognitive, or social/behavioral areas) or pain;

f. support and resource to families;

g. remediation or restoration of identified deficits (e.g., fitting of a hearing aid);

h. promotion of sequenced developmental skills within motor, cognitive, and social domains through functional activities (Uzgiris & Hunt, 1978; Wood, Combs, Gunn, & Weller, 1986)];

i. assessment and subsequent educational or therapeutic program development, implementation, and evaluation; and

j. consensus decision-making.

3. Roles and Responsibilities among Team Members

Roles of team members have been changing significantly over the past few years. In the past, specialists such as occupational, physical, and speech therapists worked in physically isolated areas (e.g., the "therapy" room) and pursued goals which were narrowly defined by their particular discipline. Today, in state-of-the-art programs, these and other specialists are synthesizing their competencies within a wider variety of academic and functional activities in ever increasing types of environments [e.g., regular education classrooms, other school settings, stores, restaurants, public buses, streets and roads, community work sites, recreational locations, or homes (Rainforth & York, 1987)].

Display Overhead 3 and say:
"The following professions are those most often represented on teams in educational settings."

The following descriptions are general and do not reflect all of the activities conducted by various professionals. These descriptions are designed to give the audience a general feeling for types of roles assumed by the different professionals rather than to provide a comprehensive overview. The members of an educational team are determined by the particular needs of the student. Therefore, other professionals also may be involved (e.g., psychologist, audiologist, social worker, nurse, or vocational specialist) for some children.

Refer to Overhead 3. The trainer should include descriptions of professionals that match needs of the participants. For example, students with medical complications may also have nurses and nutritionists as contributing team members. Ask participants to identify those professionals who serve their children or students.

a. Occupational Therapist (OT). Occupational therapists provide evaluation of and intervention for problems that interfere with functional performance in individuals impaired by physical injury, emotional disorder, congenital, or developmental disability. They use a program of purposeful activities to develop, improve, restore, or maintain adaptive skills. The activities are designed to achieve maximal physical, cognitive, or emotional functioning of individuals in school or other daily life experiences (American Occupational Therapy Association, 1987). Only occupational therapists who meet the certification standards of the American Occupational Therapy Association (AOTA) can provide occupational therapy services.

In school settings, occupational therapists are frequently engaged in activities, such as developing proper seating, developing positioning and handling strategies, designing adaptive equipment, designing handsplints and other orthotic devices, teaching self care and daily living skills, developing feeding programs, developing handwriting activities, and working on a variety of other functional, fine motor hand use activities. Occupational therapists also may be found supporting recreational and vocational programs, as well as working within social/emotional domains. Traditionally, OT's have relied on the use of purposeful activities to attain therapeutic outcomes.

NOTE: SOME STATES REQUIRE A PHYSICIAN'S PRESCRIPTION FOR OT SERVICES.

b. Orientation and Mobility Instructor (O & M). Orientation and mobility instructors provide evaluation and intervention related to the abilities of students with visual impairments to move through their environment. In addition, O & M instructors teach protective techniques, search techniques, safely orienting to the physical environment, and concept development. These skills assist students in developing independent travel within home, school, or neighborhood environments. O & M instructors also make recommendations regarding travel aids and equipment adaptations, such as marking a stove, or folding paper money for tactile identification. Much of the O & M instructor's work involves analysis of frequented environments, as well as instruction in those actual environments.

c. Parent. Parents and family members are essential team members. Family members provide valuable input and insights into educational planning by:

i. assisting in the determination of educational and functional priorities;

ii. reporting skill levels in home and other nonschool environments;

iii. identifying student preferences;

iv. highlighting student strengths;

v. sharing the family's aspirations and dreams for the student in the future;

vi. relaying historical information that may affect planning; and

vii. offering additional input that would typically be unavailable to school personnel.

Family members also may participate in the actual implementation and evaluation of certain instructional programs. Parent participation in program implementation should be individually determined based on the needs, values, and resources of the family. Parents have the unique opportunity and ability to place incoming recommendations into a meaningful historical and social context.

d. Physical Therapist (PT). "Physical therapy is a health profession concerned with providing services that prevent or minimize disability, relieve pain, develop and improve sensory and motor function, control postural deviations, and establish and maintain maximum performance within the individual's capabilities. Physical therapy services within the educational environment are directed toward the development and maintenance of the handicapped child's physical potential for independence in all education related activities. The physical therapist is a licensed health professional who has completed a program in physical therapy that has been accredited by a recognized accrediting agency" (American Physical Therapy Association, 1985). Physical therapists may use, "physical, chemical, or mechanical means including, but not limited to heat, cold, light, air, water, sound, electricity, massage, mobilization, and therapeutic exercise with or without assistive devices . . ." (American Physical Therapy Association, 1987).

In school settings, physical therapists are frequently engaged in activities, such as developing proper seating, positioning and handling, gait training, mobility instruction (including wheelchair use), selection and use of adaptive equipment, movement facilitation, maintaining joint flexibility and range of motion, gross motor programming, skin care to prevent skin breakdown, cardiovascular and cardiomuscular fitness, and a variety of other activities designed to assist students in benefiting from educational programs.

NOTE: SOME STATES REQUIRE A PHYSICIAN'S PRESCRIPTION FOR PT SERVICES.

Provide some examples or demonstrate some of these activities. Have some equipment available for a hands-on experience.

e. Speech/Language Therapist (S/LT). Speech/language therapists address areas such as disorders in fluency, voice, articulation, and expressive and receptive language. They may utilize a wide variety of nonvocal communication modes and symbol systems. For example, sign communication systems (e.g., manually coded English) and sign language (e.g., ASL, as well as other types of nonsymbolic and symbolic communication systems may be used. The speech/language therapist determines the child or youth's present level of functioning in terms of communication skills, and develops and implements communication programs that can be implemented by the entire team within a variety of relevant contexts. This communication program may include speech or nonspeech modes. Speech/language therapists also may develop and implement feeding programs and other activities related to oral motor functions, and social skills development.

