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Grooms, Richard A.

**A COMPETENCY-BASED IN-SERVICE TRAINING PROGRAM MODEL FOR
IMPLEMENTING PUBLIC LAW 94-142 IN PHYSICAL EDUCATION**

Middle Tennessee State University

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Richard A. Grooms

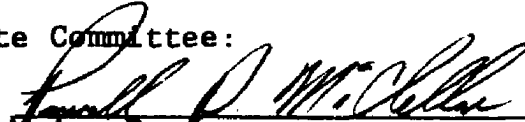
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for the degree Doctor of Arts

May 1984

A COMPETENCY-BASED IN-SERVICE TRAINING PROGRAM
MODEL FOR IMPLEMENTING PUBLIC LAW 94-142
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ABSTRACT

A COMPETENCY-BASED IN-SERVICE TRAINING PROGRAM
MODEL FOR IMPLEMENTING PUBLIC LAW 94-142
IN PHYSICAL EDUCATION

Richard A. Grooms

The purpose of this study was to develop an in-service training program designed to accommodate training requirements and mandates of Public Law 94-142 as they relate to physical education, and to develop an instructional delivery design for a special physical education program utilizing the competency-based approach.

Relevant literature on the topic was examined, and a survey was made of the 196 physical educators in the Metro Nashville School System to determine their preparedness to teach the handicapped. Of the 196 questionnaires distributed, 102 were returned. The results of this survey substantiated the findings of the related literature that there is a desire and need for in-service training in physical education programming for the handicapped.

Responses for each item in the questionnaire were grouped and tabulated, and the percentages of each type of response for each item were obtained. Chi-square computations were also used to determine the significance of each type of response. Both Chi-square computations and

Richard A. Grooms

percentages were used in analyzing the data to obtain information on the form and content of the in-service training course to be designed.

As a result of the analysis of the survey, the in-service training program took the form of a four-hour, graduate level course which combined both theory and practical experience in two distinct components. This course is a competency-based, modularized course of study based on the acquisition of en route competencies for each module, resulting in the acquisition of terminal competencies by the end of the course. The first component of the course consists of eight weeks of independent work and structured classroom work on identified tasks contained in seven modules. The second component is a six-week, sixty-hour practicum. A student manual with an addendum for instructors has been prepared as a guide throughout the course.

Since this in-service training program was designed to meet the needs of teachers in the Metro Nashville School System, recommendations for its implementation were made. Additional recommendations were made for further study of the problem and creation of other in-service training programs.

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CHAPTER ONE

Introduction

In November of 1975, President Ford signed into law P.L. 94-142, The Education for All Handicapped Children Act. This law mandated that handicapped children should have educational experiences comparable to those of non-handicapped children and, when at all possible, in the same classroom. This mandate posed critical problems for the regular classroom teacher who, in most instances, did not have the skills needed for mainstreaming handicapped students. In anticipation of this problem, Section 613 of the law stipulated that:

Development and implementation of a comprehensive system of personnel development which shall include the in-service training of general and special educational instructional and support personnel, detailed procedures to assure that all personnel necessary to carry out the purpose of this Act are appropriately and adequately prepared for acquiring and disseminating to teachers and administrators of programs for children significant information derived from educational research, demonstration, and similar projects.¹

However, in 1976, although there were an estimated 7,800,000 handicapped persons between birth and the age of 21, there were only 25,000 personnel who were trained to

¹Jasper Harvey, "Future Trends in Personnel Preparation," Exceptional Children, 43 (November 1976), 148.

meet their educational needs. The personnel who were available represented only half of the trained personnel needed to provide educational instruction to successfully implement the law.² Since 1976 progress has been made in providing in-service personnel development programs, and nowhere is this need greater than in the field of physical education programming for the handicapped. For identified in P.L. 94-142 are specific provisions for physical education, making the law have particular significance for physical educators.

Horgan and Poretta identify four such provisions:

1. Each handicapped child must be afforded the opportunity to participate in a regular physical education program available to non-handicapped children unless,
 - a. the child is enrolled full-time in a separate facility or,
 - b. the child needs specially designed physical education as prescribed in the child's individualized educational program (I.E.P.).
2. If a specially designed physical education program is prescribed, the public agency must provide services directly or make arrangements for it to be provided through other public or private programs.
3. Physical education is specifically mandated by the law (P.L. 94-142) as a direct service rather than a related service.
4. Physical education includes the terms special physical education, adapted physical education and motor development. It involves the development of physical and motor fitness,

²Ibid., pp. 148-149.

fundamental motor skills and patterns, body mechanics, individual and group games and sports, as well as intramural and lifetime sports, dance and movement education, and the use of movement as a method for the acquisition of affective, social, emotional and cognitive skills.³

Under these provisions, training is imperative for the physical educator, training in assessment techniques, training in curriculum design, and modification, training in the design of special programs, and training in the practical implementation of these programs in order that the physical educator might properly implement the law and provide quality education for the handicapped. This is also imperative since the physical educator must

1. help identify and aid in the placement of handicapped children in appropriate physical education program.
2. assist as a member of the evaluation team to prepare the Individualized Education Program (IEP) as well as establishing both the long-range goals and short-term objectives for meeting the child's physical education needs.
3. insist that appropriate specialized supportive services be provided to guarantee "appropriate" physical education for the handicapped child.
4. advise parents of handicapped children of their rights under the law and the obligation of the local educational agency to finance the programs to guarantee those rights.⁴

³James S. Horgan and David L. Porretta, "Meeting the Needs of the Handicapped Through Comprehensive Personnel Preparation in Physical Education," Physical Education In-service Staff Development Curriculum Resources Guide USOE (HEW) Grant #G00-780-1569, Temple University, Philadelphia, Pennsylvania (1981), 3.

⁴Ibid., p. 4.

The passage of P.L. 94-142 has challenged the regular physical educator. To meet that challenge the teacher must in many instances acquire new skills and attitudes which will allow him to provide effective, quality instructions to the handicapped student; to act as a resource and support person assisting in assessment, family counseling, and programming; and to properly implement the law. A comprehensive in-service training program in physical education programming for the handicapped is needed to assist the teacher in the development of these skills, one which will take into account both the trainee's existing strengths and competencies as well as his weaknesses. An effective model for such a program would be one which was competency-based, have comprehensive theoretical and practicum experiences, and have carefully designed pre-assessment and post assessment procedures which would assure the acquisition of skills to provide quality education for the handicapped and proper implementation of the law.

Statement of the Problem

The purpose of this study has been to develop an in-service training program designed to accommodate training requirements and mandates of Public Law 94-142 as they relate to physical education, and to develop an instructional delivery design for a special physical education program utilizing the competency-based approach.

Significance of the Study

Within Public Law 94-142, physical education is defined as an integral part of special education. Recognizing the impact of Public Law 94-142, the Bureau of Education for the Handicapped has identified the training of regular educators, especially physical educators as a priority. The Department of Health, Physical Education and Recreation at Tennessee State University has primarily focused on pre-service education in special physical education. However, a trend is underway to accommodate graduate physical educators who wish to acquire the necessary competencies to better serve exceptional children as mandated by Public Law 94-142.

The school district in the metropolitan Nashville area concurs with the need for a less restrictive environment in the education of handicapped children and is committed to achieving that end. Yet many physical education teachers have graduated without course work, field experiences, or competencies in the area of education for the handicapped. They are poorly equipped to provide the services required by Public Law 94-142. There is an unmet need to provide in-service experiences in motor skill development for those teaching physical education. Although the local school district of Davidson County recognizes a need for in-service training for physical education teachers in the area of special physical education, current local budgets are unable to provide this very needed service. Analysis of manpower

needs indicates approximately 190 physical education teachers in the Metropolitan Public School System in need of in-service training in physical education for the handicapped child. There are at present no plans underway to provide this service.

In Davidson County there are 9,729 handicapped children ages 3 to 21 who are receiving an education in the public school system. There are at present five physical education teachers employed in five special schools for the handicapped in the Metropolitan Davidson County Public School System. The personnel development training program proposed in this study would alleviate this shortage of specially trained physical educators, expanding the professional competencies of existing staff to better deliver physical education services in compliance with Public Law 94-142. The program has been designed to upgrade the skills of district personnel so they will acquire the ability to assess and evaluate the physical development and motor behavior status of individuals with a variety of handicapping conditions and to develop, implement, and formatively evaluate diversified programs of physical education for individuals and groups within a mainstreamed setting.

This proposed training program has been designed to assist the Bureau of Education for the Handicapped in the fulfillment of its major objectives:

1. To assure that every handicapped child is receiving an appropriately designed education.
2. To assist the state in providing appropriate educational services to the handicapped.
3. To assure that all handicapped children served in the schools have a teacher trained or other resource person competent in the skills required to aid the child in reaching his/her full potential.

In addition, this study:

1. Focuses on regular physical education personnel currently employed by local education agencies.
2. Provides for involvement with and cooperation with identified local education agencies.
3. Provides competencies, and learning activities specified.
4. Emphasizes training activities compatible with Public Law 94-142, including education within the least restrictive environment, construction of individualized educational plan, implementation of appropriate individualized program for each handicapped child, and evaluation of progress.

5. Provides a cadre of trainers to be recruited and trained who can assume leadership roles in their school systems.

In recent years, special physical education classes have been created to meet the needs of handicapped children in the schools. Federal law now requires that these children be integrated into regular classes whenever and wherever possible. This is a threatening concept to teachers who have not had the special training to feel comfortable when faced with this situation. The present burden of large classes makes many teachers reluctant to attempt to include these special students in their classes. However, there is no longer an option of placing these children in special classes. The law is quite clear that these students are to be placed in "the least restrictive environment."

It is now necessary for the regular physical education teacher to develop the skills and competencies with which to instruct these children while continuing to meet the needs of all children within the instructional setting. Teacher training programs must be provided at the pre-service level, and in-service training must be provided for those already teaching. With professional competencies, not only will the 9,729 handicapped students in the Nashville schools be provided with greater educational opportunities, but the lives of all school children will be enhanced by association

with these unique individuals who will now be members of classes and social groups. In other school settings where in-service training has resulted in a mainstreamed population, results have indicated that the techniques used to teach handicapped individuals within regular classes are good teaching techniques for all. Peer teaching, contracts, student slides, visual aids, the multisensory-approach, positive reinforcement, individualized instruction within the group, movement exploration and problem solving are strategies which have been developed as methods of teaching integrated class groupings. These techniques are worthy of being incorporated into the repertoire of all experienced teachers.

Limitations of the Study

This study has been comprehensive in nature and has resulted in a course design and an instructor/student manual. The study has been limited to the development of an in-service training program for elementary and secondary-level physical education teachers to enable them to effectively meet the mandates of P.L. 94-142 and to provide quality instruction for handicapped students in the least restrictive environment.

Definitions of Terms

For the purpose of this study, the following terms and definitions have been used:

Adapted Physical Education refers to the modification of traditional physical education activities to enable individuals with handicaps to participate with safety, success and satisfaction.

Competency refers to an identified skill needed to successfully accomplish a teaching task.

Competency-based Education refers to a process which places emphasis on student acquisition of skills required for a task designated as necessary for professional functioning.

Corrective Physical Education refers to the habilitation or rehabilitation of functional postural and body mechanics deficiencies.

Developmental Physical Education refers to a progressive physical fitness and/or gross motor training program to increase an individual's physical ability to a level at or near to that of his/her peers.

Exceptional Children refers to boys or girls who significantly deviate from others in physical, mental, emotional, and/or social development so that they need a modification of the regular program to develop their maximum potential.

Handicapped Children refers to children evaluated as being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, multihandicapped, or as having specific learning disabilities, who, because of those impairments, need special education and related services (Federal Register, 1977, 121a. 5(a)).

Individualized Education Program refers to a written statement for a handicapped child who is developed and implemented in accordance with provisions of P.L. 94-142 (Federal Register, 1977, 121a. 340).

In-service Training refers to the whole range of activities by which educators can extend their personal education, develop their professional competence and improve their understanding of educational principles and techniques.

Least Restrictive Environment refers to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped (Federal Register, 1977, 121a. 550(b) (1)).

Local Educational Agency (LEA) refers to a public board of education or other public authority legally constituted within a state for either administrative control or direction of, or to perform a service function for public elementary or secondary schools in a city, county, township,

school district, or other political subdivision of a state, or such combination of school districts or counties as are recognized in a state as an administrative agency for its public elementary or secondary schools. Such term also includes any other public institution or agency having administrative control and direction of a public elementary or secondary school (Federal Register, 1977, 121a. 8(a)).

Mainstreaming refers to the process of integrating handicapped students into the classroom with non-handicapped students and/or providing them with instruction in the least restrictive environment in which their educational and related needs can be satisfactorily provided.

Physical Education refers to the development of physical and motor fitness, fundamental motor skills and patterns, skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports). The term also includes special physical education, adapted physical education, and motor development (Federal Register, 1977, 121a. 14(b) (2)).

Related Services refers to transportation and such developmental, corrective, and other supportive services as are required to assist a handicapped child to benefit from special education, and includes speech pathology and audiology, psychological services, physical and occupational therapy, recreation, early identification and assessment of disabilities in children, counseling services,

and medical services for diagnostic or evaluation purposes; also school health services, social work services in schools, and parent counseling and training (Federal Register, 1977, 121a. 13(a)).

Special Education refers to specially designed instruction, at no cost to the parent, to meet the unique needs of a handicapped child, including classroom instruction and instruction in hospitals and institutions (Federal Register, 1977, 121a. 14(a) (1)).

Special Physical Education refers to a specialty area within the field of physical education which has developed to provide programs for individuals with special needs. Three major programs within special physical education are adapted, corrective, and developmental.

CHAPTER TWO

A Review of the Literature

The passage of Public Law 94-142 has made mainstreaming of handicapped students a requirement. This law provides specific guidelines for the teaching of physical education for the handicapped. Consequently, a specific need has arisen for both pre-service and in-service training programs which would prepare personnel who are competently trained to implement this law and provide quality education for the handicapped in the least restrictive environment. The purpose of this study, therefore, has been to develop a competency-based in-service training program based on needs assessed through an examination of relevant studies and from a survey of prospective trainees.

This chapter is devoted to an examination of literature pertinent to this study which forms the foundation for the course design presented in Chapter Four. The literature to be discussed here is divided primarily into three areas: (1) teacher training programs in general; (2) competency-based programs in particular; and (3) physical education training programs as they relate to P.L. 94-142. The basic purpose of the examination is to provide an overview of the

general direction in which teacher preparation in physical education for the handicapped is moving.

Teacher Training Programs

Evidence that there is a growing concern over the need for in-service programs for regular classroom teachers to assist them in dealing with education for the handicapped and in properly implementing P.L. 94-142 can be seen in the discussions which follow. The first is an article by Osternig and Santomier who examine the implications of Public Law 94-142 for professional preparation programs. The second is an article by Minner and Knuston assessing the attitudes of teachers toward teaching handicapped children. The third article by Hardison is a study revealing the lack of teacher preparedness to teach the handicapped population in the state of Tennessee. The fourth is an article by Rude discussing the findings of a study she conducted on trends and priorities in in-service training. The fifth article by Evans discusses a comprehensive system of personal development and describes a special council which has been established to meet the needs of instructors faced with the responsibility of educating the handicapped. The sixth and seventh articles are summaries of 1981 grant proposals and describe programs for training regular classroom instructors to provide quality education for the handicapped and to properly implement P.L. 94-142.

In their study "Public Law 94-142: Implications for Professional Preparation," Osternig and Santomier examine the teacher training needs created by passage of Public Law 94-142.¹ They identify the following responsibilities as being those of the teacher who would effectively implement the law. They state that:

The thrust of the law charges the physical educator with evaluative and prescriptive responsibilities in the areas of motor fitness, motor skills, body mechanics, individual and group games and sports, movement education, and the concomitant development of affective, social, and cognitive learning.²

They further explain that because the physical education teacher is being held responsible for an extensive amount of knowledge and skill that teacher preparation programs must reevaluate undergraduate and graduate programs to determine if they are offering the kind of programs which will prepare classroom teachers and future classroom teachers to handle the responsibility of mainstreaming called for by law. They say that:

Many physical educators have had no direct experience with mentally and physically handicapped students. Therefore, it is essential that preservice and in-service professional preparation programs provide extensive academic and practical educational experiences oriented toward exceptional populations.³

¹Louis R. Osternig and James P. Santomier, "Public Law 94-142: Implications for Professional Preparation," The Physical Educator, 35 (May 1978), 76.

²Ibid.

³Ibid.

Minner and Knutson used the fact that many regular classroom teachers had no direct contact with handicapped students as a basis for an attitudinal study. This study entitled "Mainstreaming Handicapped Into Physical Education" assessed the attitudes of elementary teachers in Arizona toward the integration of handicapped children into the regular classroom.⁴ The results of their study show that in-service programs are needed to improve the attitude of the classroom teacher toward mainstreaming of the handicapped. Most of the physical education teachers anticipated problems caused by mainstreaming. While some instructors did see some advantages in mainstreaming, many saw none; and, while a majority of the instructors were interested in in-service training to deal with mainstreaming, high school instructors, for the most part, were concerned with legalities and discipline rather than techniques for teaching the handicapped. These findings make it clear that many teachers need to develop positive attitudes toward handicapped children as persons, valuable because they are human beings, able to interact effectively and meaningfully with other students, and worthy of the best education possible.

⁴Sam H. Minner and Richard Knutson, "Mainstreaming Handicapped Into Physical Education: Initial Considerations and Needs," The Physical Educator, 39 (March 1982), 13-15.

Another study, "The Status of Physical Education Programs for the Handicapped in the Public Schools of Tennessee" by Hardison reflects the inadequacies of the present physical education program for the handicapped in Tennessee schools.⁵ He observed that, although there is integration of the handicapped into the regular classroom, "less than 15 percent of the schools provided adapted physical education for the handicapped." He observed that students in the adapted classes were grouped by grade level or special class by most schools (instead of level of ability) with two-fifths of the instruction being provided by the special education teacher instead of the physical education teacher. Hardison also discovered that less than 35 percent of physical education teachers had received in-service training while 85 percent still needed training for one or more of the handicapping conditions.⁶

The findings of Hardison's study correspond to the fact that before 1980 certification requirements for regular physical education teachers in Tennessee involved no courses in special physical education or physical education for the handicapped. Requirements for special educators were not much better; for only six hours of course work in

⁵ Joel B. Hardison, "The Status of Physical Education Programs for the Handicapped in the Public Schools of Tennessee," Diss. Virginia Polytechnic Institute and State Univ., 1980, p. 36.

⁶ Ibid.

the area of adapted physical education could be counted toward the certification requirements in special education. The meagerness of these six hours was significant since the total number of semester hours for certification in special education was twenty-four. Although requirements have changed, the change does not suggest a significant move toward assuring quality education for the handicapped, for present requirements are for only "one basic course or equivalent experience in the learning and behavioral characteristics of handicapped children."⁷

In her study "Trends and Priorities in Inservice Training," Rude examines trends and priorities in in-service training brought about by the passage of Public Law 94-142 and especially by Part B of the Education for All Handicapped Children Act which calls for a comprehensive personal development system to provide a structure for the planning, implementing, and evaluating of state and local in-service training.⁸ The trends and priorities presented in this study were identified through an examination of the Annual Program Plans for 1977-78 submitted to the Bureau of

⁷Tennessee State Government, Department of Education, Division for the Handicapped, State Plan for Part B of the Education for the Handicapped (Tennessee: State Printing Office, 1980), p. 40.

⁸Carolyn R. Rude, "Trends and Priorities in Inservice Training," Exceptional Children, 45 (November 1978), 172.

Education for the handicapped conducted by the Council for Exceptional Children.

Although priority topics for in-service training differed from state to state, Rude found that the following eight ranked highest nation-wide with two in the number one position:

1. Instructional procedures/classroom management/curriculum/programming/material resources
2. Individualized education program
3. Identify, locate, refer handicapped children
4. Child evaluation procedures
5. Least restricted environment
6. Implementing Public Law 94-142
7. Communication
8. Coordination of services.⁹

Some states listed topics that were planned for in-service training which differed to a certain extent from the list of those most frequently needed. Those in the former list included protection in evaluation, procedural safeguards, and the role of surrogate parents and overshadowed such needed topics as communication and coordination of service.¹⁰ Rude sees this discrepancy as indicative of a future trend "if the stated needs are to be met."

It appears that the current focus of inservice training on day to day child evaluation, placement, and instructional problems will continue while emphasis on due process related topics will give way to training concerns for effective provision of service.

⁹Ibid., p. 173.

¹⁰Ibid.

¹¹Ibid.

Rude estimates that there are over 260,000 special education personnel and over two million regular educators who require in-service training to implement Public Law 94-142. These personnel fall into four areas: instructional, support, administrative, and others (hearing officers, surrogate parents, parents, and volunteers), with the highest priority groups being special education teachers, administrators, regular education teachers, supervisors, coordinators, psychologists, and educational diagnosticians.¹² The training emphasis for all groups seemed to be an awareness and knowledge levels with future trends being toward skill development and attitudes and knowledge and development.