Provide an example of how a speech/language therapist would perform some of these tasks in collaboration with other professionals.

f. Teacher (this may include regular educators, special educators, resource or consulting teachers, and teachers who specialize in vision or hearing needs). The role of the teacher involves developing and implementing educational programs in conjunction with other team members. As noted by Bricker (1976), the teacher often assumes the role of "educational synthesizer." Since the teacher is likely to be the staff member who has primary responsibility for the child or youth on a daily basis, he would be the logical person to oversee implementation and evaluation of the student's overall program. This role of synthesizer does not imply disproportionate decision-making authority or responsibility. Accountability should be clarified and agreed to by team members. In addition to the general functions served by all team members (e.g., facilitation of academic and functional skills, adaptations, or reciprocal consultation), the teacher is

also responsible for organizing the classroom environment with input from the team, assisting in the determination of an appropriate mixture of instructional experiences (e.g., individual, small group, and large group), providing systematic instruction, developing opportunities for interactions with nonhandicapped peers, as well as training and supervising paraprofessional staff. This role requires frequent, ongoing communication with team members, including students' families. Teachers may work within the range of academic curricula, as well as the life areas of independent living, community life, work, recreation/leisure, and regular education.

Distribute copies of Handout 1 to participants. Spend a few minutes reviewing the content. Ask participants if they have questions regarding the professional and support organizations listed.

F. Training Activities

1. Have professionals (in the audience) from the various disciplines address participants on the principle aspects of their jobs.

2. Show slides or videotapes from local school programs which depict examples of students working with team members in various settings.

3. Have participants share examples of the kinds of activities team members engage in with their children or students.

4. Bring a wide variety of adaptive equipment for the various disciplines [e.g., goniometer (PT); signature card, Braille writer, or magnifying glass (teacher of students with visual impairments); built-up spoon handle, plate guard, cut-out cup, or adapted switch (OT); or auditory trainer or communication board (S/LT).] Have participants sort items by the discipline with which they are associated. Discuss names and functions of equipment.

IV. Content - Part II: Models of Service Delivery

A. Module Delivery Organization

1. Lecture Number: 2

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

   Participants will receive information regarding:

   a. the federal definition of "related services" and the characteristics of those services;

   b. characteristics of a team;

   c. some of the common value systems used by professionals and parents and how these can affect teams; and

   d. the evolution of team interactions [e.g., multidisciplinary, interdisciplinary, and transdisciplinary (or integrated therapy)].

B. Content Overview Outline

1. Definition and Interpretation of "Related Services" from P.L. 94-142

2. Forms of Team Interaction

   a. Multidisciplinary

   b. Interdisciplinary

   c. Transdisciplinary (or Integrated Therapy)

3. Mislabeling of Teams

4. Attitudes of Team Members and Their Effect on Team Interactions and Services

   a. More-is-Better

   b. Return-on-Investment

   c. Only-as-Special-as-Necessary

5. Approaches to Measurement

C. Suggested Readings for the Trainer

Giangreco, M. (1986). Delivery of therapeutic services in special education programs for learners with severe handicaps. *Physical and Occupational Therapy in Pediatrics,6* (2) 5-15.

Giangreco, M., York, J., & Rainforth, B. (1989). Providing related services to learners with severe handicaps in educational settings: Pursuing the least restrictive option. *Pediatric Physical Therapy, 1* (2), 55-63.

Hutchinson, D.J. (1978). The transdisciplinary approach. In J. Curry & K. Peppe (Eds.), *Mental retardation: Nursing approaches to care* (pp. 65-74). St. Louis, MO: C.V. Mosby Co.

Lehr, D., & Haubrich, P. (1986). Legal precedents for students with severe handicaps. *Exceptional Children, 52*, 358-365.

Lyon, S., & Lyon, G. (1980). Team functioning and staff development: A role release approach to providing integrated educational services for severely handicapped students. *Journal of the Association for the Severely Handicapped, 5*, 251-263.

Osborne, A. (1984). How the courts have interpreted the related services mandate. *Exceptional Children, 51,* 249-252.

Rainforth, B., & York, J. (1987). Integrating related services in community instruction. *Journal of the Association for Persons with Severe Handicaps, 12,* 190-198.

Sternat, J., Messina, R., Nietupski, J., Lyon, S., & Brown, L. (1977). Occupational and physical therapy services for severely handicapped students: Toward a naturalized public school service delivery model. In E. Sontag, J. Smith, & N. Certo (Eds.), *Educational programming for the severely and profoundly handicapped* (pp. 263-278). Reston, VA: Council for Exceptional Children, Division of Mental Retardation.

Thousand, J., Fox, T., Reid, R., Godek, J., Williams, W., & Fox, W. (1986). Developing the collaborative teaming process. *The homecoming model: Educating students who present intensive educational challenges within regular education environments* (pp. 33-36). Burlington: Center for Developmental Disabilities, University of Vermont.

Wolfensberger, W. (1977). *The principle of normalization in human services.* Ontario, Canada: G. Allan Roeher Institute.

D. Introduction to the Module, Part II

Introduce participants to this section of the module by displaying Overhead 4. Refer to it as you review topics with participants.
Next, you may want to say: "For the next hour and a half we will cover the following:

1. *the definition and interpretation of "related services" from PL 94-142;*
2. *forms of team interactions;*
3. *the mislabeling of teams;*
4. *attitudes of team members and their effect on the team process; and*
5. *approaches to measurement."*

E. Specific Content

1. Definition and Interpretation of "Related Services" from PL 94-142

"The term 'related services' means transportation and such developmental, corrective and other supportive services (including speech pathology and audiology, psychological services, physical and occupational therapy, recreation, and medical and counseling services, except that such medical services shall be for diagnostic and evaluation purposes only) as may be required to assist a handicapped child to benefit from special education, and includes the early identification and assessment of handicapping conditions in children." PL 94-142 (1975).

The Code of Federal Regulations 34 & 300.13 & 300.14 provide more in-depth definitions than PL 94-142. [For a review of how related services have been interpreted by the courts see Osborne (1984).] The following is a summary of main points concerning related services.

a. Related services are provided to students with handicapping conditions if the recommended services are required for students to benefit from special education.

The courts have extended the interpretation of related services to include access to education, and in some cases, avoidance of unduly restrictive educational placements.

Provide an example here.

b. Variations exist from state to state regarding the provision of related services.

c. Schools generally are not required to provide services that are not judged to be essential for students to benefit from special education. The test for determination of related service delivery has been that the absence of the related service makes it unduly difficult or impossible for students to benefit from special education or participation in school activities.

Provide an example here.

d. Schools generally are not required to provide services that can be provided appropriately during nonschool hours.

Provide an example here.

e. Services (e.g., clean intermittent catheterization or tube feeding) considered to be School Health Services provided by a school nurse or other qualified person can be considered as related services.

f. Schools are not required to provide services that only can be administered by a licensed physician, except for diagnostic or evaluation purposes.

2. Forms of Team Interactions

Display Overhead 5. Next, you man want to say, "team interactions may be different, depending on goals of the team and site of service delivery We will review three forms of group interactions that might be used by a team."

Display Overhead 6 and say, "the steps listed on this overhead transparency highlight the way a multidisciplinary team functions."

a. Multidisciplinary. Historically, the early forms of professional interaction were considered multidisciplinary, merely indicating that many disciplines were involved. This approach was an improvement over previous forms of service delivery because it brought to bear the varied skills of of professionals from several disciplines. Unfortunately, the multidisciplinary approach of having professionals from many disciplines work with the same student in relative isolation from each other had serious limitations. The multidisciplinary approach did not meet the federal intent of supporting a student's ability to benefit from an educational program nor did it embody a mechanism for interactions among professionals. The multidisciplinary approach promoted highly individualistic professional behavior and seemed to perpetuate a professional-client relationship which tended to view the student as an affected part. condition, disease, or syndrome rather than a whole person.

Display Overhead 7 and say, "this overhead transparency highlights the functioning of an interdisciplinary team."

b. Interdisciplinary. In recognition of the drawbacks to multidisciplinary models, some professionals adopted interdisciplinary approaches. The interdisciplinary model, as the prefix of the name suggests, represented reciprocal interactions among or between professionals from a variety of disciplines. This occurred while attributes of the

multidisciplinary approach were retained. Professionals from various disciplines created mechanisms for communicating with each other about their activities including a system of case management. Both the multidisciplinary and interdisciplinary models typically represent "discipline-referenced" approaches in which decisions regarding assessment, planning, intervention, evaluation, and team interactions are driven by an individual disciplinary orientation (e.g., education, OT, PT, and S/LT), rather than by a shared centralized focus, such as the needs of the student within the context of her environment.

Display Overhead 8 and say, "this overhead transparency highlights the functioning of a transdisciplinary team (or integrated therapy)."

c. Transdisciplinary (or Integrated Therapy). The need for increased coordination among professionals evolved a step further with the development of the transdisciplinary model. Many professionals found it difficult to integrate the knowledge and skills from various disciplines, especially when they lacked a common goal. Additionally, it was difficult for some families to communicate with a range of different professionals. Therefore, proponents of the transdisciplinary approach added two primary characteristics to team service delivery. The first was collaboration based upon shared goals which grew out of a common framework, in essence the professionals began to view the child or youth as a complete person rather than a series of affected "parts" (Hutchinson, 1978). Secondly, program implementation included "role release," during which specialists provided training to a small number of persons outside of their respective disciplines to carry out selected services.

Role release permitted competent professionals to train and monitor specialized program implementation by others, thus allowing services to be provided in an indirect

manner. This allowed knowledge and skills from a broad range of disciplines to be delivered while minimizing the number of persons interacting with a particular child or youth. Further, the transdisciplinary team model permits infusion of therapeutic strategies into the context of functional activities. The transdisciplinary approach represented significant changes in how professionals interacted with each other. In this approach, discipline-referenced behavior was highly undesirable. Professionals had to be willing to place their disciplinary orientations in a secondary position to the agreed upon team goals in which the child or youth was viewed in the context of his or her environment. Transdisciplinary teamwork could not function properly with discipline-referenced professionals behaving in highly individualistic or competitive ways. Further, teamwork hinged upon the maturity of the members to demonstrate characteristics necessary for participation in a team: entering the relationship freely and equally, foresight, patience, politeness, speaking, arguing, and listening. The interdependencies of the transdisciplinary model emphasized the importance of collaboration.

The transdisciplinary model also promoted significantly different professional-client relationships (assuming that the clients were both the student and his or her parents). In the older multidisciplinary and interdisciplinary models, the professional delivered treatment to the student directly. Parents were relegated to passive observer roles and were rarely consulted for their input. This was based upon the notion that the professional knew what should be done (i.e., standard practice) and was being paid to deliver direct services. In the transdisciplinary model, professionals increasingly realized that while disciplinary knowledge and skills were important, selected examples of both knowledge and skill could be released to others. This also was necessary in a pragmatic sense because many of the procedures to be carried out with the student needed to be done more frequently than the specialists could manage. Limiting

knowledge and skills to the specialist was inherently a restrictive condition. In addition to releasing aspects of their roles to others, specialists increasingly began to view the consumer as integral to the team process. This represented a major departure from earlier models where consumers were the clientele to be served, but not included as partners. By including families as team members, professionals acknowledged the vested interest, special knowledge, and potential input available through families.

Display Overhead 9 as you review the following topics with participants.

The characteristics of the transdisciplinary approach had logical application to educational environments. P.L. 94-142 stated that related services, such as OT, PT, and S/LT were to be provided, "...as required in order to assist a handicapped child to benefit from special education." Sternat et al., (1977) described a variation of the transdisciplinary approach which they referred to as, "integrated therapy." Integrated therapy extended the foundations of role release and shared focus inherent in the transdisciplinary approach by incorporating disciplinary expertise to the planning process in how to achieve shared goals. For example, in the early forms of transdisciplinary planning, a speech/language therapist may have had the responsibility for planning an augmentative communication program for a student who was nonverbal. After designing the plan the specialist releases primary implementation to those who interact with the student most frequently (e.g., teacher, aides, and family members) and provides training as necessary. In an integrated therapy approach, the team would agree that communication was a priority for the student, but within the planning process, a question would be posed to all relevant disciplines (not just the speech/language therapist). "What specialized knowledge can be shared with each other to enhance the student's acquisition of communication objectives?" That is, team

members learned to share knowledge and skills from their respective disciplines to enhance acquisition of shared goals. For example, the PT may suggest a position to encourage head control that may permit the student to orient toward the augmentative communication device, and information from the itinerant vision teacher may guide placement of the device within the student's visual field.

A second characteristic of the integrated therapy model is implementation of specific therapeutic techniques in a synthesized manner within functional activities in instructional or natural contexts (Giangreco, York, & Rainforth, 1987). For example, in a study conducted by Giangreco (1986), range-of-motion exercises and manual vibration techniques which are traditionally implemented in an isolated therapy session were incorporated into an instructional lesson to facilitate a student's use of an adapted microswitch to activate a tape player. The data indicated that by incorporating the therapeutic techniques in a synthesized, rather than isolated fashion, therapeutic techniques facilitated improved performance on the switch-activation task.