Although, traditionally, in-service education was sponsored by universities, colleges, and state agencies, the trend is toward more variety in both ways of training and trainers.¹³ More in-service education is being done by state and national special and regular education organizations and by regional and state systems. Facilitators are being obtained from sources other than educational agencies and institutions of higher learning.

In her article, "A Comprehensive System of Personnel Development," Evans describes an Oregon personnel

¹²Ibid., p. 174.

¹³Ibid., p. 175.

development system called "The Cooperative Personnel Planning Council for Educational Services to Handicapped Children." She says that a comprehensive system of personnel development should have three priorities:

1. To have as its purpose the insurance that all personnel necessary to carry out the purpose of P.L. 94-142 are appropriately and adequately prepared and trained.
2. To provide adequate in-service training for "all personnel who are engaged in the education of handicapped children."
3. To provide opportunities for all interested agencies, institutions, and organizations to participate in "the development and revision of the personnel development plan."¹⁴

The purpose of the council which she describes is to enable those most directly concerned with the comprehensive system of personnel development to share ideas, comply with P.L. 94-142, and meet the needs of those involved with educating the handicapped. The council used a method called "unified program planning" which can be used manually or by computer. The system allows the identification of discrepancies between needs and resources and provides information for the design of necessary resources. Guided by the system, the council suggested ways of developing required resources and recommended appropriate agents for meeting needs and changes.

¹⁴Mary Ann Evans, "Comprehensive System of Personnel Development," Physical Education for the Handicapped: Meeting the Need Through Inservice Education, proceedings of a National Conference held at Oregon State University (Corvallis, Oregon, May, 1979), p. 57.

A grant proposal written by Herron and sponsored by SEA, "Regular Education Inservice," also describes a program for implementing P.L. 94-142 which has as one of its main components an educational council. The project described in this proposal implements a system for providing in-service personnel development to regular educators who are serving handicapped children in the least restricted environment.¹⁵ This system is made up of two components. One is a local in-service council, the primary purpose of which is to access local needs and to facilitate the development of graduate level credit courses to aid local educators in acquiring needed competencies. The other component is a special education regional resource center dealing with broader needs which could not be accommodated by individual in-service councils. In-service training programs conducted through the center deal with educational administrators' knowledge, skills, and attitudes related to P.L. 94-142. The target group for this program is 1,950 regular classroom teachers and administrators. The training approach used is competency-based. Participants are pretested to determine their degree of competency in working with the handicap

¹⁵W. Lee Herron, Descriptions and Abstracts of Regular Education Inservice Projects. Project: Local Inservice Council Inservice, Regional Special Educational Regional Resource Center Inservice and Personnel Training Systems Coordination Through the Special Education Training Network (SEA-G007901019), Pennsylvania Department of Education (Harrisburg, Pennsylvania, 1981), p. 376.

upon entering the program and posttested to determine their acquired existing competencies.

"Regular Education Inservice: Inservice Training of Special Education and Regular Education Teacher Working with Handicapped Children," a grant proposal written by Wanda Jean Rainbolt, is a description of a program for training regular physical education instructors in Kentucky in curriculum, methods, materials, and strategies for working with handicapped children and successfully fulfilling the requirements of P.L. 94-142.¹⁶ The program consists of a three-week workshop. Topics covered in the workshop are special education, motor learning, adaptive physical education, and fundamentals for developing curriculum, programs, and in-service workshops. Evaluation of the program involves collection of information on physical education teachers' past preparation, experience with and attitude toward handicapped students and measurement through observation of the degree to which objectives and sub-objectives have been met.

¹⁶Wanda Jean Rainbolt, Descriptions and Abstracts of Regular Education Projects, Inservice Training of Special Education and Regular Education Teachers Working with Handicapped Children (IAG-G007800905), Department of Physical Education and Recreation, Western Kentucky University (Bowling Green, Kentucky, 1981), p. 109.

Competency-based Instruction

This section of related literature is devoted to an examination of competency-based instruction, an approach that is being used increasingly for teacher training in the area of special physical education. This section examines what (CBI) competency-based instruction is, how it differs from more traditional programs, and how competencies are defined and identified. The first discussion, "Competency-Based Instruction," by Freischlag defines CBI. The second and third discussions, "Competency-Based Teacher Education" by Pease and "Is CBTE Cost Effective?", by Enos make comparisons between CBI and the more traditional approach to teacher training. Discussion four, "Personnel Development," identifies some competencies needed by special physical education teachers. Discussion five, "Application of Teacher Evaluation," differentiates between en route and "terminal" competencies and gives a strategy for testing; and discussion six, "Competency-Based Social Education Teacher Training," criticizes how competencies and training programs are identified and offers some suggestions for teacher training and research.

In "Competency-Based Instruction," Freischlag discusses what competency-based instruction is and how it works. He says that "CBI connotes that there are specific functional skills, knowledge, and behavior which can be identified as

prerequisite to teaching effectiveness."¹⁷ It is assumed in the CBI approach that requisite competencies can be identified by teachers and acquired by students through a modular systems approach.

Freischlag points out that two of the greatest advantages to CBI are that the instructor is able to state "all contingencies under which students will succeed in a program" and that pretesting can be used to identify the student's beginning competencies, therefore allowing the student to work only in those areas where he needs to acquire competence. Freischlag explains that CBI is essentially concerned with exit rather than entrance requirements and mastery of specified competencies is more important than course content. For this reason explicitly stated behavioral objectives are very important. This conciseness poses a problem in attempting to describe and evaluate skills existing in the cognitive domain. Although evaluation for the psychomotor domain is relatively simple, making CBI ideal for the training of teachers of special education, Freischlag thinks that this problem can be overcome through "judicious test construction." However, he says that, until such tests are available, CBI is best used in courses dealing with psychomotor skills.

¹⁷Jerry Freischlag, "Competency-Based Instruction," Journal of Health, Physical Education and Recreation, 45 (January 1974), 29-31.

The specificity and practicality of CBI which Freischlag points out in his article makes it more effective for teacher education than the more traditional course-oriented approach. Pease found this to be true in a study comparing CBI with more traditional approaches to teacher education. Pease's findings show that the main difference between CBI and traditional training is that competency-based teacher education accentuates competencies rather than course grades. He gives five factors which are prerequisite to accountability and which make the competency-based teacher program superior to the traditional program. These factors are as follow:

1. The product of the program is defined;
2. The definition of the program is in terms of competencies;
3. The competencies to be obtained are provided before instruction rather than after;
4. The definition and thus the competencies possessed by the product are available for public scrutiny; and
5. The trainee does not graduate from teacher training until he demonstrates proficiency in each competency.¹⁸

Pease sees a learning system which includes pre-assessments and post-assessments and which is "sequenced according to one of the several designs such as taxonomies,

¹⁸Dean A. Pease, "Competency-Based Teacher Education," Journal of Physical Education and Recreation, 46 (May 1975), 20-22.

degree of difficulty, or stages of development" as the key to guaranteeing accountability in the competency-based teacher program. This pre-assessment and post assessment allow the student to work only on those competencies which he needs and, if necessary, to repeat any area of his program which he does not initially master. The learning system includes the use of a variety of learning experiences limited only by the teacher's imagination. Pease points out that the only major weakness of the system is assessment because of the difficulty in defining and assessing many of the skills.

Just as Pease finds CBI to be a more effective method of teacher training than the more traditional method, so does Enos, although Enos makes a comparison based on cost effectiveness rather than pedagogical considerations. In his study conducted at San Diego State University he compares the cost and effectiveness of competency-based teacher education programs for elementary teacher education programs with more traditional teacher-training programs. The sample used in this study consisted of 73 student teachers enrolled in course work and student training. Thirty-three of them were in the CBTE program and forty in the non-CBTE program. Enos found that for both teaching effectiveness and cost the CBTE program was superior to the non-CBTE program.

Four observational instruments were used to evaluate the teaching effectiveness of each group. Those in the CBTE program rated higher in all areas:

1. Attainment of specific knowledge from fromal courses;
2. Demonstration of significantly better verbal interaction with children;
3. Demonstration of the ability to create more flexibility and task-oriented situations for children and to provide more motivation;
4. Demonstration of greater ability to diagnose and meet learning needs; and
5. Demonstration of superior student teaching performance.

"The (CBTE) Competency-Based Teacher Education program also provided better opportunities for the student teachers to be understood by the children in the classroom."¹⁹ In the area of cost-effectiveness, again the CBTE program proved the better program, being \$1,044 more cost effective per student than the regular program.

Thus far, all discussions have pointed out the fact that measurable competencies are the key to the effectiveness of the CBI program in teacher education. The specific

¹⁹ Donald F. Enos, "Is CBTE Cost-Effective? Competency-Based Versus Non-Competency Based Teacher Education," Journal of Teacher Education, 27 (Summer 1976), 121.

competencies used to evaluate the potential teacher in physical education have been identified by the American Association for Health, Physical Education and Recreation in cooperation with the Bureau of Education for the Handicapped and published in Guidelines for Professional Preparation Programs for Personnel Involved in Physical Education and Recreation for the Handicapped in 1973 as "(a) assessment, (b) program development and implementation, and (c) inter-professional activity participation."²⁰

In 1976 these skills and competencies were revised to include the following:

1. Understands and can apply sound first aid and safety procedures in the conduct of physical education activities for special pupils.
2. Understands the effect of physical activities on physical, social, emotional, and intellectual development of pupils with special needs.
3. Understands normal and abnormal growth and development.
4. Can modify traditional physical education activities for pupils with special needs.
5. Can use numerous motivating and reinforcing techniques to obtain changes in the behavior of special pupils.
6. Knows appropriate facilities and equipment used in special physical education.

²⁰Ronald French and Paul Jansma, Special Physical Education (Columbus: Charles M. Merrill Publishing Company, 1982), p. 350.

7. Can modify the physical learning environment for individual, small, and mass group participation in mainstreamed settings.
8. Understands the inherent characteristics and functional differentiation of a variety of physical education activities for special pupils.
9. Understand specific conditions and diseases which may result in motor performance disabilities.
10. Can effectively use and modify selected teaching aids or equipment in mainstreamed settings.²¹

In 1981 a committee with AAHPERD developed guidelines for both the physical educator and the special physical educator. These competencies fall into eight categories: Biological Foundations, Sociological Foundations, Psychological Foundations, Historical-Philosophical Foundations, Assessment and Evaluation, and Curriculum Planning, Organization, and Implementation.

The competencies listed above fall into the category which Popham calls "terminal competencies." In his article "Application of Teaching Performance Tests in Preservice and Inservice Teacher Education," he makes a distinction between the various kinds of competencies students learn in the training process. He identifies these competencies as either en route or "terminal" and examines the application of the teaching performance test measurement approach in

²¹Ibid., p. 351.

assessing the students' acquisitions of what he calls "near terminal competencies." The en route competencies according to Popham are those which contribute to the acquisition of "the terminal skills of being able to help the learner."²² He feels that en route skills must constantly be verified by the instructor as contributing to the students' acquisition of terminal skills, and he examines the teaching performance test as one means of validating these en route skills.

Teacher performance tests are administered to a teacher's class to measure the extent to which the teacher has met a pre-selected instructional objective in a brief period of instruction (mini lesson). An interest rating scale may sometimes accompany the test. Popham suggests three ways in which this test can be used to promote the type of instruction which develops valid competencies in the student: (1) to focus the teacher's attention on effective instruction; (2) to allow teachers to compare the effectiveness of different teaching methods; and (3) to aid in the evaluation of in-service and pre-service teacher education programs.²³ Along with these suggestions he also cited some actual successful uses of the approach. He points out three problems in the use of such tests: (1) the determination of

²²W. James Popham, "Application of Teaching Performance Tests in Preservice and Inservice Teacher Education," Journal of Teacher Education, 26 (Fall 1975), 244.

²³Ibid., pp. 245-246.

degree of validity; (2) the determination of teaching success based on frequency of successful teacher performance; and (3) the selection of mini lesson topics viewed as significant by both teacher and student.²⁴

In their review "Competency-Based Special Education Teacher Training," Shores, Cegelka, and Nelson have two major objectives. One is to analyze "the strategies by which competencies have been identified and validated for inclusion in training programs," and the other is "to suggest a few strategies for special education teacher training and research."²⁵ Information for this review was obtained from an examination of over fifty books and articles and from interviews of "a sample of personnel from prominent special education teacher training programs."²⁶

The authors identify several methods for identifying and validating competencies. Among them are examination of competency statements developed by various institutions and used by successful teachers, studies of teacher personality variables, direct observation of teacher behavior, and the use of criterion referenced studies based on "teacher variables which are related to student performance."²⁷

²⁴Ibid., p. 247.

²⁵Richard E. Shores, Patricia T. Cegelka, and C. Michael Nelson, "Competency-Based Special Education Teacher Training," Exceptional Children (November 1973), 192.

²⁶Ibid.

²⁷Ibid.

For teacher training and research the authors made the following recommendations: (1) that there be research based on direct observation of the interaction of teachers and handicapped students especially in experimentally controlled situations; (2) that the most used controlled behaviors, feedback and ignoring be specifically investigated; and (3) that there be the development of a module to train teachers in the aforementioned competency.²⁸

In conclusion, Shores, Cegelka, and Nelson make the following criticisms of the present body of competencies: (a) they are generally not stated in terms of behaviors nor criteria referenced; (b) most are too specific to one program to have general training implications; and (c) there is not enough research to validate competencies but too much reliability on expert opinion.²⁹ The authors observe that much research is needed to adequately and accurately identify competencies and that care should be taken in calling special teacher training programs competency-based.

Implementation of P.L. 94-142

Because of the growing concern over mainstreaming of the handicapped and the proper implementation of P.L. 94-142 and especially because of the specific mandates which the

²⁸Ibid., p. 195.

²⁹Ibid.

law makes of physical education, there has been a movement toward designing pre-service and in-service programs to train the regular classroom teacher to instruct the handicapped and to properly implement the law. This movement involves both studies to determine what the content of such programs should be as well as the actual creation and implementation of programs. There is a general consensus that in-service programs should emphasize a knowledge of assessment tools and teaching techniques and a positive attitude toward teaching the handicapped. In the first discussion in this section, "Prospectives on Inservice Education," based on a presentation made by Dunn at a national conference at Oregon State University, the results of the passage of P.L. 94-142 as it relates to physical educators is addressed. In the second discussion "Accountability of Inservice Training for the Implementation of P.L. 94-142," Auxter examines the systems of accountability functioning in the implementation of the law. In the third and fourth articles "A View on the Delivery of Inservice Education Related to P.L. 94-142" by Winnick and "Inservice Model to Prepare Physical Education Personnel to Instruct the Handicapped" by DiRocco, a general description of what in-service programs should contain is examined. In the fifth discussion, "Preparation of Physical Education Teachers as Required Under Public Law 94-142," Bird and Gansneder examine the preparedness level of public school

physical educators to implement the law. The final six articles in this section are descriptions of actual training programs which have been implemented.

In an address delivered at a national conference at Oregon State University in 1979, Dunn stated that the passage of P.L. 94-142 has given impetus to in-service training programs, especially those for physical education teachers who must learn such skills as screening procedures, assessment, placement, and behavior management as it related to teaching handicapped students in the least restrictive environment and who must often overcome attitude problems related to working with the handicapped. This encouragement of in-service programs is being supported at both the local and national levels. Dunn explained that, as the agency responsible for monitoring compliance with P.L. 94-142, the United States Office of Education, Bureau of Education for the Handicapped, recommended a shift of \$2 million from pre-service to in-service training programs from 1977-78.

In August of 1977 a group of special educators were invited to Washington to make recommendations concerning how in-service practitioners could best provide teachers with appropriate skills to teach the handicapped child. In brief, the recommendations were as follows:

1. Create inservice experiences which agree with the intent of P.L. 94-142.
2. Plan programs consistent with the particular state.

3. Plan programs reflective of the resources of local education agencies, state education agencies, and institutions of higher education.
4. Include prospective trainees in the planning phase of inservice training programs to obtain a realistic view of needs.
5. Demonstrate positive changes in teacher behavior which is consistent with providing effective individualized educational programs.
6. Conduct follow-up activities to insure that skills have been learned and are being used.
7. Develop a system for training trainers.
8. Provide instances for sharing successful and unsuccessful training models.
9. Include administrators in the training program.
10. Evaluate changes in the attitudes, skills, and knowledge of trainees.³⁰

The recommendations which Dunn recounted above are reflected in the two systems of accountability which Auxter examines in his article. He identifies these systems as a hierarchical accountability of government administrative structure, focused on budgetary concerns, and the accountability to statutory and constitutional law involving performance by in-service trainers and teachers which they train in the correct implementation of the mandates set down

³⁰ John M. Dunn, "Perspectives on Inservice Education," Physical Education for the Handicapped: Meeting the Need Through Inservice Education. Proceedings of a National Conference held at Oregon State University (Corvallis, Oregon, May, 1979), pp. 4-5.

by P.L. 94-142.³¹ Auxter is particularly concerned with the accountability of those who provide in-service training to teachers who are to implement P.L. 94-142 with special attention to implementation of the Individual Education Program (IEP). He says that, in order to be accountable, the in-service trainer should have a thorough understanding of Special Education and the various assumptions made about it. The in-service trainer is directly responsible to the trainee to see that he is able to implement P.L. 94-142 correctly so that education of the handicapped is optimal, so that the handicapped can function in the community, and so that home and community can interface effectively with educational efforts. The trainer must provide a program that is comprehensive, that provides effective materials and experiences, and that provides competently trained personnel who can convey to the trainee the significance and scope of the term "equally effective programs" as it related to providing quality education to the handicapped. In short, the trainer is responsible for providing in-service training programs as prescribed by P.L. 94-142. This implies the acquisition of new techniques for instructing children with individualized programming.

³¹David Auxter, "Accountability of Inservice Training for Implementation of P.L. 94-142," Physical Education for the Handicapped: Meeting the Need Through Inservice Education. Proceedings of a National Conference held at Oregon State University (Corvallis, Oregon, May, 1979), p. 9.

Auxter further observes that in order for accountability to be maintained curriculum must be carefully selected and certain training conditions must exist. Personnel must be competent. Objectives and experiences must be appropriate, and some type of valid evaluation process must be found for determining that objectives are met and that experiences achieve the desired results. Practicums must be provided to insure that the trainee can properly implement P.L. 94-142; some mechanism must exist for the evaluation of trainees, and some agreement of evaluation must exist between internal and external evaluators. The certification of trainees must be based on the capability of personnel to deliver legally mandated services to their clients and certification standards must reflect changes brought about by the law.³²

Winnick also sees proper instruction in the implementation of P.L. 94-142 as being the most important responsibility of the in-service trainer. He says that an understanding of the law is the key to in-service to aid educators in obtaining funds for advocacy purposes, to operate programs, and for many other legal and educational

³²Ibid., pp. 19-20.

reasons.³³ Winnick agrees with Auxter that follow-up to in-service programs are essential, but he suggests follow-up be done in the form of conferences, newsletters or consultant counseling rather than formal evaluation.

In delivering in-service training, Winnick recommends the use of a variety of methods including audio-visual aids, lectures, and resource persons. He feels that peer teaching should play a role in in-service education to tap the knowledge possessed by many participants and to add to their enjoyment by actively involving them in the program. The content of the program should deal with intramurals and athletics as well as physical education instruction to allow the handicapped opportunities in these areas as well.

Winnick observes that in-service faculty who have actually served the roles assumed by the target audience are generally more effective since they can identify with the audience's problems. This faculty must use a positive approach in discussing P.L. 94-142 and convince the participants that all children should have the right to a quality education. Teachers should be told that successful implementation of physical education for the handicapped

³³ Joseph P. Winnick, "A View on the Delivery of In-service Education Relative to P.L. 94-142," Physical Education for the Handicapped: Meeting the Need Through Inservice Education. Proceedings of a National Conference held at Oregon State University (Corvallis, Oregon, May, 1979), p. 44.

depends on individualizing instruction and techniques for integrating handicapped and regular pupils. He believes that the most important goal in in-service training is developing a positive attitude in educators regarding the law and regarding handicapped people since this will affect the quality of instruction given to the handicapped.

DiRocco also sees the pressing need for in-service programs for the regular classroom teacher of physical education not only because of the mandates of P.L. 94-142 but because of the decline in the number of new teaching positions caused by increased operating cost.³⁴ This increase reduces the possibility of new teachers who have been prepared through their education to deal with the handicapped.

DiRocco feels the need for an in-service program which features assessment tools for determining staff needs, resource materials designed for training programs, group and individual training techniques to upgrade competencies and subject materials appropriate to a training program.³⁵ He agrees with Winnick that developing a positive attitude in those being trained is essential, and he sees the biggest

³⁴Patrick DiRocco, "Inservice Model to Prepare Physical Education Personnel to Instruct the Handicapped," Physical Education for the Handicapped: Meeting the Need Through Inservice Education. Proceedings of a National Conference held at Oregon State University (Corvallis, Oregon, May, 1979), p. 72.

³⁵Ibid., pp. 73-75.

problem in designing such a model as combating the negative attitude which society and, consequently, teachers have toward working with the handicapped.

An effective model for DiRocco would be one which is "geared toward maximizing the attainment of individual needs" through assessment, both formal and informal, of the trainees' knowledge of such areas as handicapping conditions, legislation concerning education of the handicapped, behavior management techniques, and through assessment of his attitudes toward working with the handicapped person.³⁶ The model should suggest resource materials such as films, textbooks, reprints of articles, assessment tools, and a list of agencies, associations, and personnel which could be borrowed or reviewed when needed. Delivery strategies should be varied such as summer institutes, peer tutoring, individual programs, and practicum experiences. Curriculum for such a model would be determined by the needs of the particular district, but should include information of such conditions as asthma, auditory impairment, cardiac impairments, cerebral palsy, diabetes, emotional disturbances, epilepsy, learning disabilities, and on federal and state legislation.³⁷

³⁶Ibid.

³⁷Ibid., p. 78.

DiRocco feels that universities can aid in this process by designing field tests and assessment tools.

That the concern over in-service programs as demonstrated by the discussions above is valid is shown in such studies as the one presented here by Bird and Gansneder. Their study assessed the preparedness level of public school physical education teachers to meet the physical education requirements stipulated in P.L. 94-142, and reflect a 40% return from a random sample of 912 Virginia physical educators.

To assess their preparedness, respondents were asked to indicate their educational attainment levels and to evaluate their knowledge of handicapping conditions, competencies to perform various program related tasks, and training in physical education for the handicapped.³⁸

The results of the survey revealed that many teachers had not had adequate practical experience in adaptive physical education, did not have adequate knowledge of the "nature and causes" and of the "motor needs and tolerance" of certain handicapping conditions, and did not have adequate formal training in adaptive physical education. In the area of competencies, the respondents rated themselves higher than in the other areas, but there was not a significant difference in any response.

³⁸Patrick J. Bird and Bruce M. Gansneder, "Preparation of Physical Education Teachers as Required Under Public Law 94-142," Exceptional Children (March 1978), 464.

As a result of this survey, Bird and Gansneder concluded that "inservice teacher training must increase its emphasis on providing physical educators with knowledge of handicapping conditions and appropriate programming."³⁹

To meet the needs of physical education teachers such as those represented in the above study, numerous training programs have been designed. The following are summary descriptions of six such programs.

In her article "A Field Delivery System for Inservice in Rural State," Harrington describes a program established at Washington University in June of 1977 for retraining physical education teachers to comply with P.L. 94-142. This program was funded by the United States Office of Education, Bureau of Education for the Handicapped, and focused on the development of competencies needed by physical education teachers to work with the handicapped in the regular classroom setting. The ultimate goal of the program was "to structure a curriculum leading to a Master's Degree in Physical Education."⁴⁰ An additional grant was approved for the implementation of the program under development to allow school personnel in rural communities

³⁹ Ibid., p. 465.

⁴⁰ Wilma M. Harrington, "A Field Delivery System for Inservice in a Rural State," Physical Education for the Handicapped: Meeting the Need Through Inservice Education. Proceedings of a National Conference held at Oregon State University (Corvallis, Oregon, May, 1979), p. 87.

ready access to training in a variety of convenient local settings while still attaining graduate credit.

Competencies for the program were adapted from regular classroom competencies available from FESP and adapted to conform to P.L. 94-142. Select roles and competencies were guidelines for professional preparation for working with the handicapped and the minimum generic standards set for regular and special education teachers in the state of Washington. The eleven original criteria provided were condensed into "three broad standards":

1. Knowledge and understanding of the various categories of exceptionality including the nature, needs, and problems of handicapped students
2. The ability to develop, implement, and evaluate diversified physical education programs for individuals and groups of normal and handicapped children
3. Competency in communicating with professionals, paraprofessionals, parents, students, and others related to program progress and individual achievement of goals and objectives.⁴¹

Seven identified roles for the teachers were developed; they are:

1. Teacher of physical skills and related activities to the handicapped
2. Program planner for the handicapped
3. Promotion of health and safety for the handicapped

⁴¹Ibid., p. 88.

4. Public relations interpreter of programs for the handicapped
5. Advisor for the counseling and guidance of the handicapped with respect to physical activity
6. Member of a school faculty and professional organizations
7. Member of a professional team working with the handicapped.⁴²

These roles and competencies along with competency facilitating objectives were finalized by a panel of experts in the area of motor learning, adaptive physical education, and therapeutic recreation. The curriculum for a master's program composed of already existing courses and new courses was designed.

Because of the rural nature of the area an outreach program was developed in the form of a field delivery system with workshops seen as a summer option only. This field delivery system can be used over a long period of time, and it allows participants to remain in their geographical areas. Televisions, video tapes, and telephone hookups will be used as modes of presentation with other activities for the class to perform during or after viewing of tapes to alleviate boredom. A variety of settings and avoidance of the lecture method were emphasized. The content of the system will focus on assessment procedures and methods of individualizing instruction.

⁴²Ibid., p. 89.

Horgan and Porretta's article "A Model Staff Development Program for Implementing P.L. 94-142 in Physical Education" describes the project: Stop-Gap training program at Temple University. This program was designed to train teachers of physical education to meet the "mandates of Public Law 94-142 . . . as they relate to physical education and motor development."⁴³

Horgan and Porretta describe the training program as "oriented toward accommodating handicapped children in a need-appropriate physical education curriculum."⁴⁴ Project Stop-Gap is not an in-house training program but one which involves all resources and institutions which have contributing potential, including local educational agencies. Stop-Gap trainee/specialists who are all professional physical educators act as liaisons to assist in coordinating staff development activities.

The In-service/Staff Development Training Program includes ten curricula, one of which deals with general information and the others with specific handicaps. Each curriculum uses a competency-based approach in training. Each curriculum with the exception of the general course has

⁴³James S. Horgan and David L. Porretta, "A Model Staff Development Program for Implementing P.L. 94-142 in Physical Education," Journal of Physical Education and Recreation (March 1979), 35.

⁴⁴Ibid.

seven common components: Didactic Presentation, Practical Application/Demonstration, Practical Application/Participation, Discussion and Debriefing, Practical Application/Mastery Session, and Exit-Level Assessment.⁴⁵ The instructional delivery design for the program consists of general curriculum goals which are delineated by behavioral objectives assessed through preliminary and follow-up evaluations.⁴⁶

"Regular Education Inservice: Physical Education for the Handicapped--A Knowledge to Practice Field-Based Projects for Continuous Professional Development" is a description of a project proposed by Taylor to assist the educators in Chicago to provide instruction to handicapped students in the least restricted environment as required under P.L. 94-142. The target group for this project includes principals, classroom teachers, and special educators as well as physical educators. The major objectives of the project are to encourage educators in the Chicago area to provide physical education for handicapped children between the ages of 3 and 21, to encourage the use of in-service programs to train teachers to provide necessary physical education services to the handicapped, and to increase the responsiveness of the faculty and staff

⁴⁵ Ibid., pp. 35-36.

⁴⁶ Ibid.

of UIUC Department of Physical Education to the needs of school personnel regarding the delivery of physical education to the handicapped.⁴⁷ Evaluation includes internal and external assessments, pre/post attitude, needs assessment, and competency inventories-surveys.

"Graduate Preparation of Physical Education Teachers and Recreation Therapists for the Handicapped--Preservice and Inservice Components," a grant proposal written by Bundschuh, consists of a master's degree program to prepare physical educators and recreators to serve all handicapped persons, preparing them to be direct-care providers, resource specialists, and supervisors/administrators. The in-service program is designed not only for those directly responsible for providing service to the handicapped but also for those who must make decisions.

The focus is in developing awareness of alternatives for handicapped students within the least restrictive program as well as special programs and means for promoting cooperation among agencies in planning and implementing interventions.⁴⁸

⁴⁷ John L. Taylor, "A Knowledge to Practice Field-Based Projects for Continuous Professional Development," Descriptions and Abstracts of Regular Education Inservice Projects (IHE-G00790092), Department of Physical Education, University of Illinois (Urbana, Illinois, 1981), p. 155.

⁴⁸ Ernest Bundschuh, "Graduate Preparation of Physical Education Teachers and Recreation Therapists for the Handicapped--Preservice and Inservice Components," Descriptions and Abstracts of Regular Education Inservice Projects (IHE-G007901299), Athens Unit G.R.C. (Athens, Georgia, 1981), p. 123.

The major objectives of the program are to provide experiences which will enable the participants to develop skills and techniques in the area of "(1) responsibilities of physical education to the handicapped, (2) developing individualized educational plans, (3) physical education program planning, (4) modified sports and games, and (5) assessment and evaluation."⁴⁹

The next funded program entitled "Regular Education Inservice for the Preparation of Personnel under P.L. 93-380 Part D" proposed by Wehr is designed for the in-service training of physical educators and related personnel who are responsible for the education of the handicapped in four of Georgia's Learning Resources Areas. The main objective of the program is to establish a training center within each of the four regions. Specific objectives for the program follow:

1. To increase awareness of Georgia House Bill No. 504 and P.L. 94-142 as it related to physical education for handicapped children
2. To increase awareness of the components of a quality program including competencies of needed personnel, materials, facilities, and sources of assistance

⁴⁹ Ibid.

3. To increase awareness of organizational strategies for better program implementation.⁵⁰

Evaluation is in the form of pre-post surveys, questionnaires, and on-site evaluation of the in-service training centers' personnel.

"Handicapped Personnel Preparation 13.45 Inservice Dissemination and Demonstration Center" is a grant proposal "to disseminate awareness information regarding PEOPEL (Physical Education Opportunity Program for Exceptional (handicapped) Learners) by conducting workshops at up to five regional sites on a nationwide basis."⁵¹ The training approach includes peer teaching; individualized instructions; use of task analyzed, performance objectives; specially designed curriculum materials for handicapped learners; and administrative and support staff training related to implementation procedures and responsibilities. The major objective of the program is

to provide practical and usable information for physical educators, administrators, and other interested professionals and community members concerning the

⁵⁰Richard W. Wehr, "Regular Education Inservice for the Preparation of Personnel Under P.L. 93-380 Part D," Description and Abstracts of Regular Education Inservice Projects (IHE-G007900961), Georgia State University, Department of Health, Physical Education, Recreation and Safety (Atlanta, Georgia, 1981), p. 126.

⁵¹Ed Long, "Handicapped Personnel Preparation 13.45 Inservice Dissemination and Demonstration Center," Description and Abstracts of Regular Education Inservice Projects (LEA-G008000981) (Phoenix, Arizona, 1981), p. 42.

benefits and effectiveness of peer-teaching through trained student aides in the Physical Education Opportunity Program for Exceptional (handicapped) Learners (PEOPEL), with emphasis on cost feasibility, exportability and educational significance.⁵²

Evaluation includes a pre-post test to measure knowledge of P.L. 94-142, "assessment of need for a proven (validated) transportable, cost effective approach . . . for meeting with compliance of P.L. 94-142"⁵³ and questionnaire surveys on the effectiveness of the training program.

Summary

The growing concern over mainstreaming of handicapped students and for the proper implementation of P.L. 94-142 has given impetus to a concern for and development of pre-service and in-service teacher training programs, especially in physical education. Surveys are being conducted to identify trends and priorities in training programs and to assess the preparedness of regular classroom teachers to provide quality instruction for the handicapped. The search for the most effective method for teacher training programs has revealed that the competency-based approach generally proves more effective than the traditional course-oriented method both in cost and in student acquisition of knowledge. As a result of the emphasis which is being placed on the competency-based approach, those responsible for providing

⁵²Ibid.

⁵³Ibid.

training have become concerned with identifying needed competencies, differentiating types of competencies involved in training and discovering ways of evaluating trainees to determine how well they have mastered needed competencies. Methods of determining competencies are being questioned, and better methods for this identifying process are being sought.

Realizing the nature of accountability in delivering training is being examined and suggestions made for more effective fulfillment of this accountability. Theorizing about the nature of training programs and the consequent designs which should be used are becoming plentiful, and, of course, many state and federally funded programs for training are being implemented. Yet, despite this growing concern and despite the increase of training programs, surveys indicate that there is still a need for comprehensive, effective teacher-training programs. That continuing need has prompted this study and, consequently, the teacher-training program which will be presented in a later chapter.

CHAPTER THREE

Methods and Procedures

The primary purpose of this study has been to develop an instructional delivery design for an in-service graduate training program in physical education programming for the handicapped to accommodate the training requirements and mandates of Public Law 94-142. The secondary purpose of this study has been to develop an instructor/student manual to facilitate the implementation of this model program. This program model is a competency-base, modularized course, providing ten weeks of theoretical information and a six-week practicum. The task of designing this program model has been accomplished by an examination of relevant literature and a survey of physical education teachers in the Metro Nashville area to determine their level of preparedness to deal with the implementation of Public Law 94-142.

General Discussion

The literature selected for review in Chapter Two provided an overview of trends, priorities, and pedagogical concerns in the design of current in-service and pre-service teacher training programs, especially as these concerns

relate to Public Law 94-142 and to physical education. This literature provided insight into the philosophical bases for teacher preparation programs and information which was of assistance in designing the model presented in this study. The survey of Metro Nashville physical education teachers to determine their level of preparedness in instructing the handicapped grew out of an examination of related literature which suggested that the survey is an effective method for realistically evaluating in-service needs.

The questionnaire used in the survey was designed by the writer with the assistance of his major professor and in consultation with the following members of the Tennessee State University faculty: Dr. Delores Mathis, Department of Special Education, Dr. Mary Watkins, Department of Physical Education, and Dr. Monetha Reaves, Department of English. The questionnaire is divided into three main divisions. The first set of questions is designed to provide information concerning the teacher's years of experience, present educational status, and current educational preparation. The second set of questions provides information about the teacher's prior training in special physical education and the level at which that training occurred. The third part of the questionnaire is a checklist designed to determine how teachers who must implement Public Law 94-142 rate themselves in terms of required competencies. The tasks listed in this section of the questionnaire imply

competencies identified by the American Association for Health, Physical Education and Recreation and the Bureau of Education for the Handicapped, published in Guidelines for Professional Preparation Programs for Personnel Involved in Physical Education and Recreation for the Handicapped (revised in 1976).

The questionnaire was used to obtain a profile of the Metro Nashville physical educators in relation to their preparedness to properly implement Public Law 94-142. This needs assessment assisted in meeting the major objective in designing the training model to facilitate the implementation of Public 94-142 by revealing the needs and interests of the target group for which the program was designed. The questionnaire was constructed to answer questions related to the design of the training program. Generally, the results of this questionnaire gave insight into what is available to teachers at present in the way of learning experiences related to Public Law 94-142 and to determine where this program will fit into the educational process.

In preparation for conducting the survey, the writer obtained critiques of the questionnaire from five public school physical educators concerning its clarity and appropriateness for obtaining the desired information. One hundred ninety-six copies of the questionnaire were taken to the office of the Coordinator of Elementary Physical Education for the Metro Public Schools in two trips

(February 8 and March 15) for distribution to Metro physical educators and were collected from that office on April 3 for data analysis. While the survey of relevant literature proved invaluable in providing philosophical and pedagogical insights, the survey of physical education teachers held the key to the design of an effective competency-based teacher training program model which will effectively serve this community.

Responses for each item in the questionnaire were grouped and tabulated, and the percentage of each type of response for each item was obtained. Chi-square computations were also used to determine the significance of each type of response.* Both Chi-square computations and percentages were used in analyzing the data to obtain information on the form and content of the in-service training course.

*The Chi-square is a test of statistical significance which helps to determine whether any systematic relationship exists among variables by comparing their actual internal distribution patterns with an expected distribution pattern which uses algebra to derive their expected pattern from the known total group distribution pattern. All cell differences are summed to provide the Chi-square value. The probability of a systematic relationship existing is determined by the size of the Chi-square test. Generally, the larger the Chi-square value, the greater the probability of the existence of a systematic relationship. Once a systematic relationship is determined to exist, an inspection of the internal distribution is necessary to interpret the meaning of the relationship.

CHAPTER FOUR

Analysis of Data and Discussion

In an attempt to design an in-service training model which would prepare regular physical educators to properly implement Public Law 94-142, a 17-item questionnaire was distributed to the 196 physical education teachers in the Metro Nashville School System. Of the 196 questionnaires distributed, 102 were returned. A complete analysis of the questionnaire appears in the appendixes. The results of this survey substantiated the findings of the related literature: that there is a desire and need for in-service training in physical education programming for the handicapped. Of the 102 teachers responding to the survey, an overwhelming majority indicated that they are interested in participating in an in-service training program dealing with physical education programming for the handicapped. This positive response appeared to grow from a felt need as indicated by the fact that a majority had neither in-service training nor practicum experience (see Table 1). Over three-fourths of those responding had either little or no knowledge of the competencies needed for teaching the handicapped (see the appendixes for an analysis of specified competencies).

Table 1
Analysis of Key Survey Areas

Interest in in-service training program	
Total Responding	<u>102</u>
Yes	<u>90</u>
No	<u>12</u>
Type of in-service program desires	
Total Responding	88
Graduate Courses	<u>40</u>
Workshops	<u>38</u>
Clinics	<u>10</u>
Number of present in-service training hours (clock hours) in physical education for the handicapped	
Total Responding	<u>101</u>
None	<u>53</u>
01-10	<u>42</u>
11-20	<u>6</u>
Number of present practicum courses in physical education for the handicapped	
Total Responding	<u>100</u>
None	<u>68</u>
01-02	<u>28</u>
03-04	<u>4</u>
Pursuit of advanced degree	
Total Responding	91
Yes	<u>31</u>
In Preparation	<u>29</u>
No	<u>31</u>

Those surveyed also indicated that the preferred method for delivery of the needed training is a graduate course since all of the target population have at least the bachelor's degree and since a majority of them are experienced teachers

who are pursuing or who are interested in pursuing an advanced degree (see Table 1 under "Pursuit of Advanced Degree").

In-service Training Course Model

The in-service training program is in the form of a four-hour graduate level course. This course is a competency-based, modularized course of study which combines both theory and practical experience in two distinct components. The first component consists of eight weeks of independent work and structured classroom work on identified tasks contained in seven modules. The second component is a six-week, sixty-hour practicum.

Students will utilize a manual to guide them through the course. The manual contains an introduction which provides the course description, its purpose, and the "terminal" competencies, in the form of behavioral objectives which the student should achieve. The body of the manual is divided into three sections based on the two components of the course and a one-week introduction and orientation period. Component one contains a list of specific en route competencies, descriptions of tasks, homework assignments, and references. In addition, component one contains a list of study questions, key terms, and a description of learning activities. Component two consists of a list of specific en route competencies, practicum procedures, and a description of practicum sites.

Note that the manual presented in this chapter contains an instructor's addendum. While student copies of the manual will not contain this additional material, this addendum may be added to instructor copies to allow the manual to fulfill the dual purpose of both a student and teacher manual. The instructor's addendum contains suggested class activities, audio-visual aids and pretests and posttests.

INTRODUCTION TO THE STUDENT MANUAL

This manual has been prepared for your use as a guide through Physical Education 603, Mainstreaming in Physical Education. It contains essential information which you will need such as the course description and purpose and the competencies which you should acquire as a result of taking this course. The body of the manual is divided into three sections: Introduction and Orientation, Overview and Handicapping Conditions, and the Practicum. Both major sections of the manual (the Overview and Handicapping Conditions and the Practicum) contain a list of specific en route competencies which you are expected to acquire upon completion of that component, a description of tasks and homework assignments, and a list of related readings. Component one also contains a list of study questions and key terms. Following are the texts for the course and the "terminal" competencies in the form of behavioral objectives.

Required text:

Crowe, Walter, David Auxter, and Jean Pyfer.
Principles and Methods of Adapted Physical
Education and Recreation. Saint Louis, Missouri:
The C. V. Mosby Company, 1981.

Supplementary Texts:

Fait, H. F. Special Physical Education: Adapted,
Corrective and Developmental. Philadelphia:
W. B. Saunders Company, 1978.

French, Ronald W., and Paul Jansma. Special Physical Education (1st ed.), Columbus, Ohio: The Charles E. Merrill Publishing Company, 1982.

Kalakian, Leonard H., and Carl B. Eichstaedt. Developmental Adapted Physical Education (1st ed.), Minneapolis, Minnesota: The Burgess Publishing Company, 1982.

Terminal Competencies Stated as Behavioral Objectives

Upon completion of this course you should be able:

1. To identify and discuss modern trends in physical education programming for the handicapped.
2. To identify those laws which deal with physical education for the handicapped and to discuss the major provisions of each law.
3. To describe the characteristics of specific handicapping conditions and the implications of those conditions for physical education programming.
4. To design an individualized program of study based on administration, interpretation, and application of formal and informal assessment techniques.
5. To formulate and implement behavioral management guidelines to create a safe and wholesome environment for children engaged in physical education activities.
6. To list and explain the instructional strategies that can be used when teaching physical education to handicapped students.
7. To demonstrate, by example, the ability to modify traditional physical education activities to meet the needs of students with specific handicapping conditions.