NOTE: CERTAIN STUDENTS MAY REQUIRE SPECIFIC THERAPEUTIC OR OTHER SPECIALIZED SERVICES WHICH ARE NOT RELATED TO SUPPORTING THEIR EDUCATIONAL PROGRAM. IT IS SUGGESTED THAT THOSE STUDENTS RECEIVE NEEDED SERVICES THROUGH NONSCHOOL AGENCIES DURING NONSCHOOL HOURS.

3. Mislabeling of Teams

The term "team" is popular. Almost every educational or habilitative program will claim to use a "team" approach. While most of these programs are well-intentioned and possess some aspects of a team, few meet all of the criteria for a team as listed in the previous section. It is

important that families and service providers be aware of the characteristics of a team and potential mislabeling of certain school activities as teamwork. The absence of some or all team characteristics can be an indicator of program quality. Without "real" teamwork, programs may be disjointed and less effective.

4. Attitudes of Team Members and their Effect on the Team Process

The way team members interact with each other and the ideas they use to make decisions about persons with handicaps are influenced by a number of factors. Personal and professional values or attitudes can have a significant impact. Listed on the next overhead transparency are some commonly held attitudes and their potential effect on service delivery.

Display Overhead 10 as you review the following information with participants.

These attitudes are based on extensive observations of actual teams as well as 46 semi-structured interviews conducted with special educators, communication specialists, occupational therapists, physical therapists and parents who are involved with students who have severe handicapping conditions. Many professionals combine various aspects of the following value systems. Many individuals function in more than one value system exclusively. Undoubtedly other value systems or variations exist; these were the ones most prevalent during interviews and observations that were conducted.

a. <u>The "more-is-better" approach</u>. Due to professional training, or a genuine belief that services offered by one's discipline are highly valuable and necessary, there are a group of professionals and parents who pursue a "more-is-better" approach. These

individuals are likely to perceive that the vast majority of students who are identified with dual sensory and multiple impairments need extensive specialized services. These individuals tend to operate based on the assumption that if two sessions of "therapy" per week are good, three would necessarily be better, and five would be better yet. Such individuals are more likely to view the function of the specialized services in isolation from the total school or life experiences of students. Services based on this approach may actually have a negative impact on students, by separating them unnecessarily from typical school routines, activities and interactions.

"More-is-better" proponents are likely to support the provision of direct services based upon the belief that the knowledge and expertise of specialists is so advanced that the specialist's role cannot be released to others. This approach can promote unnecessary dependency upon the presence of the specialist. "More-is-better" proponents may support or practice any of the functions of related services personnel listed earlier (e.g., consultation, prevention, adaptation, remediation, and support to families). Professionals who adhere to the "more-is-better approach" generally act out of genuine concern for students and also may be highly competent in their disciplines.

b. "Return-on-investment" approach. A second approach is the "return-on-investment" model. The "return-on-investment" supporter often acts based on the belief that resources are scarce. This belief seems to be substantiated by national and regional reports which indicate a growing shortage of related services professionals and large caseloads for those already employed. Given the scarcity of human resources to meet seemingly large needs, decisions must be made about how services are to be delivered, to whom, and toward what end. The "return-on-investment" proponent may reason that expertise must be provided to those students who will benefit most from

specialized support services. "Return-on-investment" approaches can be discriminatory toward persons who have the most severe handicaps.

In locations where resources are scarce, the "return-on-investment" proponents may avoid recommending services for students with the most severe handicaps because they believe "it is a waste of time," and "they aren't going to amount to anything anyway." The dangers of this type of discrimination are obvious. Consumers may not think of the denial or termination of service as discriminatory when it is masked by the claim of professional expertise.

c. The "only-as-special-as-necessary" approach (Biklen, 1987). The "only-as-special-as-necessary" approach is rooted in the theory of normalization (Wolfensberger, 1977). In reference to the provision of related services in the schools, highly specialized therapeutic techniques and services may be viewed as stigmatizing events which serve to separate and isolate persons with handicaps. This concern was raised by members of Congress in the 1985 annual report on the implementation of P.L. 94-142. In this report, a question was asked regarding students with learning disabilities who were unnecessarily being subjected to atypical and stigmatizing school experiences when placed in "special classes." The "only-as-special-as-necessary" proponent views students within the context of there environments and recognizes the interrelationships among the varied components of school programs. The "only-as-special-as-necessary" supporter advocates minimally intrusive approaches that are most likely to facilitate inclusion in typical school activities with nonhandicapped peers. The "only-as-special-as-necessary" supporter is likely to request specialized related services only when deemed absolutely necessary; consultative supports that meet the same functions as potentially more intrusive services are usually preferred. When specialized related services are provided, the "only-as-special-as-necessary" proponent advocates

for services which are most normalized. For example, indirect services which are blended within the routine of typical daily activities would be pursued before a recommendation for the traditional, pull-out approach to the delivery of services would be made.

As students with severe handicaps increasingly become part of general attendance schools, these therapy issues become more important as quality indicators. At times, the "only-as-special-as-necessary" proponent is criticized for devaluing the expertise and autonomy of disciplines. It is understandable why this perception might evolve since the "only-as-special-as-necessary" proponent is unlikely to accept recommendations for specialized and atypical services simply because a related service specialist has made such a recommendation. This may create friction among team members. The "only-as-special-as-necessary" proponent may be viewed as a threat and may be perceived negatively as questions about the value or mode of related service delivery are raised. The potential for conflict is greatest when the "only-as-special-as-necessary" supporter encounters the "more-is-better" proponent. In some instances, the "only-as-special-as-necessary" supporter and the "return-on-investment" proponent may end up in agreement about the services to be delivered, but for quite different reasons. The "only-as-special-as-necessary" proponent values the competencies of the related service disciplines, but always views their involvement in the context of a broader scope. In this approach, skill development is viewed as a means to an end with the realization that the ends can be achieved in more than one way. The "only-as-special-as-necessary" proponent strives for the development of opportunities for maximal participation of persons with handicaps within the mainstream of community life.

While the discussion of value systems was presented in terms of professionals, parents often enter the team process with equally strong values regarding the use of special services. Parents can pursue the "more-is-better" approach, as well as professionals. Ask if any parent participants would be willing to share the value systems they bring to team meetings and inquire if their values were influenced by the information presented.