Course Description

Mainstreaming in physical education is a competency-based, modularized course of instruction to assist physical

educators in developing or enhancing identified skills needed to provide effective programming in physical education for the handicapped and to properly implement legislative mandates, especially those stipulated in Public Law 94-142. Its purpose is to assist physical educators in acquiring the necessary knowledge, skills, and competencies to enable them to provide physical education and motor development activities for exceptional children in the least restricted environment. At least one undergraduate course in special physical education or in physical education programming for the handicapped is a prerequisite for taking this course.

The course model is structured according to en route and "terminal" competencies.¹ That is, each component is designed so that you can acquire a set of en route competencies as successful completion of that particular component. The acquisition of en route competencies should result in the development of "terminal" or general competencies to be acquired by the end of the course of study. For instance, each module in the first component of the course, with the exception of the first module, addresses a specific handicapping condition. En route competencies for each module involve such aspects as

¹W. James Popham, "Application of Teaching Performance Tests in Preservice and Inservice Teaching Education," Journal of Teacher Education, 26 (Fall 1975), 224.

knowledge of (1) prevalence of the specific handicapped among the school age population; (2) characteristics of each handicapping condition; (3) suggested methods and strategies for teaching this population; (4) assessment methods and techniques; (5) individualization of instruction for the specific population; and (6) modification of physical education activities for the population. Your successful completion of all modules will indicate that you have developed the theoretical base for acquiring "terminal" competencies needed to provide instruction to the handicapped student population and are ready to participate in the six-week practicum.

The first week of the course is an introduction and orientation period and deals with instructions and procedures for Component One. The first component consists of seven modules on the following topics:

1. Overview of Physical Education Programming for the Handicapped
2. Mental Retardation
3. Emotional Disturbances
4. Sensory Impairments
5. Neurological and Muscular Handicaps
6. Orthopedic Handicaps
7. Other Health Impairments.

Each module is composed of a pre-assessment designed to determine your knowledge of pertinent information on the particular subject. You must score at least 90 percent on the pre-assessment to be exempted from a particular module. Based on your performance on the pre-assessment, you will

either be exempted from the activities of that particular module and will act as a resource person on that topic, be instructed to pursue a modified program based on weaknesses indicated by the pre-assessment, or be instructed to participate in all activities indicated for that module. Each complete module contains, in addition to a pre-assessment, a presentation of theoretical information, an observational experience, an evaluation or discussion session, and a post-assessment. You will be responsible for information covered in class on designated days during the eight-week modularized component as well as for independent work on the seven modules of the course.

Although you must make 90 percent on the pre-assessment to be exempted from a module, a score of 80 percent on the post-assessment is acceptable for successful completion of a module. It will be assumed that, when you have successfully completed each module, you will have acquired the competencies for that particular component. If you fail to pass the posttest, you will have an opportunity to do remedial work under the supervision of the teacher. This work will consist of assigned readings and discussion conferences.

You will work in one of the special schools for the handicapped during the practicum component since these schools will provide a variety of experiences not obtainable in the regular schools. The six-week practicum will be

conducted in various special schools for the handicapped in the Nashville area with two weeks each being devoted to practical experience in dealing with the mentally, emotionally, and the physically handicapped. The practicum will provide a continual opportunity to apply educational theory in a special classroom setting and will allow you to function in virtually every role of the professional teacher. Evaluation of your performance will be a joint task of the classroom instructor and the site supervisor based on a list of en route and "terminal" competencies which you are to acquire.

The course is set up on a 500-point system with the practicum being worth 100 points, six modules being worth 50 points, and one module (Module One) being worth 100 points. In order to pass the course, you must accumulate points equivalent to 80 percent on each individual module and for the practicum.

The instructor will assess, in writing, the knowledge which you acquire from each module after you have taken each posttest. After successfully completing each posttest, you will have a grade of "passing" recorded for you. You may take each module posttest a maximum of three times and must complete all module posttests successfully by the eleventh week of the sixteen-week semester to receive a passing grade.

Final grades will be determined by the total of all points from posttests, practicum, and class activities. The following marks will be used to indicate the quality of your work:

- A - Superior 90% or above
- B - Average 80% - 89%
- C - Failing 70% - 79%
- I - Incomplete

Module One

An Overview of Laws and Modern Trends

The purpose of Module One is to aid you in acquiring an overview of federal legislation and the resulting modern trends in physical education programming for the handicapped. When you complete this module, you should have acquired the following en route competencies: Stated below as behavioral objectives.

En Route Competencies

1. To discuss the significant features of P.L. 89-10, P.L. 93-112, and P.L. 94-142, and the implications of these federal laws for physical education programming for the handicapped.
2. To define and explain key terms related to federal legislation and to programming for the handicapped.
3. To give a documented rationale regarding principles that apply to mainstreaming and list its advantages.
4. To give a documented explanation of "least restricted environment" and the legal and moral concepts upon which it is based.
5. To list and describe the handicapping conditions identified under federal law and indicate the prevalence of persons with handicapping conditions among the school-age population.
6. To identify and describe the various assessment instruments for physical and motor fitness and fundamental motor skills and patterns.
7. To identify and define appropriate placement for individuals with handicapping conditions.
8. To list and explain the instructional strategies and modifications that can be used when teaching physical education to handicapped students.

Module One
Outline of Content

- I. Federal Legislation and Physical Education Programming for the Handicapped
 - A. Public Law 89-10
 - 1. French and Jansma, pp. 23-28.
 - 2. Fait, pp. 6-7.
 - B. Public Law 93-112
 - 1. French and Jansma, pp. 23-28.
 - 2. Crowe, et al., pp. 3, 11, and 192.
 - C. Public Law 94-142
 - 1. Crow, et al., pp. 20, 79-80, 106, 192.
 - 2. French and Jansma, pp. 23-28.
- II. Modern Trends in Programming for the Handicapped Resulting from Legislation
 - A. Scope
 - 1. Crowe, et al., pp. 3-22.
 - 2. French and Jansma, pp. 5-27.
 - B. Aims and Objectives
 - 1. Crowe, et al., p. 425.
 - 2. Fait, pp. 56-57.
 - C. Mainstreaming
 - 1. Crowe, et al., pp. 85-86.
 - 2. Kalakian and Eichstaedt, pp. 23-35.
 - D. Organization Structure for Program Planning
 - 1. Crowe, et al., pp. 423-455.
 - 2. French and Jansma, pp. 337-356.
 - E. Assessment
 - 1. French and Jansma, pp. 293-317.
 - 2. Kalakian and Eichstaedt, pp. 48-60.
 - F. Instructional Strategies
 - 1. Crowe, et al., pp. 192-215.
 - 2. French and Jansma, pp. 134-136.

Key Terms

1. A.A.H.P.E.R.D.
2. Accessibility
3. Adapted Physical Education
4. Barrier Free
5. Content-Reference Test
6. Corrective Physical Education
7. Developmental Physical Education
8. Due Process
9. Exceptional Children
10. Free Appropriate Education
11. Fundamental Motor Skill
12. Handicapping Conditions
13. I.E.P.
14. Individualized Instruction
15. Interpret-Reference Test
16. Least Restricted Environment
17. Mainstreaming
18. Motor Fitness
19. N.C.P.E.R.H.
20. Norm-Reference Test
21. Physical Fitness
22. Related Services
23. Special Physical Education
24. The Education for All Handicapped Children Act
25. The Elementary and Secondary Education Act
26. The Rehabilitation Act

Module One
Study Questions

1. How is handicapped defined by law?
2. Which law gives a specific definition of handicapped?
3. What handicapping conditions are identified by law?
4. What is the difference between exceptional students and handicapped students?
5. Give the titles and numbers of the relevant laws governing the education of handicapped children.
6. What year was the first of these laws passed?
7. What is the difference between mainstreaming and providing education in the "least restricted environment?"
8. List the most important aspects of each law dealing with education of the handicapped.
9. Give the law which is most relevant for physical education and explain why it is so important in the field.
10. What provisions have been made by the federal government for the implementation of the law?
11. What needed competencies are implied by the law?
12. Discuss the concept of accountability as it relates to law.
13. What is the function of the Information and Research Utilization Center in Physical Education and Recreation for the Handicapped?
14. Define the following in terms of approach and philosophy:

Separate class
Dual class
Combined class
Flexible plan

15. Define special physical education and discuss its three main areas.
16. What are the aims and specific objectives of special physical education?
17. What are the percentages of the various handicapping conditions among the school-age population?
18. List and describe the types of assessment instruments for physical and motor fitness and fundamental motor skills and patterns.
19. What are the differences and similarities between norm-reference and interpret-reference tests?
20. Define and describe the components of an I.E.P.
21. What are the specific guidelines for developing a barrier-free facility?
22. What should be taken into consideration when providing equipment for the handicapped?
23. When, if ever, is it justifiable not to mainstream handicapped students?
24. What are some activities which facilitate understanding and cooperation between handicapped and non-handicapped students? Identify and describe them.
25. What are some psychological problems associated with handicapped students? Why is it important for a physical education teacher to be aware of these problems?
26. What are some problems which mainstreaming creates for non-handicapped students? How can a physical education teacher alleviate these problems?
27. As a physical educator, one of your objectives should be to help students develop respect and appreciation for their bodies; how would you assist a handicapped student to develop these positive attitudes?

Assignments for Module One

1. A posttest covering class activities, study questions, and key terms.
2. A brief paper of from four to six typewritten pages on "Federal Legislation and Physical Education Programming for the Handicapped" or on "Modern Trends in Physical Education Programming for the Handicapped" documented from current scholarly journals.
3. A summary of two articles from two separate scholarly journals, one on federal law governing education of the handicapped and one on modern trends in physical education programming for the handicapped.

REFERENCES FOR STUDENTS AND THE INSTRUCTOR

Books

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- Bucher, Charles A. Administration of Physical Education and Athletic Programs. (7th ed.), St. Louis: The C. V. Mosby Company, 1979.
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INSTRUCTOR'S ADDENDUM

INSTRUCTOR'S ADDENDUM

Suggested Class Activities for Module One

1. Resource persons. It is suggested that resource persons be used whenever possible, especially in the discussion of federal law. Lawyers, administrators of special physical education programs, and teachers in special programs will make excellent resource persons.
2. Audio visual aids. Following are films which would enhance the study of this first module. They will be effective in introducing relevant topics or generating class discussion.

Exceptional Times: An Historical Perspective of Special Education, 6mm, 16 min., color. The development of special education teaching methods, technology, legislation, and advocacy.

Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22071

Education for All Children: The Challenge of the Eighties, 18 mm, 28 min., color. The development and implementation of P.L. 92-142 with interviews of those affected by the law.

Research Press
Box 317790
Champaign, Illinois 61820

Module One

Pretest

DIRECTIONS: The purpose of this test is to determine how much knowledge you have concerning specific information on physical education programming for the handicapped. Answer the questions as fully as possible.

1. Define special physical education; explain its aim and its three major areas of concern.
2. Identify and define the four categories of exceptionality.
3. Define the words "handicapped" and "exceptional."
4. Indicate the approximate incidences (percentage) of handicapping conditions among the school-age population in the United States and the estimated percentage for the four major prevalent types.
5. List and explain the three major federal laws related to the handicapped; include the number and name of the law, the year it was enacted, the age of the population each addresses, and the implications of each for the physical educators in programming for the handicapped.
6. Define the term "mainstreaming" and indicate four advantages for mainstreaming in physical education.
7. Identify the components of an IEP and discuss each required component in relationship to physical education and the role of the physical educator in the IEP process.
8. Identify and describe the three basic types of testing techniques used in developing the IEP.
9. List and describe two assessment instruments for each of the following three areas: physical fitness, motor fitness, and fundamental motor skills and patterns.
10. List and explain the four concepts incorporated in an instructional objective.

11. List and explain four organizational structures that should be considered in planning to provide for students with varying degrees of handicapping conditions.
12. Identify and explain four instructional strategies that can be used when teaching physical education to handicapped students.

Module One

Posttest

Part I. True and False (30 pts.)

Directions: Read each following statement carefully. If it is correct, place a T in the blank to the left of it. If it is incorrect, place an F in the blank and explain why it is false; your explanation should include the correct answer.

Each true statement is worth two points; each false statement is worth one point; and each correct explanation of a false statement is worth two points.

- ___ 1. Public Law 89-10 deals with education, social service, and employment.

- ___ 2. Public Law 89-10 deals primarily with the rights of handicapped students.

- ___ 3. The Rehabilitation Act was the first federal law related to programming for the handicapped.

- ___ 4. Section 504 of the Rehabilitation Act forbids discrimination against the handicapped in federally funded programs.

- ___ 5. Least restricted environment and mainstreaming both imply placement in the regular classroom environment.

- ___ 6. Mainstreaming is encouraged but not mandated by law.
-
-
- ___ 7. Federal law identifies obesity as a handicapping condition.
-
-
- ___ 8. It is estimated that twelve percent of the school-age population is handicapped.
-
-
- ___ 9. Mental retardation is defined as significant sub-average general intellectual functions and inappropriate or absent adaptive behaviors which inhibit learning.
-
-
- ___ 10. Approximately six percent of the school-age population is mentally retarded.
-
-
- ___ 11. In a dual class structure, handicapped students are integrated with other students on a part-time basis.
-
-
- ___ 12. Two percent of the school-age children are classified as being emotionally disturbed.
-
-

Module One

Posttest

Part II. Multiple-Choice (30 pts.)

Directions: Read each item carefully and write in the blank the letter indicating the one correct phrase.

- ___ 1. An I.E.P. contains a
 - a. statement of current level of ability.
 - b. precise identification of key skills to be learned.
 - c. specific programming suggestions.
 - d. all of the above.

- ___ 2. A written physical education I.E.P. is required for
 - a. an obese child in an adapted physical education class.
 - b. an emotionally disturbed child in a regular physical education class.
 - c. a physically handicapped child in an adapted physical education class.
 - d. all of the above.

- ___ 3. Modification of content refers to
 - a. a technique which allows the student to set his or her own learning pace.
 - b. a technique of individual instruction based on the amount of time an instructor must spend with a student.
 - c. a technique of individualized instruction designed to accommodate each student's needs.

- ___ 4. The flexible-model plan is characterized by
 - a. changing the instructional environment to meet the needs and abilities of the handicapped student whenever such a change is indicated.
 - b. integrating and combining handicapped and non-handicapped students.
 - c. segregating handicapped students.
 - d. none of the above.

- _____ 5. An assessment technique that involves a comparison with other students is
- an interpret-referenced test.
 - a norm-referenced test.
 - a content-referenced test.
 - none of the above.
- _____ 6. A content-referenced test involves
- development by experts.
 - field testing.
 - group norms.
 - none of the above.
- _____ 7. The term "barrier-free facilities" implies
- optimal, open space.
 - usability.
 - safety.
 - accessibility.
- _____ 8. A major factor in purchasing or constructing equipment is
- cost.
 - attractiveness.
 - safety.
 - none of the above.
- _____ 9. The aim of adapted physical education is
- to help students make social adjustments and develop a feeling of self-worth and value.
 - to help students correct conditions that can be improved.
 - to aid the handicapped to achieve physical, mental, emotional, and social growth.
 - to help the handicapped students protect themselves and any condition that would be aggravated through certain physical activities.
- _____ 10. Special physical education provides three major types of programs:
- restrictive, non-restrictive, and developmental.
 - corrective, adaptive, and non-restrictive.
 - adaptive, corrective, and developmental.
 - non-restrictive, adaptive, and corrective.

Module One**Posttest****Part III. Essay Question (40 pts.)**

In an essay briefly

1. summarize P.L. 94-142.
2. explain its principal requirements and purpose.
3. give a justification for the law.
4. explain its implications for physical education.
5. explain its implications for physical education in terms of skills, knowledge, accountability.

Module Two
Mental Retardation

The purpose of Module Two is to aid you in acquiring knowledge concerning mental retardation as it relates to physical education programming for the handicapped. When you complete this module, you should have acquired the following en route competencies stated below as behavioral objectives:

1. To define mental retardation including the psychological and educational classifications within mental retardation.
2. To discuss specific causes of mental retardation.
3. To describe the general motor characteristics that identify the educable and trainable mentally retarded.
4. To state the estimated prevalence of the number of retarded children born each year within the United States and the approximate percentage of mentally retarded individuals among the school-age population.
5. To identify and describe the various assessment instruments used to evaluate the performance level of the mentally retarded.
6. To describe and discuss instructional strategies applicable to teaching physical education to pupils who are mentally retarded.
7. To list and describe specific physical education activities which should be offered to serve the needs of pupils who are educable and trainable.

Module Two
Outline of Content

- I. General Information on Mental Retardation
 - A. A Definition of Mental Retardation
 - 1. Crowe, et al., pp. 370-371.
 - 2. Fait, p. 215.
 - 3. French, et al., p. 129.
 - 4. Kalakian, et al., p. 336.
 - B. Classification of Mental Retardation
 - 1. Crowe, et al., p. 374.
 - 2. Fait, pp. 216-217.
 - 3. French, et al., p. 129.
 - 4. Kalakian, et al., pp. 37-38.
 - C. Causes of Mental Retardation
 - 1. Crowe, et al., p. 374.
 - 2. Fait, pp. 218-219.
 - 3. French, et al., pp. 131-132.
 - 4. Kalakian, et al., p. 340.
 - D. Characteristics of Mental Retardation
 - 1. Crowe, et al., p. 378.
 - 2. Fait, pp. 220-222.
 - 3. French, et al., pp. 134-139.
 - 4. Kalakian, et al., pp. 338-339.
- II. Mental Retardation and Physical Education Programming
 - A. Prevalence of Those Born Each Year Within the United States, and Prevalence of Those Among the School-age Population
 - 1. Crowe, et al., pp. 18-19.
 - 2. Fait, pp. 217-218.
 - 3. French, et al., pp. 133-134.
 - 4. Kalakian, et al., p. 339.
 - B. Assessment Instruments Used to Evaluate the Mentally Retarded
 - 1. Crowe, et al., pp. 375-376.
 - 2. Fait, pp. 228-229.
 - 3. French, et al., pp. 140-144.
 - 4. Kalakian, et al., pp. 350-360.

- C. **Instructional Strategies Used with the Mentally Retarded**
 - 1. Crowe, et al., pp. 378-379.
 - 2. Fait, pp. 224-226.
 - 3. French, et al., pp. 134-140.
 - 4. Kalakian, et al., pp. 349-350.

- D. **Appropriate Physical Education Activities for the Mentally Retarded**
 - 1. Crowe, et al., pp. 377-383.
 - 2. Fait, pp. 227-234.
 - 3. Kalakian, et al., p. 350.

Key Terms

1. Adaptive Behavior
2. Affective
3. American Association on Mental Deficiency (AMMD)
4. Chronological Age (CA)
5. Cognitive
6. Developmental Age (DA)
7. Developmental Period
8. Down Syndrome
9. Hydrocephalus
10. Idiopathic
11. Intellectual Quotient
12. Interpret-referenced Tests
13. Joseph P. Kennedy, Jr., Foundation
14. Mental Age (MA)
15. Mental Retardation
16. Mentally Handicapped
17. Microcephalus
18. Mild Mental Retardation
19. Moderate Mental Retardation
20. Phenylketonuria (PKU)
21. Postnatal Period
22. Prenatal Period
23. Profound Mental Retardation
24. Psychomotor
25. Rh Factor
26. Rubella (German Measles)
27. Severe Mental Retardation
28. Stanford Binet Scale of Intelligence
29. Sub-average
30. Wechsler Intelligence Scale for Children

Module Two

Study Questions

1. List and explain the three criteria established by the American Association on Mental Retardation for defining mental retardation.
2. Define and explain the psychological classifications of mental retardation.
3. Compare and contrast the capabilities of the educable with that of the trainable.
4. List and explain the ten causes of mental retardation identified by the American Association on Mental Retardation.
5. List the developmental stages to which one-fourth of all identified causes of mental retardation can be attributed.
6. Compare and contrast the motor characteristics of the educable with those of the trainable.
7. Estimate the total number of mentally retarded born each year and give the percentage of retarded within the school-age population.
8. List and define the components of physical proficiency and motor proficiency.
9. Give another name for physical proficiency.
10. Name two motor proficiency activities for each motor proficiency component.
11. Name two physical proficiency activities for each physical proficiency component.
12. Name the three general categories of fundamental motor skills and give examples of two specific skills under each.
13. List the "Items" and corresponding "Component(s) Measured" for the "Special Fitness Test for Mildly Retarded Persons."

14. Describe the "Motor Fitness Test for the Moderately Retarded."
15. Describe ways of utilizing assessment results to develop IEP's for the mentally retarded population.
16. Describe ten varied instructional strategies from various sources which are effective in teaching physical education to the mentally retarded.

/

Assignments for Module Two

1. A posttest covering class activities, study questions, and key terms.
2. A summary of two articles on physical education programming for the mentally retarded from two separate scholarly journals.
3. A report on an article on physical education programming for the mentally retarded taken from a scholarly journal. This should be an additional article and not one of the ones which you are to summarize.

REFERENCES FOR STUDENTS AND THE INSTRUCTOR

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- Folkard, Simon. "Expectancy in Educable Subnormal Children and Their Normal Mental Age Controls." Quarterly Journal of Experimental Psychology, 26 (August 1974), 495-502.
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INSTRUCTOR'S ADDENDUM

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Suggested Class Activities for Module Two Reports

1. Have students give reports from scholarly journals on articles involving physical education programming for the mentally retarded.
2. Audio-visual Aids. Following are films which may enhance the study of Module Two by acting as introduction to a relevant topic or by generating classroom discussion.

(a) Circuit Training - 16mm, 21 min., color

Focus: Functional ways are explained for teachers to set up regular classrooms for circuit training with specific means to adapt programs for students who are mentally retarded.

From: United Association for Retarded Citizens
225 East Milwaukee
Milwaukee, Wisconsin 53202

(b) Families Play to Grow - 69 slides/sound tape, 15 min., color

Focus: A slide/tape presentation which describes a program for the mentally retarded which focuses on physical activities and recreation.

From: National Recreation and Park Association
Academic Support Center
Film Library
505 East Stewart Road
Columbia, Missouri 65211

(c) Just for the Fun of It - 16mm, 18½ min., color

Focus: A series of developmentally sequenced physical activities are presented for children who are mentally retarded.

From: University of Connecticut
Center for Instructional Media and
Technology
Storrs, Connecticut 06268

Module Two**Pretest**

DIRECTIONS: The purpose of this test is to determine how much knowledge you have concerning physical education programming for the mentally retarded. Answer the questions as fully as possible.

1. Define and explain mental retardation according to the three criteria established by the American Association on Mental Retardation.
2. Identify and define the psychological and educational classifications of mental retardation.
3. List and explain six of the ten causes of mental retardation identified by the American Association on Mental Retardation.
4. Describe the general motor characteristics of those mentally retarded who are educable and of those who are trainable.
5. Estimate the number of the total population of the United States who is retarded. What percentage is in the school-age population?
6. Define and explain physical and motor proficiencies in terms of their basic components.
7. Name and describe two assessment instruments for evaluating the motor skills and/or physical fitness of the mildly retarded and of the moderately retarded.
8. List and describe five instructional strategies which are effective in teaching physical education to the mentally retarded.
9. List and describe five physical education activities in which both the educable and trainable can participate.

10. Define the following terms:

1. Affective
2. Chronological Age (CA)
3. Cognitive
4. Developmental Age
5. Hydrocephalus
6. Mental Age (MA)
7. Microcephalus
8. Psychomotor
9. Stanford Binet Scale of Intelligence
10. Wechsler Intelligence Scale for Children

Module Two

Posttest

Part I. Completion (40 pts.)

Directions: Complete the following statements by providing the most appropriate words or phrases.

1. The three criteria which the American Association on Mental Deficiency use to identify mental retardation are _____, _____ and _____.
2. The most popular IQ tests are _____ and _____.
3. The psychological classifications for the mentally retarded are _____, _____, _____, and _____.
4. The educational classifications for the mentally retarded are _____ and _____.
5. Four causes for mental retardation are _____, _____, _____, and _____.
6. Mentally retarded students are usually _____ to _____ years behind normal students in physical fitness.
7. Some physical fitness areas in which these students fall behind are _____, _____, _____, and _____.
8. There are approximately _____ mentally retarded people in the United States with _____ percent in the school-age population.
9. Four items in the Special Fitness Test for Mildly Retarded Persons are _____, _____, _____, and _____.
10. Four instructional strategies used for teaching physical education to the mildly retarded are _____, _____, _____, and _____.
11. Four objectives of physical education programming for the mentally retarded are:
 - 1.
 - 2.
 - 3.
 - 4.

12. Four guidelines in selecting physical education activities for the mentally retarded are:

- 1.
- 2.
- 3.
- 4.

Module Two

Posttest

Part II. True and False (40 pts.)

Directions: Read each following statement carefully. If it is correct, place a T in the blank to the left of it. If it is incorrect, place an F in the blank and explain why it is false; your explanation should include the correct answer.

Each true statement is worth two points; each false statement is worth one point; and each correct explanation of a false statement is worth two points.

___ 1. Mental retardation is best described as a disease.

___ 2. Today there are approximately 3 million mentally retarded persons in the United States.

___ 3. Within the mentally retarded population, approximately 89 percent are mildly retarded.

___ 4. Educational Classification for the retarded is educable.

___ 5. Approximately 60 percent of the causes of mental retardation can be readily determined.

-
- _____ 6. In spite of their underachievement, the mentally retarded individuals are nearer the norm physically than mentally.
-
-
- _____ 7. The Rh factor as it relates to the causes of mental retardation involves drug abuse.
-
-
- _____ 8. Adaptive behavior allows a person to modify his actions to accommodate his environment.
-
-
- _____ 9. Cognitive development is directly related to chronological age.
-
-
- _____ 10. Those children with IQ scores ranging from 50 to 80 are classified as trainable.
-
-
- _____ 11. Approximately 20 percent of physical education programming for mildly and moderately retarded should be devoted to gross motor coordination activities.
-
-
- _____ 12. Mentally retarded children should be integrated with their peers if at all possible in regular physical education classes.
-
-

Module Two

Posttest

Part III. Essay (30 pts.)

DIRECTIONS: Utilizing the Motor Fitness Test for the Moderately Retarded, explain how that test can be used in developing an IEP. Give a brief description of the test, and give your explanation in terms of each individual component of the IEP.

Module Three
Emotional Disturbances

The purpose of Module Three is to aid you in acquiring knowledge concerning emotional disturbances as they relate to physical education programming for the handicapped. When you complete this module, you should have acquired the following en route competencies stated as behavioral objectives.

1. To define emotional disturbances according to Public Law 94-142.
2. To define and describe various types of emotional disturbances.
3. To discuss the cause and scope of emotional disorders.
4. To describe the common characteristics of emotional disturbances.
5. To identify and describe various assessment instruments used to evaluate the performance level of the emotionally disturbed.
6. To describe and discuss behavioral management techniques in physical education programming for the emotionally disturbed.
7. To describe and discuss instructional strategies applicable to teaching physical education to pupils who are emotionally disturbed.
8. To list and describe specific physical education activities which should be offered to serve the needs of pupils who are emotionally disturbed.

Module Three
Outline of Content

- I. General Information on Emotional Disturbances
 - A. Definition of Emotional Disturbance
 - 1. Crowe, et al., pp. 389-390.
 - 2. Fait, p. 255.
 - 3. French, et al., p. 149.
 - 4. Kalakian, et al., p. 362.
 - B. Classification of Emotional Disturbances
 - 1. Crowe, et al., pp. 394-395.
 - 2. Fait, p. 256.
 - 3. Kalakian, et al., pp. 363-366.
 - C. Causes of Emotional Disturbances
 - 1. Crowe, et al., p. 393.
 - 2. Fait, pp. 259-260.
 - 3. French, et al., pp. 152-153.
 - D. Characteristics of Emotional Disturbances
 - 1. Crowe, et al., pp. 390-391.
 - 2. French, et al., p. 153.
 - 3. Kalakian, et al., pp. 365-366.
- II. Emotional Disturbances and Physical Education Programming
 - A. Prevalence of Those Among the School-age Population
 - 1. Crowe, et al., p. 19.
 - 2. Fait, pp. 262-263.
 - 3. French, et al., p. 152.
 - B. Assessment Instruments Used to Evaluate the Emotionally Disturbed
 - 1. French, et al., pp. 158-159.
 - C. Instructional Strategies Used with the Emotionally Disturbed
 - 1. Crowe, et al., pp. 395-400.
 - 2. French, et al., pp. 153-160.
 - 3. Kalakian, et al., p. 365.

- D. **Appropriate Physical Education Activities
for the Emotionally Disturbed**
1. Crowe, et al., pp. 404-405.
 2. French, et al., pp. 161-162.
 3. Kalakian, et al.

Key Terms

1. Aggression
2. Anxiety
3. Autistic
4. Behavior Modification
5. Body Image
6. Catatonic
7. Depression
8. Emotional Disorders
9. Hebephrenic
10. Hyperactive
11. Juvenile Delinquent
12. Mental Illness
13. Neuroses
14. Paranoid
15. Psychotic
16. Self-concept
17. Schizophrenic
18. Social Maladjustment

Module Three

Study Questions

1. Define and explain emotional disturbance according to P.L. 94-142.
2. Identify and explain the categories of emotional disturbance.
3. Compare and contrast neuroses and psychoses.
4. List three characteristics of neurotic behavior and three characteristics of psychotic behavior.
5. List and explain the primary causes of emotional disturbances.
6. Describe the characteristics which may interfere with the learning of an emotionally disturbed child.
7. Describe behavior which may be indicative of an emotionally disturbed child.
8. List and explain categories of behavior which may be of use in identifying an emotionally disturbed child.
9. List the principles of and strategies for teaching the emotionally disturbed child.
10. List and explain the objectives of a physical education program for emotionally disturbed children.
11. List the possible arrangements in which emotionally disturbed children may be taught.
12. Discuss the teaching of the emotionally disturbed in relationship to the concept of "the least restrictive environment."
13. List and explain guidelines for intervention in controlling classroom behavior.
14. List and explain techniques for classroom management of emotionally disturbed children.
15. Describe "applied behavior technology" and "the planned experience approach."

16. List and explain the nine learning principles for conducting instruction.
17. List and explain the principles used in preparing learning experiences.
18. Explain the concept of the "comprehensive coordinated program as it relates to the implementation of P.L. 94-142."
19. Describe the general physical and motor fitness of the emotionally disturbed child.
20. List those activities which would most appropriately fit into a physical education program for the emotionally disturbed.
21. List the components of a basic motor fitness test.
22. Explain the chief factor(s) in determining the types of activities to be included in a physical education program for the emotionally disturbed.

Assignments for Module Three

1. A posttest covering class activities, study questions, and key terms.
2. A visit to Cumberland House, a facility for emotionally disturbed, school-age children.
3. Written report on the visitation.
4. A summary of an article on physical education programming for the emotionally disturbed taken from a scholarly journal.

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INSTRUCTOR'S ADDENDUM

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Suggested Class Activities for Module Three Reports

1. Field Trip. A field trip to a facility for the emotionally disturbed would make discussion and study more meaningful.
2. Resource Person. A presentation by someone who works with emotionally disturbed children would aid the study of this module.
3. Audio-visual Aids. Following are films which may enhance the study of Module Three by acting as introduction to a relevant topic or by generating classroom discussion.

(a) Anyone Can - 16mm, 27 min., color

Focus: Activities to teach rope handling skills, ball handling skills, and stegal and trampoline activities to emotionally disturbed students.

From: Indiana University
Audio-Visual Center
Bloomington, Indiana 47405

(b) No Two of These Kids Are Alike - 16mm, 28 min.

National Audio-Visual Center
National Archives and Records Service
General Services Administration
Order Section DA
Washington, D.C. 20409

(c) The Aggressive Child - 16mm, black/white, 30 min.

Contemporary Films
McGraw-Hill
330 West 42nd Street
New York, New York 10036

Module Three

Pretest

DIRECTIONS: The purpose of this test is to determine how much knowledge you have concerning physical education programming for the emotionally disturbed. Answer the questions as fully as possible.

1. Define and explain emotional disturbance.
2. Name three categories of emotional disturbances.
3. Name three disorders under one of the three categories named above.
4. List and explain four causes for emotional disturbance.
5. Describe four major characteristics of the emotionally disturbed student.
6. Estimate the percentage of emotionally disturbed students within the school-age population.
7. Name and describe two assessment instruments for evaluation of emotionally disturbed students.
8. List and describe five instructional strategies which are effective in teaching emotionally disturbed students.
9. Describe four activities for hyperactive students and four for autistic students.
10. Define the following terms:
 1. Autistic
 2. Catatonic
 3. Body Image
 4. Hyperactive
 5. Mental Illness
 6. Neurosis
 7. Paranoid
 8. Psychosis
 9. Self-concept
 10. Social Maladjustment

Module Three**Posttest****Part I. Completion (40 pts.)**

Directions: Complete the following statements by providing the most appropriate words or phrases.

1. The categories of emotional disturbance are _____, _____, and _____.
2. Three characteristics of neurotic behavior are:
 - 1.
 - 2.
 - 3.
3. Three characteristics of psychotic behavior are:
 - 1.
 - 2.
 - 3.
4. The primary causes of emotional disturbances are:
 - 1.
 - 2.
 - 3.
5. Three behaviors which may be indicative of an emotionally disturbed child are:
 - 1.
 - 2.
 - 3.

6. Four objectives of a physical education program for emotionally disturbed children are:
 - 1.
 - 2.
 - 3.
 - 4.
7. Three guidelines for intervention in controlling classroom behavior are:
 - 1.
 - 2.
 - 3.
8. Four learning principles for conducting instruction for emotionally disturbed children are:
 - 1.
 - 2.
 - 3.
 - 4.
9. Three activities which would most appropriately fit into a physical education program for an emotionally disturbed child are:
 - 1.
 - 2.
 - 3.
10. Five components of a level-two basic motor-fitness test are:
 - 1.
 - 2.
 - 3.

- 4.
- 5.
11. Three characteristics which may interfere with the learning of an emotionally disturbed child are:
 - 1.
 - 2.
 - 3.
12. A teacher may use physical restraint when a child is a danger to _____, _____, and/or _____.

Module Three

Posttest

Part II. True and False (30 pts.)

Directions: Read each following statement carefully. If it is correct, place a T in the blank to the left of it. If it is incorrect, place an F in the blank and explain why it is false; your explanation should include the correct answer.

Each true statement is worth two points; each false statement is worth one point; and each correct explanation of a false statement is worth two points.

- ___ 1. Neurosis includes phobic conditions, obsessive ideas, and compulsive rituals.

- ___ 2. Autism refers to a condition in young children which can be described as either psychotic or neurotic.

- ___ 3. Psychosis is a mild form of neurosis.

- ___ 4. Approximately 2 percent of the school-age population is considered emotionally disturbed.

- ___ 5. More females than males are characterized as emotionally disordered.

- _____ 6. The most significant characteristic of an individual with an emotional disorder is an inability to cope.
-
-
- _____ 7. Schizophrenia is the most common psychosis.
-
-
- _____ 8. Children with emotional disorders have a wide range of motor and fitness functions.
-
-
- _____ 9. Aquaphobia is fear of altitude.
-
-
- _____ 10. Individuals who are emotionally disordered are recognized as having the most mysterious and unsettling type of handicapping condition.
-
-
- _____ 11. All students with emotional disorders should be placed in the same class.
-
-
- _____ 12. Students who are severely emotionally disordered can effectively learn swimming techniques in a group.
-
-

Module Three

Posttest

Part III. Essay (30 pts.)

DIRECTIONS: In an essay (1) define and explain emotional disturbance as it relates to P.L. 94-142 and (2) describe six teaching strategies which may be used to accommodate emotionally disturbed children.

Module Four
Sensory Impairment

The purpose of Module Four is to aid you in acquiring knowledge concerning visual and auditory impairments as they relate to physical education programming for the handicapped. When you complete this module, you should have acquired the following en route competencies stated below as behavioral objectives:

1. To define visual impairment based on both legal and educational criteria.
2. To define auditory impairment based on both legal and educational criteria.
3. To discuss specific causes of visual impairment.
4. To discuss specific causes of auditory impairment.
5. To identify ways of classifying visual impairment.
6. To identify and describe the categories of deafness.
7. To state the estimated prevalence of visually impaired among the elementary and high school population.
8. To state the estimated prevalence of auditory impairment among the school-age population.
9. To identify and describe the various assessment instruments used to evaluate visual disorders.
10. To identify and describe the various assessment instruments used to evaluate auditory disorders.
11. To describe and discuss instructional strategies to teach physical education to the visually impaired.

12. To describe and discuss instructional strategies to teach physical education to the hearing impaired.
13. To list and describe specific physical education activities which should be offered to serve the needs of students who are visually impaired.
14. To list and describe specific physical education activities which should be offered to serve the needs of students who have hearing impairments.

Module Four
Outline of Content

- I. Visually Impaired
 - A. Definition
 - 1. Crowe, et al., p. 347.
 - 2. Fait, p. 144.
 - 3. French, et al., p. 199.
 - B. Causes
 - 1. Crowe, et al., pp. 348-349.
 - 2. Fait, p. 145.
 - 3. French, et al., pp. 199-200.
 - C. Classification
 - 1. Crowe, et al., pp. 350-351.
 - 2. Fait, p. 146.
 - 3. French, et al., p. 188.
 - D. Assessment
 - 1. Crowe, et al., pp. 195-197.
 - 2. Fait, p. 147.
 - 3. French, et al., pp. 208-209.
 - E. Instructional Strategies
 - 1. Crowe, et al., pp. 354-355.
 - 2. Fait, p. 148.
 - 3. French, et al., pp. 203-208.
 - F. Activities
 - 1. Crowe, et al., pp. 355-358.
 - 2. Fait, pp. 148-155.
 - 3. French, et al., pp. 208-214.
- II. Hearing Impaired
 - A. Definition
 - 1. Crowe, et al., p. 359.
 - 2. French, et al., p. 185.
 - 3. Kalakian, et al., p. 111.
 - B. Clauses
 - 1. Crowe, et al., p. 360.
 - 2. Fait, pp. 155-156.
 - 3. French, et al., pp. 187-188.

- C. **Classification**
 - 1. Crowe, et al., p. 365.
 - 2. Fait, pp. 156-157.
 - 3. French, et al., pp. 185-186.
- D. **Assessment**
 - 1. Crowe, et al., pp. 367-368.
 - 2. French, et al., pp. 195-197.
- E. **Instructional Strategies**
 - 1. Crowe, et al., pp. 363-366.
 - 2. French, et al., pp. 188-194.
 - 3. Kalakian, et al., p. 123.
- F. **Activities**
 - 1. Crowe, et al., pp. 367-368.
 - 2. Fait, pp. 160-162.
 - 3. French, et al., pp. 194-197.

Key Terms

1. Acquired (adventitious)
2. American Sign Language (ASL)
3. Astigmatism
4. Auralism
5. Blind
6. Cataracts
7. Central Hearing Loss
8. Conductive Hearing Loss
9. Congenital
10. Deaf
11. Deafisms
12. Decibel (dB)
13. Hard of Hearing
14. Heterophoria
15. Hyperopia
16. Legal Blindness
17. Light Perception
18. Manualism
19. Oculist
20. Ophthalmologist
21. Optometrists
22. Optician
23. Oralism
24. Orientation and Mobility Training (O&M)
25. Orthopedist
26. Otologist
27. Partially Sighted
28. Psychogenic
29. Snellen Test
30. Total Blindness
31. Travel Motion
32. Visual Impairment
33. Visually Handicapped

Module Four
Study Questions

1. How is visual impairment defined by law?
2. Give the causes of visual impairment.
3. Give the characteristics of visual impairment.
4. Define auditory impairment, and give the categories of auditory impairment.
5. Give the classifications of hearing impairment.
6. Give the casual factors of auditory impairment.
7. Describe the behavioral characteristics of the visually impaired and of the hearing impaired.
8. Give the estimated prevalence of visually impaired among the general population and in the school-age population.
9. Give the estimated prevalence of hearing impaired among the general population and among the school-age population.
10. Identify and describe instruments used to assess visual impairments.
11. Identify and describe instruments used to assess auditory impairment.
12. Describe the motor characteristics of the visually impaired.
13. Describe appropriate teaching strategies in physical education programming for the visually impaired.
14. Describe appropriate teaching techniques for physical education programming for the handicapped.
15. Identify and describe suggested activities for the visually impaired and for the hearing impaired.

Assignments for Module Four

1. A posttest covering class activities, study questions, and key terms.
2. Class reports on modifying physical activities to accommodate students with visual impairments.
3. A summary of two articles from two separate, scholarly journals, one on methods and one on activities in physical education programming for the visually and hearing impaired.