5. Approaches to Measurement

In addition to differences in value systems, another potential topic of disagreement between team members is selection of an evaluation system to measure student progress toward acquisition of a unified set of goals. Some related services professionals select evaluation measures that compare student progress with a standard derived from normal development. Other team members may recommend that each student's progress throughout the school year be measured relative only to that student's starting point for each goal. Regardless of the standard of comparison, it is recommended that team members test the effectiveness of their intervention strategies by quantitative and/or qualitative methods of data collection. Examples of quantitative measures include the duration of head erect behavior (e.g., in minutes) or the number of times a student reaches for a utensil during mealtime. An example of a qualitative method of data collection is measurement of a student's ability to activate a microswitch without excessive "overflow" of abnormal muscle tone to other parts of the body.

Data collection can be a powerful and effective tool for evaluation of progress toward achievement of identified outcomes and to assist in decision-making. It is most effective when applied to relevant and well designed intervention or treatment plans.

F. Training Activities

1. Have participants indicate what types of teams they interact with at this time (e.g., no team, multidisciplinary, interdisciplinary, or transdisciplinary).

2. Have participants express their opinions on the roles they would like to assume within the team.

3. Have the participants select two priority educational activities that are relevant to a specific student (e.g., making purchases, communicating basic wants and needs, or expanding leisure skill repertoire) and then brainstorm potential input from the various disciplines in an integrated therapy model by asking the question, "What specialized knowledge or skills can be implemented by the classroom staff in the context of the lesson that will assist the student in attaining the objectives?"

G. Scenario/Vignette

Julie, age 15, attends Hamilton High School along with 465 other students. In addition to a moderate hearing and vision impairment, she experiences increased muscle tone due to cerebral palsy. As indicated in her Individualized Education Program (IEP), Julie receives related services from a physical therapist, a speech and language therapist, and itinerant vision teacher.

Each professional assesses Julie individually and plans a program based on those data. The specialists conduct their intervention plans in therapy rooms. For example, the physical therapist conducts range-of-motion exercises on Julie's upper and lower extremities three times

a week for 30 minutes. The itinerant vision teacher works with the speech/language therapist, as well as Julie on using low vision aids to better view her communication board.

Mr. Fiorini, the Special Education Director for the school district, indicated that a team approach is utilized at Hamilton High School. He stated that each specialist writes goals and then shares them with the other team members at the annual IEP meeting.

After reading this scenario/vignette, have participants answer the following questions:

1. What type of service delivery model is being implemented?

2. What are some of the drawbacks to this approach?

3. What aspects of Julie's current service delivery system require modification to exemplify a transdisciplinary model with integrated therapy?

V. Content - Part III: Characteristics and Benefits of a Transdisciplinary Approach

A. Module Delivery Organization

1. Lecture Number: 3

2. Amount of Time: Ninety minutes

3. Specific Outcome Competencies

Participants will receive information regarding benefits of the transdisciplinary team approach to education and habilitation for;

a. students with handicapping conditions,

b. families of students with handicapping conditions,

c. professional staff members,

d. school systems, and

e. the community.

B. Content Overview Outline

1. Characteristics of a Team

2. Benefits of the Transdisciplinary Approach for Students

3. Benefits of the Transdisciplinary Approach for Families

4. Benefits of the Transdisciplinary Approach for Professionals

5. Benefits of the Transdisciplinary Approach for School Systems and the Community

C. Suggested Readings for the Trainer

Albano, M., Cox, B., York, J., & York, R. (1981). Educational teams for students with severe and multiple handicaps. In R. York, W. Schofield, D. Donder, D. Ryndak, & B. Reguly (Eds.), *Organizing and implementing services for students with severe and multiple handicaps* (pp. 23-34). Springfield: Illinois State Board of Education.

Giangreco, M. (1986). Effects of integrated therapy: A pilot study. *Journal of the Association for Persons with Severe Handicaps, 11*, 205-208.

Sears, C. (1981). The transdisciplinary approach: A process of compliance with Public Law 94-142. *Journal of the Association for the Severely Handicapped, 6*, 22-29.

York, J. (1985). A transdisciplinary model of service delivery for educational teams who serve students with severe and multiple handicaps: Implications for developmental therapists. In *Innovative strategies for lifelong planning conference monograph.* (Grant No. 025AH40013).

D. Introduction to the Module, Part III

Introduce participants to this portion of the module by displaying Overhead 11. Refer to it as you review topics with participants. Next, you may want to say: "For the next hour and a-half, we will focus on the benefits of the transdisciplinary service model including;

1. *characteristics of a team,*
2. *benefits for students,*
3. *benefits for families,*
4. *benefits for professionals, and*
5. *benefits for schools and communities."*

E. Specific Content

Ask participants to review the definition of "transdisciplinary" as you present the following information.

1. Characteristics of a Team

   a. A team has two or more members who possess various skills that may serve different functions, thereby allowing the body of theory and skills of all team members to be expanded.

   b. Team members develop a common framework and purposefully pursue a unified set of goals.

Provide an example here.

   c. Team members engage in problem-solving and collaborative activities to attain the unified set of goals.

   d. Team resources are shared and allocated to attain the goals.

e. Interactions among team members are designed to complement each other and increase effectiveness.

f. The relative effectiveness of the team is judged by how well the group works together to achieve the unified set of goals.

From personal experiences, have participants share characteristics of groups that either had or did not have "team" characteristics as noted in the above information. For example, related to groups that worked effectively as teams, identify characteristics that contributed to their effectiveness.

2. Benefits of the Transdisciplinary Approach for Students

There are three interrelated benefits of the transdisciplinary approach for students served. The first and most important benefit is that this model results in synthesized delivery of therapeutic techniques throughout the student's daily instructional routine. This pattern of service delivery differs from more traditional models in which a series of related services professionals conduct therapeutic techniques with a student separate from ongoing activities. The more consistent use of specialized techniques whenever and wherever they may improve function may enhance the therapeutic effect obtained from the various techniques.

The second benefit of this approach is highly related to the first in that specialized techniques are implemented on a longitudinal (i.e., long term) rather than episodic (i.e., occasional) basis. The use of specialized techniques by the primary service provider (e.g., typically the teacher) all day, every day, may prove to be more effective than the same specialized technique implemented two or three times per week in isolation or a nonfunctional context.