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- Buell, Charles. "Physical Education for Visually Handicapped Children." Journal of Health, Physical Education and Recreation, 42, No. 4 (April 1974), 63-64.
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INSTRUCTOR'S ADDENDUM

INSTRUCTOR'S ADDENDUM

Suggested Class Activities for Module Four Reports

1. Resource persons. It is suggested that a resource person be used with this module, someone who works with the visually or hearing impaired or a person who has one of these impairments.
2. Reports. Oral reports on modifying specific physical activities to accommodate the visually or hearing impaired accompanied by demonstrations would be useful and meaningful learning experiences.
3. Audio-visual Aids. Following are films which would enhance the study of this module.
 - (a) A Matter of Inconvenience - 16mm, 10 min., color
Focus: A group of skiers who are blind or have an amputation demonstrate their independence on the ski slopes.
From: The Governor's Office for Human Resources
504 State Street Building
Harrisburg, Pennsylvania 17101
 - (b) My Friends Call Me Tony - 16mm, 12 min., color
Focus: Tony has been blind since he had a tumor removed when he was three years old. Now ten years old, he is learning to live a fulfilling life. This film shows Tony participating in activities such as camping and playing hockey.
From: Kent State University
Audio Visual Services
330 Library Building
Kent, Ohio 44242
 - (c) Out of Left Field - 16mm, 7 min., color
Focus: A panel of experts explore the question of integrating youth who are blind into sighted physical activities and recreation groups. Youngsters who are blind are depicted in recreational activities with their sighted peers.

From: American Foundation for the Blind, Inc.
15 West 16th Street
New York, New York 10011

(d) Children of the Silent Night - 30 min., color

From: Syracuse University
Film Rental Center
1455 East Colvin Street
Syracuse, New York 13210

(e) Silent World, Muffled World - 16mm, 28 min., color

From: Special Education Instructional
Materials Center (SEIMC)
State Education Department
Division for Handicapped Children
55 Elk Street
Albany, New York 12234

(f) Tenth International Games for the Deaf - 16mm,
40 min., color

Focus: This film shows contestants who are deaf
participating in sports.

From: Monumental Films and Recordings
2203 Maryland Avenue
Baltimore, Maryland 21218

Module Four

Pretest

DIRECTIONS: The purpose of this test is to determine how much knowledge you have concerning specific information on sensory impairment as it relates to physical education programming. Answer each question as fully as possible.

1. Define and explain visual impairment based on both legal and educational criteria.
2. Define and explain auditory impairment.
3. Identify and discuss four causes of visual impairment.
4. Identify and discuss four causes of auditory impairment.
5. List and explain four ways of classifying visual impairment.
6. List and describe four categories of deafness.
7. Give the estimated percentage of the visually impaired among the elementary and high school population.
8. Give the estimated percentage of hearing impaired among the school-age population.
9. List and describe four assessment instruments used to evaluate visual disorders.
10. List and describe four assessment instruments used to evaluate auditory disorders.
11. List and describe five instructional strategies which are effective in teaching physical education to the visually impaired.
12. List and describe five instructional strategies which are effective in teaching physical education to the hearing impaired.
13. List and describe five physical education activities in which the visually impaired can participate.

14. List and describe five physical education activities in which the hearing impaired can participate.
15. Define the following terms:
 1. ASL
 2. Central Hearing Loss
 3. Conductive Hearing Loss
 4. O & M
 5. Otologist
 6. Cataracts
 7. Oculist
 8. Partially Sighted
 9. Snellen Test
 10. Travel Motion

Module Four

Posttest

Part I. Completion (30 pts.)

Directions: Fill in the blank with the word or phrase which most appropriately completes the statement.

1. The degrees of visual impairment are _____, _____, and _____.
2. Three causes of visual impairment are _____, _____, and _____.
3. Three behavioral characteristics of the visually impaired are:
 - 1.
 - 2.
 - 3.
4. Three motor characteristics of the visually impaired are:
 - 1.
 - 2.
 - 3.
5. Four teaching strategies used with the visually impaired are:
 - 1.
 - 2.
 - 3.
 - 4.
6. Two perception-motor and sensory development activities for the visually impaired are _____ and _____.
7. Two tools for assessing the visually impaired are _____ and _____.

8. A _____ person is one for whom the sense of hearing is nonfunctional for the ordinary purposes of life.
9. A _____ person is one for whom the sense of hearing, although deficient, is functional with or without a hearing aid.
10. Three ways of classifying hearing impairments are _____, _____, and _____.
11. Casual factors of hearing impairment are _____ and _____.
12. Three strategies for teaching the hearing impaired are:
 - 1.
 - 2.
 - 3.

Module Four

Posttest

Part II. True and False (30 pts.)

Directions: Read each following statement carefully. If it is correct, place a T in the blank to the left of it. If it is incorrect, place an F in the blank and explain why it is false; your explanation should include the correct answer.

- ___ 1. Legal blindness is the ability to see no better than 20/70 in the best eye with correction.

- ___ 2. One out of every one thousand in the school-age population has visual impairments.

- ___ 3. Rubella is a hereditary cause of visual impairment.

- ___ 4. The blind have problems with motor skills which require running, throwing, and dynamic balance.

- ___ 5. Frostig Developmental Test of Visual Perception measures eye-hand coordination and figure-ground discrimination.

-
- ___ 6. The AAHPER Youth Fitness Test measures figure-ground and visual memory.
-
-
- ___ 7. Approximately ten out of every one thousand school-age children possess an auditory handicap.
-
-
- ___ 8. The motor skill area which is often deficient in pupils with hearing impairments is speed.
-
-
- ___ 9. The key problem in teaching the hearing impaired is communication.
-
-
- ___ 10. The four types of hearing loss commonly cited include conductive, sensorineural, central, and pathogenic.
-
-
- ___ 11. Hearing impairments can often be traced to specific genetic or environmental causes.
-
-
- ___ 12. The middle ear is the site of most conductive hearing losses.
-
-

Module Four**Posttest****Part III. Essay (40 pts.)**

DIRECTIONS: Design a program of physical activities for a child with visual impairment and one for a child with auditory impairment. For each program indicate the activity and the necessary modification for the child to participate in a mainstreaming situation.

Module Five

Neurological and Muscular Handicaps

The purpose of Module Five is to aid you in acquiring knowledge concerning neurological and muscular handicaps as they relate to physical education programming for the handicapped. When you complete this module, you should have acquired the following en route competencies stated below as behavioral objectives:

En Route Competencies

1. To identify and define specific neurological and muscular handicaps.
3. To identify and describe the classifications and/or the characteristics of specified neurological and muscular handicaps.
4. To describe the degree of physical and/or motor fitness associated with specific neurological and muscular handicaps.
5. To describe and discuss appropriate instructional strategies for specific neurological and muscular handicaps.
6. To list and describe physical activities appropriate to children with specific neurological and muscular handicaps.

Module Five
Outline of Content

- I. Seizure Disorders
 - A. Definition
 - 1. Crowe, et al., p. 339.
 - 2. French, et al., p. 215.
 - 3. Kalakian, et al., p. 260.
 - B. Causes
 - 1. Crowe, et al., p. 340.
 - 2. French, et al., p. 216.
 - 3. Kalakian, et al., p. 260.
 - C. Characteristics and Classifications
 - 1. Crowe, et al., pp. 341-343.
 - 2. Kalakian, et al., pp. 260-261.
 - D. Assessment
 - 1. French, et al., p. 218.
 - 2. Kalakian, et al., p. 271.
 - E. Instructional Strategies
 - 1. Crowe, et al., pp. 343-344.
 - 2. French, et al., pp. 217-218.
 - 3. Kalakian, et al., pp. 268-269.
 - F. Activities
 - 1. Crowe, et al., pp. 345-346.
 - 2. French, et al., p. 219.
 - 3. Kalakian, et al., pp. 270-271.
- II. Cerebral Palsy
 - A. Definition
 - 1. Crowe, et al., p. 331.
 - 2. Fait, p. 124.
 - 3. French, et al., p. 219.
 - B. Causes
 - 1. Crowe, et al., p. 331.
 - 2. Fait, p. 124.
 - 3. Kalakian, et al., p. 275.
 - C. Characteristic and Classification
 - 1. Crowe, et al., pp. 332-333.
 - 2. Fait, pp. 125-127.
 - 3. French, et al., pp. 220-221.

- D. **Assessment**
 - 1. French, et al., pp. 224-226.
 - 2. Kalakian, et al., pp. 284-295.
- E. **Instructional Strategies**
 - 1. Crowe, et al., pp. 336-337.
 - 2. Fait, p. 131.
 - 3. French, et al., pp. 222-223.
- F. **Activities**
 - 1. Crowe, et al., pp. 337-339.
 - 2. Fait, p. 133.
 - 3. French, et al., pp. 223-224.
 - 4. Kalakian, et al., pp. 295-307.

III. Spina Bifida

- A. **Definition**
 - 1. Crowe, et al., p. 303.
 - 2. French, et al., p. 227.
- B. **Causes**
 - 1. Crowe, et al., p. 303.
 - 2. French, et al., pp. 227-228.
- C. **Characteristic and Classification**
 - 1. Crowe, et al., p. 303.
 - 2. French, et al., p. 228.
- D. **Assessment**
 - 1. French, et al., pp. 229-230.
- E. **Instructional Strategies**
 - 1. Crowe, et al., pp. 303-304.
 - 2. French, et al., pp. 228-230.
- F. **Activities**
 - 1. Crowe, et al., pp. 304-306.
 - 2. French, et al., pp. 229-230.
 - 3. Fait, p. 109.

IV. Muscular Dystrophy

- A. **Definition**
 - 1. Crowe, et al., p. 301.
 - 2. Fait, p. 135.
 - 3. French, et al., p. 231.

- B. **Causes**
 - 1. Crowe, et al., p. 301.
 - 2. Fait, p. 135.
 - 3. French, et al., p. 231.
- C. **Characteristics and Stages**
 - 1. Crowe, et al., pp. 302-303.
 - 2. Fait, pp. 136-137.
 - 3. French, et al., p. 231.
- D. **Assessment**
 - 1. French, et al., pp. 229-230.
- E. **Instructional Strategies**
 - 1. Crowe, et al., p. 301.
 - 2. Fait, pp. 136-137.
 - 3. French, et al., pp. 231-232.
- F. **Activities**
 - 1. Crowe, et al., p. 302.
 - 2. Fait, pp. 136-137.
 - 3. French, et al., p. 232.

Key Terms

1. Athetoid
2. Anoxia
3. Anticonvulsant Drugs
4. Ataxia
5. Contractures
6. Cerebral Palsy (brain paralysis)
7. Hemiplegia
8. Diplegia
9. Grand Mal
10. Jacksonian Seizure
11. Hemiplegia
12. Hydrocephaly
13. Meningocele
14. Minor Motor Seizure
15. Mixed Cerebral Palsy
16. Monoplegia
17. Muscular Dystrophy
18. Muscular Handicaps
19. Myelomeningocele
20. Neurological
21. Petit Mal
22. Psychomotor Seizure
23. Quadriplegia
24. Rigidity
25. Range of Motion (ROM)
26. Spastic
27. Spastic Paraplegia
28. Spina Bifida
29. Spina Bifida Cystica
30. Spina Bifida Occulta
31. Tremor
32. Triplegia
33. Ventricular-atrial Shunt

Module Five
Study Questions

1. Define the following:
Seizure Disorder
Cerebral Palsy
Spina Bifida
Muscular Dystrophy
2. Give the causes of seizure disorders, cerebral palsy, spina bifida, and muscular dystrophy.
3. Give the prevalence of each of the above mentioned disorders for the general population and for the school-age population.
4. Give the typical characteristics of each of the above mentioned disorders.
5. Give the classifications for seizure disorders and spina bifida.
6. Identify and explain the stages of disability for muscular dystrophy.
7. Identify and explain the motor-involvement sub-classes of cerebral palsy.
8. Identify and explain the motor-disability sub-classes of cerebral palsy.
9. Define the following terms:
Hemiplegia
Paraplegia
Diplegia
Quadriplegia
Triplegia
Monoplegia
10. Identify and explain the six common types of seizures.
11. Identify factors which may cause seizures.
12. Describe the behavioral characteristics of the child with muscular dystrophy.

13. Describe first aid procedures for seizure disorders.
14. Identify and describe teaching strategies for students with seizure disorders, for students with cerebral palsy, for students with spina bifida, and for students with muscular dystrophy.
15. Identify and describe appropriate physical activities for students with seizure disorders, for students with cerebral palsy, and for students with muscular dystrophy.

Assignments for Module Five

1. Readings:

Crowe, et al., Chapt. 13.
Fait, Chapt. 10.
French, et al., Chapt. 12.
Kalakian, et al., Chapt. 14.

2. A posttest covering class activities, study questions, and key terms.
3. A visit to Harris-Hillman School, a facility for severely multi-handicapped children.
4. A written report on the visitation.
5. A summary of an article on physical education programming for the neurologically and muscularly handicapped.

REFERENCES FOR STUDENTS AND THE INSTRUCTOR

- American Alliance for Health, Physical Education, Recreation and Dance. "Mainstreaming the Physically Handicapped Student for Team Sports." Practical Pointers. Reston, Virginia: Author, 1978, p. 8.
- American Alliance for Health, Physical Education, Recreation and Dance. "Teacher-Made Adapted Devices for Archery, Badminton, and Table Tennis." Practical Pointers. Reston, Virginia: Author, 1978, p. 13.
- American Association for Health, Physical Education and Recreation. Physical Education for Cerebral Palsied Individuals. Washington, D.C.: Author, 1976.
- Bullock, M. I., and P. Watter. "A Study of Effectiveness of Physiotherapy in the Management of Young Children with Minimal Cerebral Dysfunction." Physical Therapy, 60, No. 1 (1980), 105.
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- Magnus, O., and A. M. Lorentz (eds.). The Epilepsies. New York: American Elsevier, 1974.
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INSTRUCTOR'S ADDENDUM

INSTRUCTOR'S ADDENDUM

Suggested Class Activities for Module Five Reports

1. Field Trip. A field trip to a facility for the physically or multi-handicapped, followed by a written report on observations.
2. Resource Person. A classroom presentation by a professional who works with the neurologically and muscularly handicapped.
3. Audio-visual Aids to Enhance Study and Generate Class Discussion

(a) I'll Find a Way - 16mm, 26 min., color

Focus: Discussion of growing up with spina bifida.

From: Kent State University
Audio-Visual Services
330 Library Building
Kent, Ohio 44242

(b) Epilepsy: For Those Who Teach - 16mm

Focus: Demonstration of the proper way to handle a student who is having a seizure and of how to handle other children who are present in the classroom.

From: Epilepsy Foundation of America
1828 L. St., N.W.
Washington, D.C. 20036

(c) Kelly - 16mm, 27 min.

Focus: Shows the growth, development and progress of a cerebral palsied child in a regular day care center for a period of a year and a half.

From: Modern Talking Picture Services
Room 107
200 L. St., N.W.
Washington, D.C. 20036

Module Five**Pretest**

DIRECTIONS: The purpose of this test is to determine how much specific knowledge you have concerning physical education programming for the neurologically and muscularly handicapped. Answer each item as fully as possible.

1. Define seizure disorders, cerebral palsy, spina bifida, and muscular dystrophy.
2. Describe two typical characteristics for seizure disorders, for cerebral palsy, for spina bifida, and for muscular dystrophy (eight in all).
3. List four causes for seizure disorders, for cerebral palsy, and for muscular dystrophy (twelve in all).
4. List and explain the six common types of seizure disorders.
5. List and describe classifications of cerebral palsy based on motor disability.
6. Identify four instructional strategies appropriate to students with seizure disorders, with cerebral palsy, with spina bifida, and with muscular dystrophy (sixteen in all).
7. Identify and describe four activities appropriate to students with seizure disorders, for cerebral palsy, for spina bifida, and for muscular dystrophy (sixteen in all).

Module Five

Posttest

Part I. Multiple Choice (40 pts.)

Directions: Read each item carefully, and write in the blank the letter indicating the one correct phrase.

- ___ 1. A generalized motor seizure in which massive isometric episode occurs in all voluntary muscles at different times during an unconscious state is
 - a. a petit mal.
 - b. a grand mal.
 - c. a Jacksonian seizure.
 - d. an autonomic seizure.

- ___ 2. The most common and severe type of seizure is
 - a. a petit mal.
 - b. a grand mal.
 - c. a Jacksonian seizure.
 - d. an autonomic seizure.

- ___ 3. A short seizure (one to thirty seconds) characterized by a generally dazed appearance, minor twitching, or eye jerking or staring is
 - a. a petit mal.
 - b. a grand mal.
 - c. a Jacksonian seizure.
 - d. an autonomic seizure.

- ___ 4. A Jacksonian seizure is characterized by
 - a. a generally dazed appearance.
 - b. a massive isometric episode.
 - c. a clonic phase with no aura.
 - d. a tonic phase with an aura.

- ___ 5. The following first aid procedure is not recommended when a grand mal seizure occurs:
 - a. clearing obstacles and easing the subject to the ground.
 - b. loosening tight clothing.
 - c. restraining the subject.
 - d. protecting the tongue from being bitten or swallowed.

- ___ 6. The most common type of cerebral palsy is
a. ataxia.
b. rigidity.
c. spastic.
d. athetoid.
- ___ 7. A form of cerebral palsy usually accompanied by severe mental retardation is
a. ataxia.
b. rigidity.
c. spastic cerebral palsy.
d. athetoid.
- ___ 8. A form of cerebral palsy, the major manifestation of which is a reduced sense of balance, resulting in frequent falls, and a reduces sense of kinesthesia, is
a. ataxia.
b. rigidity.
c. spastic cerebral palsy.
d. none of the above.
- ___ 9. Hemiplegia refers to
a. paralysis primarily in the legs.
b. paralysis in the legs only.
c. paralysis on one side of the body.
d. paralysis on one limb.
- ___ 10. Spina bifida without serious consequence is called
a. meningocele.
b. occulta.
c. myocele.
d. cystica.
- ___ 11. Spina bifida cystica is a condition in which
a. the covering of the spinal cord protrudes through an abnormal vertebrae closure.
b. the spinal cord, nerve roots, and/or the spinal cord covering protrudes through an abnormal vertebrae opening.
c. the abnormal closure of the vertebrae causes protrusion of the spinal covering, spinal cord, and nerve roots.
d. all of the described conditions exist.

- ___ 12. Of the following the technique(s) which will allow a person with spina bifida to participate in a regular physical education program is
- modification of time to complete activity.
 - modification of equipment.
 - placement in success-oriented situations.
 - all of the above.
- ___ 13. In providing aquatic activities for students with muscular dystrophy, the physical educator must consider the following medical precaution:
- air and water temperature.
 - the amount of chlorine in the water.
 - the depth of the water.
 - the number of students in the class.
- ___ 14. Of the following the one which is not a type of muscular dystrophy is
- pseudohypertrophic.
 - facioscapulohumeral.
 - juvenile.
 - hypertrophic.
- ___ 15. For a person with muscular dystrophy, long periods of physical activity
- improve muscle tone.
 - are harmful.
 - are prescribed therapy.
 - are not always beneficial.

Module Five

Posttest

Part II. True and False (40 pts.)

Directions: Read each following statement carefully. If it is correct, place a T in the blank to the left of it. If it is incorrect, place an F in the blank and explain why it is false; your explanation should include the correct answer.

- ___ 1. Of the major types of cerebral palsy rigidity occurs least frequently.

- ___ 2. Rigidity is the most severe type of cerebral palsy.

- ___ 4. Athetoid form of cerebral palsy is characterized by drooling.

- ___ 5. The most severe form of spina bifida is cystica.

- ___ 6. Approximately 90 percent of children born with occulta either have or soon develop hydrocephaly.

- ___ 7. The treatment for hydrocephaly is the freezing of the thalamus.

- _____ 8. Many students with myelomeningocele have visual-motor problems which may prohibit them from catching, hitting, or throwing a ball.
-
-
- _____ 9. The three major goals of an aquatic program for a child with spina bifida are to maintain weight control, facilitate socialization, and to overcome the child's many fears and insecurities.
-
-
- _____ 10. Diplegia refers to paralysis on one side of the body, arm, and leg.
-
-
- _____ 11. Hemiplegia refers to paralysis on one side of the body, arm, and leg.
-
-
- _____ 12. Data reveal that there are somewhere between two hundred thousand to four hundred thousand with cerebral palsy in the United States; many of these people are school-age.
-
-
- _____ 13. Sixty percent of children with cerebral palsy are easily placed in regular classes.
-
-

____ 14. Because of the effects of P.L. 94-142 more students with cerebral palsy are placed in regular classes each year.

____ 15. The physical therapist provides the most significant related services in programs for a child with cerebral palsy.

____ 16. Cerebral palsy is most comprehensively described as a taxic hemiplegia.

Module Five**Posttest****Part III. Essay (30 pts.)**

DIRECTIONS: In an essay define and describe muscular dystrophy. Give its stages of disability, the behavioral characteristics of children with the disease, four physical activities which are generally indicated, and four which are contra-indicated for these children.

Module Six
Orthopedic Handicaps

The purpose of Module Six is to aid you in acquiring knowledge concerning orthopedic handicaps as they relate to physical education programming for the handicapped. When you complete this module, you should have acquired the following en route competencies stated below as behavioral objectives:

En Route Competencies

1. To define orthopedic handicap.
2. To identify and describe specific orthopedic handicaps.
3. To differentiate between specific congenital and acquired orthopedic disorders.
4. To state the prevalence of specific orthopedic handicaps.
5. To identify and describe specific teaching strategies for specific orthopedic handicaps.
6. To identify and describe appropriate ways to modify specific physical activities for specific orthopedically handicapping conditions.