The third and final benefit of the transdisciplinary approach for students is a reduction in the number of adults who deliver direct services. Most therapeutic services are conducted by one (sometimes two or three) primary service providers. This arrangement lessens the possibility of inconsistent instruction or behavior management across multiple team members.

3. Benefits of the Transdisciplinary Approach for Families

There are two primary benefits of the transdisciplinary model for families. The first is a reduction in the number of professionals with whom the family must interact. A primary service provider is selected for each student. This professional (sometimes called an "educational synthesizer" or program manager) coordinates the contributions of all team members overall educational programs of students. Also, the program manager often serves as the primary link to the family.

The program manager is in a unique position to interpret each student's set of unified goals for parents and other family members. Other team members are available, however, at the request of family members.

The second benefit for families is the likelihood that they too will have the opportunity to learn specialized knowledge and skills from a variety of disciplines. Family members may incorporate these new skills into home and community activities as appropriate.

4. Benefits of the Transdisciplinary Approach for Professionals

The primary benefit of the transdisciplinary approach for professionals is the opportunity to be ongoing "learners" through their interactions with families and professionals from other

disciplines. Team members may learn disciplinary knowledge and skills from one another and may also enhance their interpersonal communication skills though the dynamics of the team process.

5. Benefits of the Transdisciplinary Approach for School Systems and Communities

Finally, the transdisciplinary model may also be of benefit to school systems and the community. This model is inherently more flexible than direct service models thereby reducing school or class scheduling conflicts. Additionally, the negative effects of staff turnover or vacancies may be minimized because the specialized knowledge and skills of each team member has been shared.

F. Training Activities

1. Have a teacher, parent, related service professional, or student who has positive experiences with transdisciplinary teams speak to the group.

2. Have participants share personal experiences indicating how transdisciplinary team experiences benefited their student, child, or themselves (i.e., if any participants have been involved in transdisciplinary service delivery).

3. Have participants discuss ways to approach school officials about entertaining the idea of developing more transdisciplinary approaches in the school.

G. Scenario/Vignette

Brad is 14-years-old. He has attended a special education class at Grover Cleveland Junior High School for the past two and one-half years. At present, there are five other students in his class. Brad has a severe vision impairment, a moderate hearing impairment, a seizure disorder, and cerebral palsy. Brad receives services from an occupational therapist, a mobility instructor, a physical therapist, and a speech/language therapist. These four specialists meet with the special education teacher and Brad's mother on a regular basis to discuss Brad's progress and to develop new goals when appropriate.

All of the team members share assessment data and plan a program that can be implemented in the classroom or in the context of a natural routine (e.g., a community-based instructional site). Team members share their expertise and train others to carry out programs where appropriate. This results in a more holistic program for Brad.

For example, the physical therapist recommended that range of motion exercises be conducted on Brad's upper extremities prior to activities that required Brad to use his hands. She further recommended that he bear weight in a standing position on a daily basis in order to prevent hip dislocation. This could be accomplished by having Brad use a prone stander during two, 30-minute instructional periods each day. The occupational therapist developed an adapted switchplate for Brad since he did not have isolated finger use. This could be attached to various small appliances (e.g., tape recorders, blenders, and a record player) so that Brad could activate a piece of equipment by using a downward movement of his hand. The mobility specialist felt that Brad needed to learn to orient his upper trunk and head in the direction of his wheelchair, the commode, and prone board. This objective would focus initially on utilizing his residual vision in the functional context of transitions and transfers. Brad's teacher and mother were very much in favor of his interacting with nonhandicapped peers since they were well aware of the benefits from such interactions. Their goal was to have Brad interact on a daily basis with a few junior high students within structured activities. Two components suggested by the speech/language therapist were to have Brad to greet individuals by orienting to them and smiling, and to follow simple verbal commands within the context of a variety of social and instructional situations.

The team decided that all of these particular goals could be worked on within a forty-five minute period in the afternoon. A peer interaction program was established with students from the junior high study hall. Several students who were free during that time period were scheduled to interact with Brad and his classmates. Prior to the program, the classroom teacher carried out range-of-motion exercises on Brad's upper extremities to produce relaxation. He then was placed in a prone stander for the remainder of the class period with his peers. Upon arrival and greeting by his junior high school friend, Brad was taught to look in the direction of his friend and smile in order to greet him. Then they engaged in an activity together in which Brad used the adapted switchplate. These activities consisted of Brad using a tactile scan to locate the

switchplate followed by activation of the tape recorder. While conducting these activities Brad was taught to respond to a simple command from his friend, "It's your turn. Hit the switch." This verbal command was accompanied by a touch cue on Brad's wrist. The classroom teacher wrote the program and supervised implementation of the program by his peer.

After reading the above scenario/vignette, have participants answer the following questions:

1. What type of service delivery model was being employed at Grover Cleveland?

2. What were some of the benefits of this approach?

VI. References

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VII. Sources for Additional Information

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100 North First Street
Springfield, IL 62777
Phone number: (217) 782-6601
Cost of book: Available for loan

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Baltimore, MD 21285-0624
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1920 Association Drive, Department 9945B
Reston, VA 22091
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499 C Waterman Building
University of Vermont
Burlington, VT 05405
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Wolfensberger, W. (1977). *The principle of normalization in human services.* Ontario, Canada: G. Allan Roeher Institute.

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The G. Allan Roeher Institute
Kinsman Building, York University Campus
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Downsview, Ontario M3J1P3
Phone number: (416) 661-9611
Cost of book: $12.50

VIII. Evaluation Measures

A. Pre/Post Evaluation

Related Services and the Transdisciplinary Approach:
Parent and Service Provider Training Module

Giangreco & Eichinger

Name _____ Pre_____

Date _____ Post _____

Points Possible: 20

Length of Time Allowed: 30 minutes

1. Briefly state three reasons why the role of family members is important to service delivery for students with dual sensory and multiple handicaps. (3 pts.)

2. Select two of the following six team members and state three roles performed by each of these team members: (6 pts.)
   a. Teacher
   b. Occupational Therapist
   c. Physical Therapist
   d. Parent
   e. Orientation and Mobility Instructor
   f. Speech/Language Therapist

3. What is meant by "Related Services" as specified in PL 94-142? (2 pts.)

4. Provide a brief description of what is meant by two of the following three types of related service delivery approaches: (3 pts.)
   a. Multidisciplinary
   b. Interdisciplinar
   c. Transdisciplinary (or Integrated Therapy)

5. State three benefits of the transdisciplinary (or integrated therapy) approach for students. (3 pts.)

6. State three benefits of the transdisciplinary (or integrated therapy) approach for families. (3 pts.)

B. Answer Key

1.