Module Six

Outline of Content

- I. Disorders that Immobilize Lower Limbs: Spinal Cord Injury
 - A. Definition
 - 1. Fait, p. 106.
 - 2. Kalakian, et al., p. 229.
 - B. Prevalence
 - 1. Kalakian, et al., pp. 229-230.
 - C. Causes: Congenile/Acquired
 - 1. Kalakian, et al., p. 229.
 - D. Teaching Strategies
 - 1. Crowe, et al., pp. 304-305.
 - 2. Kalakian, et al., p. 23.
 - E. Appropriate Physical Activities
 - 1. Crowe, et al., p. 306.
 - 2. Fait, pp. 111-113.
 - 3. Kalakian, et al., pp. 231-232.
- II. Disorders that Limit Ambulation
 - A. Congenital Hip Dislocation
 - 1. Definition
 - (a) Crowe, et al., p. 296.
 - (b) Fait, pp. 113-114.
 - (c) Kalakian, et al., p. 243.
 - 2. Prevalence
 - (a) Crowe, et al., p. 297.
 - (b) Fait, p. 114.
 - (c) Kalakian, et al., p. 243.
 - 3. Causes
 - (a) Crowe, et al., pp. 296-297.
 - (b) Fait, p. 113.
 - 4. Teaching Strategies
 - (a) Crowe, et al., p. 298.
 - (b) Fait, p. 117.
 - (c) Kalakian, et al., p. 245.

5. Appropriate Physical Activities
 - (a) Crowe, et al., p. 300.
 - (b) Fait, p. 117.
 - (c) Kalakian, et al., p. 245.
- B. Talipes
1. Definition
 - (a) Crowe, et al., p. 304.
 - (b) Fait, p. 114.
 - (c) French, et al., p. 254.
 - (d) Kalakian, et al., p. 250.
 2. Prevalence
 - (a) Crowe, et al.
 - (b) French, et al., p. 256.
 - (c) Kalakian, et al., p. 250.
 3. Causes
 - (a) Fait, p. 114.
 - (b) French, et al., p. 256.
 - (c) Kalakian, et al., p. 252.
 4. Teaching Strategies
 - (a) Crowe, et al., p. 305.
 - (b) Fait, p. 117.
 - (c) Kalakian, et al., p. 252.
 5. Appropriate Physical Activities
 - (a) Crowe, et al., p. 305.
 - (b) Fait, pp. 117-118.
 - (c) Kalakian, et al., p. 252.
- C. Osteochondrosis
1. Legg-Calve-Perthes Disease
 - (a) Definition
 - (1) Fait, p. 115.
 - (2) Kalakian, et al., pp. 246-248.
 - (b) Prevalence
 - (1) Fait, p. 115.
 - (2) Kalakian, et al., p. 247.
 - (c) Causes
 - (1) Fait, p. 115.
 - (2) Kalakian, et al., p. 247.
 - (d) Teaching Strategies
 - (1) Crowe, et al., p. 279.
 - (2) Kalakian, et al., p. 248.
 - (e) Appropriate Physical Activities
 - (1) Crowe, et al., p. 279.
 - (2) Kalakian, et al., p. 148.

2. Osgood Schlatter Disease
 - (a) Definition
 - (1) Crowe, et al., p. 278.
 - (2) Fait, p. 115.
 - (3) French, et al., p. 245.
 - (b) Prevalence
 - (1) Crowe, et al., pp. 278-279.
 - (2) Fait, p. 115.
 - (3) French, et al., p. 245.
 - (c) Causes
 - (1) Crowe, et al., pp. 278-279
 - (2) French, et al., p. 245.
 - (d) Teaching Strategies
 - (1) Crowe, et al., p. 279.
 - (2) French, et al., p. 245.
 - (e) Appropriated Physical Activities
 - (1) Crowe, et al., p. 279.
 - (2) French, et al., p. 245.

- D. Leg Amputation
 1. Definition
 - (a) Crowe, et al., p. 292.
 - (b) Fait, p. 116.
 - (c) French, et al., p. 239.
 - (d) Kalakian, et al., p. 225.

 2. Prevalence
 - (a) Crowe, et al., pp. 292-293.
 - (b) Fait, p. 116.
 - (c) Kalakian, et al., p. 225.

 3. Types
 - (a) Crowe, et al., p. 293.
 - (b) Fait, pp. 116-117.
 - (c) French, et al., p. 239.

 4. Teaching Strategies
 - (a) Crowe, et al., p. 294.
 - (b) Fait, p. 117.
 - (c) French, et al., pp. 241-244.

 5. Appropriate Physical Activities
 - (a) Crowe, et al., p. 294.
 - (b) Fait, p. 117.
 - (c) French, et al., p. 244.

III. Disorders that Affect Other Body Movements

A. Wryneck

1. Definition

- (a) Crowe, et al., p. 305.
- (b) French, et al., p. 250.
- (c) Kalakian, et al., p. 255.

2. Prevalence

- (a) Kalakian, et al., p. 255.

3. Causes

- (a) Crowe, et al., p. 305.
- (b) French, et al., p. 250.
- (c) Kalakian, et al., p. 255.

4. Teaching Strategies

- (a) Crowe, et al., p. 306.
- (b) Kalakian, et al., p. 256.

5. Appropriate Physical Activities

- (a) Crowe, et al., p. 306.
- (b) French, et al., p. 250.
- (c) Kalakian, et al., pp. 255-256.

B. Scoliosis/Lordosis/Kyphosis

1. Definition and Description

- (a) Crowe, et al., pp. 233-239.
- (b) Fait, pp. 119-120, 122.
- (c) French, et al., pp. 250-251.
- (d) Kalakian, et al., pp. 170, 172, 176.

2. Characteristics

- (a) Crowe, et al., pp. 232-240.
- (b) Fait, pp. 120, 367.
- (c) French, et al., pp. 251-253.

3. Causes and/or Prevalence

- (a) Crowe, et al., pp. 232-235.
- (b) Fait, pp. 120, 367.
- (c) Kalakian, et al., p. 172.

4. Teaching Strategies

- (a) Crowe, et al., pp. 232-241.
- (b) Fait, p. 120.
- (c) French, et al., p. 251.
- (d) Kalakian, et al., pp. 174-176.

5. Appropriate Physical Activities
 - (a) Crowe, et al., pp. 232-233, 235, 241.
 - (b) Fait, pp. 120-121.
 - (c) French, et al., pp. 251-253.
 - (d) Kalakian, et al., pp. 174-176.
- C. Spondylitis and Spondylolisthesis
1. Definitions
 - (a) Crowe, et al., p. 304.
 - (b) Fait, p. 121.
 2. Causes and Characteristics
 - (a) Crowe, et al., p. 304.
 - (b) Fait, p. 121.
 3. Teaching Strategies
 - (a) Crowe, et al., p. 304.
 - (b) Fait, p. 122.
 4. Appropriate Physical Activities
 - (a) Crowe, et al., p. 304.
 - (b) Fait, p. 122.
- D. Arm Amputation
1. Definition
 - (a) Crowe, et al., p. 291.
 - (b) Fait, p. 116.
 - (c) French, et al., p. 329.
 - (d) Kalakian, et al., p. 225.
 2. Prevalence
 - (a) Crowe, et al., p. 291.
 - (b) French, et al., p. 240.
 3. Types, Causes, and Characteristics
 - (a) Crowe, et al., pp. 291-292.
 - (b) Fait, p. 116.
 - (c) French, et al., pp. 239-240.
 - (d) Kalakian, et al., pp. 225, 228-229.
 4. Teaching Strategies
 - (a) Crowe, et al., p. 293.
 - (b) Fait, pp. 121-122.
 - (c) French, et al., pp. 242-244.
 - (d) Kalakian, et al., pp. 225, 228-229.
- E. Arthritis
1. Types and Definitions
 - (a) Crowe, et al., pp. 294-295.
 - (b) Kalakian, et al., p. 239.

2. Prevalence
 - (a) Crowe, et al., pp. 294-295.
 - (b) Kalakian, et al., p. 239.
3. Causes and Characteristics
 - (a) Crowe, et al., p. 295.
 - (b) Kalakian, et al., pp. 239-240, 243.
4. Teaching Strategies
 - (a) Crowe, et al., p. 296.
 - (b) Kalakian, et al., pp. 240-243.
5. Appropriate Physical Activities
 - (a) Crowe, et al., pp. 295-296.
 - (b) Kalakian, et al., pp. 240, 243.

Key Terms

1. Amputation
2. Arm Amputation
3. Arthritis
4. Congenital Hip Dislocation
5. Clubfoot
6. Kyphosis
7. Leg Amputation
8. Leg-Calve-Parthes Disease
9. Lumbar Lordosis
10. Orthopedically Handicapped
11. Osgood-Schlatter's Disease
12. Postural Deviations
13. Scoliosis
14. Spinal Cord Injuries
15. Talipes
16. Torticollis
17. Wryneck

Module Six
Study Questions

Part I

1. Define the following terms:

Spinal Cord Injury (List and explain the classifications also.)
Congenital Hip Dislocation
Talipes
Osteochondrosis
Leg Amputation (List and explain the classifications also.)
Wryneck
Scoliosis
Lordosis
Kyphosis
Spondylitis
Spondylolisthesis
Arm Amputation (List and explain the classifications also.)
Arthritis (List the types also.)

Part II

Directions: For the terms listed above, provide the following information as indicated.

1. List and explain the causes of each disorder.
2. List and describe the characteristics of each disorder.
3. Give the prevalence of each disorder in the population in general and in the school-age population in particular (if such information is available).
4. Identify and describe teaching strategies for each disorder.
5. Identify and describe appropriate physical activities for each disorder including any necessary modifications.

Assignments for Module Six

1. Readings:

Crowe, et al., Chapt. 11.
Fait, Chapt. 9.
French, et al., Chapt. 13.
Kalakian, et al., Chapt. 12.

2. A posttest covering class activities, study questions, and key terms.
3. Summaries of two articles from two scholarly journals on physical education programming for the orthopedically handicapped.

REFERENCES FOR STUDENTS AND THE INSTRUCTOR

- Adams, Ronald C., et al. Games, Sports, and Exercise for the Physically Handicapped. 2d ed. Philadelphia: Lea and Febiger, 1975.
- American Alliance for Health, Physical Education, Recreation and Dance. "Sports Adaptations for Unilateral and Bilateral Upper-Limb Amputees." Practical Pointers, Reston, Virginia: Author, p. 10.
- Cratty, Bryant J. Developmental Games for Physically Handicapped Children. Palo Alto, California: Peek Publications, 1976.
- Collipp, P. S. Childhood Obesity. Acton, Massachusetts: Publishing Sciences Group, 1975.
- Daniels, L. Therapeutic Exercise for Body Alignment and Function. 2d ed. Philadelphia: W. B. Saunders, 1977.
- Robertson, E. Rehabilitation of Arm Amputees and Limb-Deficient Children. London: Bailliere Tindall, 1978.

INSTRUCTOR'S ADDENDUM

INSTRUCTOR'S ADDENDUM

Suggested Class Activities for Module Six

1. Resource person. A visitation and demonstration by a person who is a wheelchair victim.
2. Audio-visual Aids to Enhance Study and Generate Class Discussion.
 - (a) Promise of Play - 16mm, 22 min., color
Focus: Andy will spend most of his life in a wheelchair. Techniques and ideas are presented for including him in classroom games.

From: Boston University
Krasker Memorial Film Library
765 Commonwealth Avenue
Boston, Massachusetts 02215
 - (b) Pushin' - 3/4" Videocassette, 10 min., color
Focus: Individuals in wheelchairs participating in athletic events.

From: AAHPERD/IRUC
1900 Association Drive
Reston, Virginia 22091
 - (c) Rick, You're In - 16mm, 20 min., color
Focus: Rick has attended special schools for the handicapped. Now a high school senior, he has entered a regular school. This is the story of his experiences and efforts to become accepted.

From: Walt Disney Educational Media Company
500 South Buena Vista Street
Burbank, California 91521
 - (d) Walter - 16mm, 15 min., color
Focus: A story of a young self-sufficient person who is paraplegic with ambition and a special love for wheelchair basketball.

From: Churchill Films
662 North Robertson Boulevard
Los Angeles, California 90069

Module Six

Pretest

Part I

DIRECTIONS: The purpose of this test is to determine how much specific knowledge you have concerning physical education programming for the orthopedically handicapped. Answer each item as fully as possible.

1. Define and classify spinal cord injuries.
2. Identify and explain four teaching strategies for students with spinal cord injuries.
3. Identify and describe four appropriate physical activities for students with spinal cord injuries.

Part II

DIRECTIONS: For each of the following orthopedic disorders listed below, provide the following information:

- (a) a definition, including two primary characteristics.
- (b) whether the causes are of a congenital nature, an acquired, or either.
- (c) the implications of each disorder for physical education in terms of specific teaching strategies and physical activities (two strategies and two activities for each disorder).

Orthopedic Disorders

- | | |
|-------------------------------|-----------------------|
| 1. Congenital Hip Dislocation | 7. Lordosis |
| 2. Talipes | 8. Kyphosis |
| 3. Osteochondrosis | 9. Spondylitis |
| 4. Leg Amputation | 10. Spondylolisthesis |
| 5. Wryneck | 11. Arm Amputation |
| 6. Scoliosis | 12. Arthritis |

Module Six

Posttest

Part I. Matching (30 pts.)

Directions: Place the letter of the terms on the right in the blank adjacent to the statements on the left which most appropriately defines or describes the terms.

- | | | | |
|-----------|--|----|----------------------------|
| _____ 1. | The nation's number onecrippler. | a. | Spinal CordInjuries |
| _____ 2. | Surgical removal of a limb to ameliorate a disease or condition. | b. | Congenital Hip Disorder |
| _____ 3. | Torticollis | c. | Talipes |
| _____ 4. | Results when a body part fails to develop or to develop properly during the prenatal period. | d. | Osteochondrosis |
| _____ 5. | Literally means "joint inflammation." | e. | Leg Amputation |
| _____ 6. | Inflammation of the vertebrae. | f. | Wryneck |
| _____ 7. | A partially or completely displaced head in relation to the acetabulum. | g. | Scoliosis |
| _____ 8. | One of the most common deformities of the lower extremities. | h. | Lordosis |
| _____ 9. | Results from the separation of the tibial tubercle at the epiphyseal junction. | i. | Kyphosis |
| _____ 10. | An acute inflammatory condition of the synovial membrane. | j. | Spondylitis |
| _____ 11. | The loss of a limb as a result of some violence to the body. | k. | Spondylolisthesis |
| | | l. | Arm Amputation |
| | | m. | Arthritis |
| | | n. | Amputation |
| | | o. | Rheumatoid Arthritis |
| | | p. | Infectious Arthritis |
| | | q. | Congenital Amputation |
| | | r. | Traumatic Amputation |
| | | s. | Elective Amputation |
| | | t. | Osgood Schlatter Condition |

- ___ 13. A lateral curvature of the spine in which the vertebrae is twisted or bent.
- ___ 14. A hereditary deformity in which a vertebrae slips forward over another vertebrae.
- ___ 15. The removal of some member, part, or body organ through surgery, traumor, or some congenital malformation.

Module Six

Posttest

Part II. Completion (30 pts.)

Directions: Fill in the blank with the word or phrase which most appropriately completes the statement.

1. Spinal cord injuries which result in the use of the neck and diaphragm muscles only take place at the _____ level.
2. A spinal cord injury of the upper thoracic level results in _____.
3. Two physical disorders which often accompany spinal cord injury are _____ and _____.
4. Four physical activities appropriate for students with spinal cord injuries are
 - a.
 - b.
 - c.
 - d.
5. Three factors which may contribute to congenital limb deficiency are _____, _____, and _____.
6. Four considerations in planning a program for a pupil with an amputation are
 - a.
 - b.
 - c.
 - d.

7. Four appropriate physical activities for a student with an arm amputation are
 - a.
 - b.
 - c.
 - d.
8. Four appropriate physical activities for a student with a leg amputation are
 - a.
 - b.
 - c.
 - d.
9. Three exercises for congenital hip dislocations are
 - a.
 - b.
 - c.
10. Four exercises for trunk postural deviations are
 - a.
 - b.
 - c.
 - c.

Module Six

Posttest

Part III. Essay

DIRECTIONS: Write an essay on arthritis. Explain why it is essential for a physical educator to be well informed about this disease in particular, and provide the following information:

- (1) major categories
- (2) behavioral characteristics of children
- (3) four teaching strategies
- (4) four appropriate and four inappropriate physical activities

Module Seven
Other Health Impairments

The purpose of Module Seven is to aid you in acquiring knowledge concerning physical education programming for persons with health impairments not covered in the preceding modules. When you complete this module, you should have acquired the following en route competencies stated as behavioral objectives:

En Route Competencies

1. To define the various types of cardiovascular disease, respiratory disorders, kidney disorders, blood disorders, and diabetes.
2. To identify causes of the disorders mentioned above.
3. To identify and describe specific characteristics of these disorders.
4. To identify and describe characteristics for the various types of disorders within the classifications given above.
5. To identify and describe appropriate physical education for each type specified in a particular classification.

Module Seven
Outline of Content

I. Cardiovascular Diseases

- A. Definition
 - 1. Crowe, et al., p. 308.
 - 2. French, et al., p. 260.
 - 3. Kalakian, et al., p. 203.
- B. Types
 - 1. Crowe, et al., p. 309.
 - 2. Fait, p. 168.
 - 3. French, et al., p. 260.
- C. Causes and Prevalence
 - 1. Crowe, et al., p. 308.
 - 2. French, et al., p. 261.
- D. Characteristics
 - 1. Fait, p. 171.
 - 2. French, et al., p. 261.
- E. Teaching Strategies
 - 1. Crowe, et al., p. 316.
 - 2. Fait, p. 173.
 - 3. French, et al., pp. 263-264.
- F. Appropriate Physical Activities
 - 1. Crowe, et al., pp. 317-318.
 - 2. Fait, pp. 174-175.
 - 3. French, et al., p. 263.

II. Respiratory Disorders

- A. Definition
 - 1. Crowe, et al., p. 323.
 - 2. Fait, p. 177.
 - 3. French, et al., p. 267.
 - 4. Kalakian, et al., p. 192.
- B. Types
 - 1. Crowe, et al., p. 321.
 - 2. Fait, pp. 177-181.
 - 3. French, et al., pp. 266-267.
 - 4. Kalakian, et al., pp. 185-194.

- C. Causes and Characteristics
 - 1. Crowe, et al., p. 323.
 - 2. Fait, pp. 178-179.
 - 3. French, et al., p. 267.
 - 4. Kalakian, et al., p. 193.
- D. Prevalence
 - 1. Crowe, et al., p. 323.
 - 2. Fait, p. 180.
 - 3. French, et al., p. 266.
 - 4. Kalakian, et al., p. 193.
- E. Teaching Strategies
 - 1. Crowe, et al., p. 323.
 - 2. French, et al., p. 267.
 - 3. Kalakian, et al., p. 200.
- F. Appropriate Physical Activities
 - 1. Crowe, et al., pp. 323-324.
 - 2. Fait, p. 178.
 - 3. French, et al., p. 267.
 - 4. Kalakian, et al., pp. 200-201.

III. Kidney Disorders

- A. Definition
 - 1. Crowe, et al., p. 412.
 - 2. Fait, p. 196.
- B. Types
 - 1. Crowe, et al., p. 412.
 - 2. Fait, p. 196.
- C. Causes and Characteristics
 - 1. Crowe, et al., p. 412.
 - 2. Fait, p. 197.
- D. Teaching Strategies
 - 1. Crowe, et al., p. 412.
 - 2. Fait, p. 197.
- E. Appropriate Physical Activities
 - 1. Crowe, et al., p. 412.
 - 2. Fait, p. 197.

IV. Anemia

- A. Definitions
 - 1. Crowe, et al., p. 201.
 - 2. French, et al., p. 259.
 - 3. Kalakian, et al., pp. 209, 211.