Any three of the following reasons should be considered correct.

a. Families know certain things about their children or youth better than anyone else.
b. Families have the greatest vested interest in seeing their children or youth learn.
c. Families are likely to include the only adults involved with the educational or therapeutic programs of their children or youth throughout their entire school careers.
d. Families have access to information about capabilities of their children or youth in home and community settings to which others have no access.
e. Families have the ability to influence the quality of educational services provided in their community.
f. Families must live with the outcomes of decisions made by educational or therapeutic teams 24 hours a day, 365 days a year.

2.

Any three roles of two team members listed below should be considered correct.

a. Teacher:
   i. develops and implements educational programs;
   ii. synthesizes information from all team members;
   iii. organizes the classroom environment;
   iv. determines types of instructional arrangements and groupings;
   v. provides systematic instruction;
   vi. develops opportunities for interactions with nonhandicapped peers; and/or
   vii. trains and supervises paraprofessional staff.

b. Occupational therapist:
   i. evaluates and intervenes with problems relating to functional performance of individuals with handicaps;
   ii. develops proper seating arrangements;
   iii. develops positioning and handling strategies;
   iv. designs adaptive equipment;
   v. designs handsplints and other orthotic devices;
   vi. teaches self-care skills;
   vii. teaches daily living skills;
   viii. develops feeding programs
   ix. develops handwriting activities; and/or
   x. works on various fine motor activities.

c. Physical therapist:
   i. develops seating arrangements;
   ii. develops positioning and handling strategies;
   iii. provides gait training;
   iv. provides mobility instruction including wheelchair or walker use;
   v. selects appropriate adaptive equipment;
   vi. promotes movement facilitation;
   vii. maintains joint flexibility by conducting range of motion exercises;
   vii. develops gross motor programming;
   ix. promotes cardiovascular and cardiomuscular fitness; and/or
   x. provides skin care to avoid skin breakdown.

d. Parent:
   i. specifies educational and functional priorities;
   ii. reports child or youth's skill levels in home and other nonschool environments;

iii. identifies student's preferences;
iv. highlights child or youth's strengths;
v. articulates the family's aspirations and dreams for the student in the future;
vi. provides historical information that would affect planning; and/or
vii. offers additional input to school personnel.

e. Orientation and mobility instructor:
i. teaches protective techniques;
ii. teaches search techniques;
iii. teaches orientation to the physical environment safely;
iv. teaches concept development; and/or
v. recommends travel aids and equipment adaptations.

f. Speech/language therapist:
i. determines child or youth's present level of functioning relative to communication skills;
ii. makes recommendations regarding communication program for the student; and/or
iii. recommends feeding programs and other activities related to oral motor functions.

3.

Any definition that contains the following key points should be considered correct (key points are underlined).

"The term 'related services' means transportation and such developmental, corrective, and other supportive services (including speech pathology and audiology, psychological services, physical and occupational therapy, recreation, and medical and counseling services, except that such medical services shall be for diagnostic and evaluation purposes only) as may be required to assist a child or youth with handicaps to benefit from special education, and includes the early identification and assessment of handicapping conditions in children and youth."

4.

Any two of the following should be considered correct.

a. A multidisciplinary approach is based on the medical model. Under this model, professionals from each discipline assess and provide service to children and youth in isolation.

b. An interdisciplinary model is characterized by communication among the various professionals regarding a particular student. However, program implementation remains isolated within this model; that is, each professional provides intervention specific to his discipline.

c. The transdisciplinary model is characterized by collaboration among the various team members to develop mutual goals for the student. Inherent in this approach is the fact that the child or youth is viewed as a complete person. Thus, this approach is more holistic. In addition, there is role release in this model. Specialists provide training to other persons who are not members of that discipline to implement the specialized services; therefore, services are provided in an indirect rather than a direct manner. Parents are viewed as equal team members in a transdisciplinary approach.

The integrated therapy approach is a variation of the transdisciplinary approach which extends the role release and shared focus foundation of the transdisciplinary model by suggesting that the team planning apply disciplinary expertise to the shared goals. Furthermore, the therapeutic techniques are implemented in a synthesized manner within functional activities in instructional or natural contexts (e.g., grocery stores, work settings, or functional skill routines in the classroom).

5.

Any three of the following benefits should be considered correct.

a. Provides specialized input in a synthesized manner.
b. Supports the student's educational program.
c. Minimizes the stigma of "pull out" therapy or help.
d. Is longitudinal in nature.
e. Limits to three or less the number of professionals with whom the student must interact.
f. Creates more time for consultation which previously was spent in direct therapy.
g. If age-appropriate, includes the student in decision-making.

6.

Any three of the following should be considered correct.

a. Includes family members as part of the team.
b. Provides a support mechanism.
c. Limits the number of professionals with whom the family must interact on a regular basis.
d. Encourages decentralization (bringing the services to the students) which can result in home district placement (rather than a regional center) thus enhancing family access to the school program.
e. Encourages a natural environmental approach which includes analysis of home and community needs which families face.
f. Decreases excessive dependency of families on the presence of a specialist, since the family has learned how to incorporate specialized techniques within routine home and community activities.

C. Participant Evaluation of Training

A Series of Training Modules on Educating Children and Youth with Dual Sensory and Multiple Impairments

Participant Evaluation of Training

Related Services and the Transdisciplinary Approach:
Parent and Service Provider Training Module

Trainer: _____ Date of Training: _____

Training Site: _____

Please read each of the following statements carefully and rate each statement using the key below:

1 = Strongly Disagree	(SD)	4 = Agree	(A)
2 = Disagree	(D)	5 = Strongly Agree	(SA)
3 = Undecided	(U)		

	(SD)	(D)	(U)	(A)	(SA)
1. Overall, the content of this training met my expectations.	1	2	3	4	5
2. I learned useful information about roles and functions of various team members when working with students who have dual sensory and multiple impairments as a result of this training.	1	2	3	4	5
3. I learned useful information about implications of the "Related Services" section of Public Law 94-142 as a result of this training.	1	2	3	4	5
4. I learned useful information about major types of service delivery models used in schools and the benefits of a transdisciplinary approach as a result of this training.	1	2	3	4	5

	(SD)	(D)	(U)	(A)	(SA)
5. The training provided specific information that I can apply.	1	2	3	4	5
6. The training content was applicable to my needs as a parent or service provider.	1	2	3	4	5
7. Materials available from this training were relevant and beneficial.	1	2	3	4	5
8. The trainer demonstrated competence in the areas of related services and service delivery models.	1	2	3	4	5
9. The trainer communicated clearly and effectively.	1	2	3	4	5
10. The trainer was responsive to the questions and needs of participants.	1	2	3	4	5
11. The trainer encouraged active involvement by participants and was able to facilitate group discussion.	1	2	3	4	5
12. The trainer was able to effectively present information through utilization of a multisensory approach (i.e., lecture, activities, overheads, handouts, readings, or videos.)	1	2	3	4	5

13. After participating in these training activities, what ways do you plan to implement what you learned from these sessions?

_____

_____

_____

_____

14. What were the strengths of this training?

15. What follow-up needs can you identify for yourself?

16. In what ways could these training activities have been improved?

Appendix A

Overhead Transparencies

CONTENT OUTLINE

1. Families as Consumers of Professional Services

2. Functions of Educators and Related Service Professionals

3. Roles and Responsibilities of Team Members

FUNCTIONS OF TEAM MEMBERS

a. Development of adaptations.

b. Facilitation of relevant academic and functional skills.

c. Reciprocal consultation with colleagues.

d. Removal or modification of barriers to participation.

e. Prevention of regression or pain.

f. Support and resource to families.

g. Remediation or restoration of identified deficits.

h. Promotion of sequenced developmental skills.

i. Assessment and subsequent educational program or therapeutic development, implementation, and evaluation.

j. Consensus decision-making.

COMMAN TEAM MEMBERS

1. Occupational Therapist (OT)
2. Orientation and Mobility Instructor (O & M)
3. Parent
4. Physical Therapist (PT)
5. Speech/Language Therapist
6. Teacher

CONTENT OUTLINE

1. The Definition and Interpretation of "Related Services" from PL 94-142

2. Forms of Team Interactions

3. The Mislabeling of Teams

4. Attitudes of Team Members

5. Approaches to Measurement

THREE FORMS OF GROUP INTERACTIONS

a. Multidisciplinary

b. Interdisciplinary

c. Transdisciplinary (or Integrated Therapy)

MULTIDISCIPLINARY

- Individualized assessments conducted by each member.
- Meet as a group to share information.
- Each member remains independent.
- Information exchanged is based on disciplinary biases.

INTERDISCIPLINARY

- Case manager assigned to coordinate program
- Encourages reciprocal communication.
- May result in conflicting recommendations by members.

TRANSDISCIPLINARY (OR INTEGRATED THERAPY)

- Collaboration is based upon shared goals.
- Systematic transfer and sharing of information among members (i.e., "role release").
- Minimizes the number of people interacting with a particular student.
- Student is viewed in the context of the environment.
- Consumers are full members of the team.

INTEGRATED THERAPY (A VARIATION OF THE TRANSDISCIPLINARY MODEL)

- Incorporates educational and therapeutic methods to cooperatively plan for common needs and goals.

- Implementation is synthesized and occurs within functional activities in natural environments.

- Reported as a best practice for students with dual sensory and multiple impairments.

ATTITUDES OF TEAM MEMBERS

a. "More-is-Better"

b. "Return-on-Investment"

c. "Only-as-Special-as-Necessary"

(Overhead 10)

CONTENT OUTLINE

1. Characteristics of a Team

2. Benefits of the Transdisciplinary Approach for Students

3. Benefits of the Transdisciplinary Approach for Families

4. Benefits of the Transdisciplinary approach for Professionals

5. Benefits of the Transdisciplinary Approach for School Systems and Communities

Appendix B

Handouts

RESOURCES FOR INFORMATION REGARDING PROFESSIONAL AND SUPPORT ORGANIZATIONS

For more information regarding occupational therapy contact:

American Occupational Therapy Association (AOTA)
1838 Piccard Drive
Rockville, MD 20850
Phone: (301) 948-9626

For more information regarding visual impairments contact:

American Foundation for the Blind, Inc.
15 West 16th Street
New York, NY 10011
Phone: (312) 620-2000

National Association for the Visually Handicapped
305 E. 24th Street
New York, NY 10010
Phone: (212) 889-3141

Association for Education & Rehabilitation of the Blind & Visually Impaired
Division for Orientation & Mobility
206 North Washington Street
Alexandria, VA 22314
Phone: (703) 548-1884

For information about families of persons with disabilities contact:

The Sibling Information Network
Connecticut's University Affiliated Facility
991 Main Street
East Hartford, CT 06108
Phone: (203) 486-3783

National Information Center for Handicapped Children & Youth
P.O. Box 1492
Washington, DC 20013
Phone: (703) 893-6061

Federation for Children with Special Needs
312 Stuart Street, 2nd Floor
Boston, MA 02116
Phone: 482-2915

A magazine devoted to practical information for families is:

The Exceptional Parent
605 Commonwealth Avenue
Boston, MA 02115
Phone: (617) 536-8961

For more information regarding physical therapy contact:

American Physical Therapy Association (APTA)
1111 North Fairfax Street
Alexandria, VA 22314
Phone: (703) 684-2782

For more information regarding speech/language therapy contact:

American Speech, Language, and Hearing Association (ASHA)
10801 Rockville Pike
Rockville, MD 20852
Phone: (301) 897-5700 or (800) 636-6868

Alexander Graham Bell Association for the Deaf, Inc.
3417 Volta Place, NW
Washington, DC 20007
Phone: (202) 337-5220

National Association for the Deaf
2025 Eye Street, NW
Suite 321
Washington, DC 20006
Phone: (301) 587-1788

For information regarding education contact:

Council for Exceptional Children (CEC) or
ERIC Clearinghouse on Handicapped & Gifted Children
1920 Association Drive
Reston, VA 22091-1589
Phone: (703) 620-3660

National Clearing House of Rehabilitation Training Materials
Oklahoma State University
Stillwater, OK 74078
Phone: (405) 744-7650

The Association for Persons with Severe Handicaps
(TASH)
7010 Roosevelt Way N.E.
Seattle, WA 98115
Phone: (206) 523-8446