- B. Causes and Characteristics
 - 1. Fait, pp. 201-202.
 - 2. French, et al., pp. 259-260.
 - 3. Kalakian, et al., pp. 209-211.
 - C. Types and Prevalence
 - 1. Fait, pp. 201-202.
 - 2. French, et al., p. 260.
 - 3. Kalakian, et al., pp. 209-212.
 - D. Teaching Strategies
 - 1. Fait, pp. 202-203.
 - 2. French, et al., p. 260.
 - 3. Kalakian, et al., p. 210.
 - E. Appropriate Physical Activities
 - 1. Fait, pp. 202-203.
 - 2. French, et al., p. 260.
 - 3. Kalakian, et al., pp. 210-211, 213-214.
- V. Diabetes
- A. Definition
 - 1. Crowe, et al., p. 410.
 - 2. Fait, p. 198.
 - 3. French, et al., p. 264.
 - 4. Kalakian, et al., p. 311.
 - B. Cause and Prevalence
 - 1. Crowe, et al., p. 410.
 - 2. Fait, p. 198.
 - 3. French, et al., p. 265.
 - 4. Kalakian, et al., pp. 313-314.
 - C. Characteristics
 - 1. Crowe, et al., p. 410.
 - 2. French, et al., p. 264.
 - 3. Kalakian, et al., pp. 314-315.
 - D. Teaching Strategies
 - 1. Crowe, et al., pp. 411-412.
 - 2. Fait, p. 198.
 - 3. French, et al., p. 266.
 - 4. Kalakian, et al., p. 310.
 - E. Appropriate Physical Activities
 - 1. Crowe, et al., pp. 411-412.
 - 2. Fait, p. 198.
 - 3. French, et al., p. 266.
 - 4. Kalakian, et al., pp. 319-320.

Key Terms

1. Acute Nephritis
2. Anemia
3. Aplastic Anemia
4. Bronchial Asthma
5. Chronic Nephritis
6. Class A
7. Class B
8. Class C
9. Class D
10. Class E
11. Congenital Heart Disease
12. Cystic Fibrosis
13. Diabetes
14. Diabetic Coma
15. Hypertension
16. Insulin Reaction
17. Kidney Disorder
18. Rheumatic Heart Disease
19. Sickle Cell Anemia

Module Seven

Study Questions

1. Define the following categories of disorders and list and define the types of disorders under each of them.

Cardiovascular Disease

Respiratory Disorders

Kidney Disorders

Anemia

Diabetes

2. Give the causes and prevalence of disorders under the five categories listed above.
3. Identify and describe the characteristics of the types of disorders under the five categories.
4. Identify and describe teaching strategies for each type of the five categories listed above.
5. Identify and describe appropriate and inappropriate physical activities for the disorders in the five categories listed above.

Assignments for Module Seven

1. Readings:

Crowe, et al., Chapt. 12.
Fait, Chapt. 13 and 14.
French, et al., Chapt. 14.
Kalakian, Chapt. 10, 11, and 15.

2. A posttest covering class activities, study questions, and key terms.
3. A summary of two articles on physical education programming for the disorders described in this module. One of the articles must deal with cardiac conditions.
4. A written report on developing exercises for students with cardiac disorders.

REFERENCES FOR STUDENTS AND THE INSTRUCTOR

- Bacchus, H. Rational Management of Diabetes. Baltimore: University Park Press, 1977.
- Blumenthal, M. N., et al. "Controlling Asthma Through Sports and Counseling." Physical Sports Medicine, 2 (1974), 51-54.
- Mathewson, H. S. Respiratory Therapy in Critical Care. St. Louis: C. V. Mosby, 1976.
- Pollock, M. L. (ed.). Heart Disease and Rehabilitation. Boston: Houghton Mifflin, 1979.
- Pollock, M. L., J. H. Wilmore, and S. M. Fox. Health and Fitness Through Physical Activity. New York: John Wiley, 1979.
- Sherrill, C. Adapted Physical Education: A Multi-disciplinary Approach. Dubuque, Iowa: Wm. C. Brown Company, 1976.
- Sinclair, W. A. "Physical Education and Asthma are Compatible." California Association of Health, Physical Education and Recreation Journal, 36 (1973), 19.
- Stein, J. "Effects of Physical Activity and Exercise Upon Asthmatic Children." Report to U.S. Office of Education. In Physical Education and Recreation for the Handicapped: Programs for the Handicapped. Washington, D.C.: American Association for Health, Physical Education and Recreation, 1975.

INSTRUCTOR'S ADDENDUM

INSTRUCTOR'S ADDENDUM

Suggested Class Activities for Module Seven

1. Reports. A written report dealing with physical education programming for one of the types within the broad categories in this module.
2. Resource Person. A professional who works with persons with one of the types of disorders covered in Module Seven.
3. Audio-visual Aids to Enhance Module Seven
 - (a) A Breath of Fun - 16mm, 18 min., color
Focus: Children with asthma are shown during a program of exercise and respiratory rehabilitation. It shows how a course of exercise and games can be an important aid to medical treatment.
From: Allergy Foundation of America
801 Second Avenue
New York, New York 10017
 - (b) The Cardiovascular Diseases - 20 slides, 35mm
Focus: This series covers such topics as circulation of the blood, congenital heart defects, rheumatic heart disease, high blood pressure, coronary heart disease, strokes, and varicose veins. Intended audience is the general public and nurses.
From: American Heart Association
Film Library
257 W. 25th Street
New York, New York 10001
 - (c) Congenital Heart Defects (24-0224) - 16mm, 9½ min., 1958, sound, color
Focus: This film explains the underlying physiology of a number of congenital heart defects. A normal heart is contrasted with those having defects that may be helped by surgery. The heart-lung machine is shown, and the surgical

advances it has made possible are explained. Intended audience is nurses, student nurses, and social workers. This film has been cleared for television.

From: American Heart Association
Film Library
257 W. 25th Street
New York, New York 10001

- (d) Rheumatic Heart Disease (24-0245) - 16mm, 7½ min.,
1959, sound, color

Focus: This film shows how rheumatic heart disease may be caused by rheumatic fever. Through the use of animated cartoons, this film illustrates the danger signs of streptococcal infections, which set the stage for rheumatic fever. Common-sense precautions against streptococcal infections and repeated attacks of rheumatic fever are outlined. Intended audience is nurses and social workers. This film has been cleared for television.

From: American Heart Association
Film Library
257 W. 25th Street
New York, New York 10001

Module Seven

Pretest

DIRECTIONS: The purpose of this test is to determine how much knowledge you have concerning physical education programming for "Other Health Impairments" as defined by P.L. 94-142. Answer the questions as fully as possible.

1. Define the term "other health impairments" as described in P.L. 94-142.
2. Identify and define the four major types of cardiovascular diseases listed by the American Heart Association.
3. Identify and define two major respiratory disorders.
4. Give the two classifications of kidney disorder and describe suggested physical activities for this disease.
5. Identify and describe three major blood disorders.
6. Define diabetes and give its causes, characteristics, and appropriate physical activities.
7. Describe classroom, first aid procedures for diabetic coma or insulin shock.

Module Seven

Posttest

Part I. Completion (30 pts.)

Directions: Complete the following statements by providing the most appropriate words or phrases.

1. Two of the most common respiratory disorders are _____ and _____.
2. Two types of bronchitis are _____ and _____.
3. The _____ form of bronchitis attacks both children and adults, but the _____ type is more common among adults.
4. For older children and youth who can tolerate only minimum stress on the respiratory system because of respiratory disorders, three suggested activities are:
 - a.
 - b.
 - c.
5. Three considerations in planning and implementing a physical education program to accommodate students with respiratory disorders are:
 - a.
 - b.
 - c.
6. The most prevalent kidney disorder that occurs in children and young adults is _____. This disorder often follows acute infections such as:
 - a.
 - b.

7. Three types of anemia are:
 - a.
 - b.
 - c.
8. Two common symptoms of anemia are:
 - a.
 - b.
9. Two common causes of anemia are:
 - a.
 - b.
10. Three suggested activities for students with anemia disorders are:
 - a.
 - b.
 - c.
11. Two major complications associated with diabetes are:
 - a.
 - b.
12. Three general guidelines for programming for students with diabetes in physical education are:
 - a.
 - b.
 - c.

Module Seven

Posttest

Part II. Matching (30 pts.)

Directions: Place the letter of the terms on the right in the blank adjacent to the statements on the left which most appropriately defines or describes the terms.

- | | | |
|-----------|---|-------------------------------------|
| _____ 1. | A disease of the bone marrow where red blood corpuscles are formed. | a. Chronic Nephritis (third stage) |
| _____ 2. | Poisoning of the blood by waste products of the body occurs. | b. Aplastic Anemia |
| _____ 3. | Ordinary physical activity allowed. | c. Diabetic Coma |
| _____ 4. | Third leading cause of death in the United States and leading cause of blindness in adults under 70 years of age. | d. Class E |
| _____ 5. | Second most common cardiac condition in childhood. | e. Anemia |
| _____ 6. | Physical activity should be moderately limited. | f. Cystic Fibrosis |
| _____ 7. | Characterized by wheezing and coughing. | g. Diabetes |
| _____ 8. | Too much insulin in the blood stream. | h. Bronchial Asthma |
| _____ 9. | Caused by defective hemoglobin synthesis. | i. Chronic Nephritis (first stage) |
| _____ 10. | Most common blood disorder in children. | j. Class A |
| _____ 11. | Abnormal or premature development. | k. Congenital Heart Disorder |
| | | l. Insulin Reaction |
| | | m. Sickle Cell Anemia |
| | | n. Rheumatic Heart Disease |
| | | o. Class C |
| | | p. Hypertension |
| | | q. Acute Nephritis |
| | | r. Kidney Disorder |
| | | s. Acute Heart Disorder |
| | | t. Chronic Nephritis (second stage) |

- ___12. Hereditary disorder of the pancreas.
- ___13. Insufficient production or utilization of insulin.
- ___14. No physical activity, should be at complete rest.
- ___15. Cardiac condition in children which was generally overlooked until the late 1970's.

Module Seven

Posttest

Part III. Essay

DIRECTIONS: Write a brief essay on cardiovascular disorders in which you

- (1) identify and describe the four major types
- (2) give their major characteristics
- (3) indicate six controls that should be used as a guide when developing exercise programs for students with cardiac disorders.

Practicum in Special Physical Education

The primary purpose of the practicum program in this course is to provide a planned, carefully supervised learning experience which allows you to demonstrate your ability as a teacher in a special education setting, utilizing the diagnostic-prescriptive process. The practicum provides a continual opportunity to apply educational theory in a special classroom setting. The results of your practicum experience should be behavioral change as evidenced in your performance. This change should encompass the cognitive and affective domains as well as your instructional and human relations skills.

You will be assigned to three different special schools for two-week periods. At each site the cooperating teacher will assign you one or two children with whom to work. You will work with the child(ren) at the three sites for a minimum of 60 hours per semester of practicum experience. Your participation in this practicum will provide you the opportunity to function in virtually every role of the professional teacher. It is to this end that the following en route competencies stated as behavioral objectives are established.

En Route Competencies

1. To relate effectively to a group of exceptional learners in a teaching-learning situation.
2. To effectively utilize a variety of teaching techniques and strategies in the classroom for exceptional children.
3. To utilize the diagnostic-prescriptive process.
4. To provide for individual student needs and to prepare lessons that reflect the ability to properly state instructional objectives.
5. To write and effectively implement unit and daily lesson plans for the exceptional child.
6. To establish a positive working relationship with members of a professional staff, parents, and students.
7. To understand the rules and regulations of the school where the student is placed as well as the regulations of the school system.
8. To effectively participate in the co-curricular activities of the school.
9. To develop an individualized educational program for the exceptional learner.

When you complete the practicum, you should have acquired not only the en route competencies but the terminal competencies stated at the beginning of this manual.

Guidelines for Practicum Experience

- I. Your college supervisor will be responsible for
 - A. Observing each practicum student with follow-up consultation throughout the semester.
 - B. Evaluating the practicum student's performance.

- C. Conducting conferences when requested by the practicum student.
- D. Conducting formal and informal conferences during the semester with all practicum students.
- E. Functioning as a liaison between the practicum teachers and placement site.
- F. Discussing the requirements with the practicum student and the cooperating teacher.
- G. Placing students at the school sites of their choice when possible.

II. You will be responsible for

- A. Observing in the school and the assigned classroom for a period of one to two weeks (the exact time, prior to the two-week period, will be determined by the cooperating teacher and the student on an individual basis).
- B. Becoming informed about the school's philosophy, organization, policies, and procedures.
- C. Notifying the appropriate school personnel (the night before if possible or the following morning) if it is necessary to be absent or late.
- D. Informing the college supervisor of any special teaching session that she/he wishes to have observed and evaluated.
- E. Attending all practicum seminars or special meetings conducted by the college supervisor.
- F. Submitting lesson plans, logs, teaching plans, and time sheets as requested and approved by the college supervisor and/or cooperating teacher. (Minimum once a week.) All logs and lesson plans must be submitted to college supervisor and cooperating teacher.

- G. Reporting severe problems or concerns to the cooperating teacher and college supervisor.
- H. Engaging in self-evaluation as agreed upon by the student teacher and college supervisor, i.e., evaluation forms, self-evaluations, and check lists.
- I. Keeping a written summary of instructional interactions of individual exceptional children and/or small groups.

III. Your cooperating teachers will be responsible for

- A. Explaining the long-range goals for the school year and deciding with the practicum student the goals for the exceptional child for which he/she will be responsible.
- B. Acquainting the student with school philosophy, procedures, policies, personnel, facilities, and materials of the school.
- C. Setting aside a regular time for conferences with the student teacher each day.
- D. Providing continuous feedback to the student on his/her performance.
- E. Submitting a practicum evaluation form two times during the semester.
- F. Arranging a wide variety of learning experiences that will allow the practicum student to gradually assume responsibility for the total group of children (individual, small group, total group).
- G. Encouraging the development of individual learning activities, learning centers, evaluations, assessments, and other materials.
- H. Providing opportunities for the practicum student to assume responsibility for problems of classroom management and discipline. (However, because of legal obligations teachers should feel free to take positive

action to prevent potential dangerous situations from occurring. Often the supervising teacher can assist in remedying such situations without the student's inexperience becoming apparent.)

- I. Providing activities in which the practicum student becomes familiar with other teacher responsibilities.

Some examples of activities are:

1. taking part in class discussions
2. reviewing cumulative records to confirm their own diagnosis
3. making special reports to the class
4. giving demonstrations
5. helping individuals or small groups

If you are unable to participate in the practicum experience during the regular daytime hours because of job responsibilities, you may be placed at an agency to complete the practicum experience in the evenings. In case of an agency placement, you will be actively involved with medical doctors, psychologists, social workers, and other professionals in working out a comprehensive program for the exceptional child.

Description of Practicum Site

The following facilities are available for trainees in this program:

1. Harris-Hillman School for the Handicapped

This facility is located about five miles from the campus of Tennessee State University. It is a school designed to aid in the education of a full spectrum of

severely handicapped clients from infancy to 21 years of age. Approximately 200 students are presently served in the facility. The staff includes a physical therapist as well as a physical educator.

2. Cavert School

This elementary school is located about five miles from the Tennessee State University campus. It has special classes for children with behavioral or learning disabilities. The population of the school is about 170 with student ages ranging from 6 to 14.

3. Jones School

This school is a center for the trainable mentally retarded. It is about eight minutes, northwest, from the Tennessee State University campus. The facility services about 150 clients.

4. Clover Bottom Development Center

This facility is about a 30-minute drive from the campus of Tennessee State University. It is a state facility for the mentally retarded. It is presently undergoing reorganization aimed at moving the clients away from the institutional setting.

5. Rochelle Training and Rehabilitation Center

This facility is only six miles from the Tennessee State University campus. It serves the developmentally disabled which includes the mentally retarded, physically handicapped, and behaviorally disordered. The center which

serves approximately 150 clients contains both educational and job training programs. This program offers trainees opportunities to assess motor development of individuals as well as an experience in working with those with developmental disabilities.

6. Tennessee School for the Blind

This school is located adjacent to the Clover Bottom Development Center but is completely separate in operation. About 200 severely visually impaired students aged 5-19 are in the program. Some children are multi-handicapped. At this facility, a practicum involving after-school recreation is also available to trainees.

7. Cumberland House

This facility is within seven minutes of the Tennessee State University campus by car. Its clients, ages 6 to 13, are referred through community mental health centers. The clients have emotional handicaps that prevent them from functioning in a normal setting. During the school terms it offers 24-hour care during the school week. Trainees will have opportunities to develop counseling and behavior modification techniques as well as skills in assessing individual motor development. An extensive outdoor recreation program is also available.

8. Bailey School

This school also is a center for the trainable mentally retarded. It is about a 20-minute drive from the Tennessee

State University campus. It functions similarly to Jones School and services about 200 clients (ages 14-21).

9. Murrell School

This school is a center for the trainable mentally retarded, too. It is only about ten minutes from the Tennessee State University campus. It functions similarly to Jones and Bailey schools. It services about 110 clients (ages 8-14 years).

10. Crockett Academy

This is a residential school and psychiatric treatment center for young people, ages 13 through 17, who live in the 26-county area of middle Tennessee.

The program serves the needs of young people who are unable to function in their homes because of special emotional needs or behavioral problems and who have no local community program to meet their needs. Services provided by Crockett Academy include residential evaluation and short-term crisis intervention, residential treatment, approved secondary education, vocational training and placement, and evaluation for and recommendation to the juvenile courts when necessary.

CHAPTER FIVE

Summary, Conclusions, and Recommendations

Summary

The purpose of this study has been to develop an in-service training program designed to accommodate training requirements and mandates of Public Law 94-142 as they relate to physical education and to develop an instructional delivery design for a special physical education program utilizing the competency-based approach. The previous chapters dealt with the introduction to the problem, a review of related literature, the methods and procedures used in this study, an analysis and discussion of data, and a description of a competency-based course design. This concluding chapter presents the summary, conclusions, and recommendations for this study.

Conclusions

In recent years a major emphasis has been directed toward the training of educators who are responsible for implementing Public Law 94-142 and who are to provide quality education for handicapped students in the least restrictive environment. The course "Mainstreaming in Physical Education" has been developed to train physical

educators to perform these tasks. It has been designed to provide both theoretical and practical experience needed in the acquisition of competencies in special physical education programming. The following modules are included in the course:

1. Overview of Physical Education Programming for the Handicapped
2. Mental Retardation
3. Emotional Disturbances
4. Sensory Impairments
5. Neurological and Muscular Handicaps
6. Orthopedic Handicaps
7. Other Health Impairments

To aid the trainee and instructor through the course, an instructor/student manual (presented in Chapter Four) has been developed. The suggested format for the course contained two components and an introduction. Section one was an introductory section to acquaint the in-service trainee with the use of the manual and general class procedures. Section two was developed to aid in-service trainees in gaining understanding and insight into special physical education through an overview of physical education programming for the handicapped and a comprehensive study of various handicapping conditions. Section three was designed to facilitate in-service personnel achieving a high degree

of skill in special physical education through diverse practicum experiences.

The importance and usefulness of the topics were determined by a questionnaire distributed to 196 Metro Nashville physical educators. Based on the results of the questionnaire, the conclusion was drawn that the modules developed were useful and important in a special physical education in-service training program. The course design and accompanying manual were developed to meet the needs of physical educators in Tennessee, especially Metro Nashville; however, comparison of similar surveys described in the related literature suggested that the course and manual could be used in any part of the country with some modification to reflect the needs of the individual educational region.

Recommendations

In light of the need for further research on the effectiveness of in-service training models in special physical education, the following recommendations are made:

1. That the in-service training model designed in this study as a graduate course to be taught at Tennessee State University be implemented.
2. That a study utilizing this model be conducted for the development of a more extensive and comprehensive in-service training program which would include administrators,

special educators, regular classroom teachers, and others who are directly or indirectly responsible for physical education programming for the handicapped.

3. That similar studies on in-service training needs be conducted by local school systems so that particular school system needs can be addressed.

4. That a follow-up study be conducted to determine the effectiveness of the in-service training model presented here for practicing physical educators.

5. That the research techniques used in this study to identify in-service training needs be adapted by other departments on the Tennessee State University campus in establishing in-service training programs.

6. That the instructional materials used in the modules designed for this training model be updated and expanded to include information on other handicapping conditions and more recent techniques and approaches for teaching the handicapped.

7. That research be done to develop more effective assessment instruments to measure the extent to which competencies acquired in in-service training programs and to establish some correlation between the degree of competency acquired and the type of in-service training technique used.

8. That further study be conducted to measure the effectiveness of in-service training in special physical education.

9. That additional studies be conducted to evaluate the effectiveness of various in-service training models.

It is hoped that this study will be of assistance to others who are charged with the responsibility of providing physical education instruction, but, more especially, for those with the responsibility of providing physical education programming for the handicapped in "the least restrictive environment."

APPENDIXES

APPENDIX A

ANALYSIS OF DATA PERCENTAGES

Analysis of Data Percentages

Nine percent of the target population had been teaching between two and four years; 30% between five and nine years; and 61% 10 or more years. Fifty-eight percent teach at the elementary school level; 16% teach at the junior high school level; 22% at the senior high level; and 4% at special schools for the handicapped. Thirty-eight percent had Bachelor's degrees; 5% had Specialist degrees, and 16% had Master's degrees. Thirty-six had hours beyond the Master's; 2% had completed all course work for the doctorate; and 1% had the terminal degree. Of the total number responding to the survey, 60% had done some graduate study. Thirty-six percent of those had studied in the area of physical education; 59% in health and physical education; and only 5% in adapted physical education or programming for the handicapped. Thirty percent of those who participated in the survey were presently engaged in advanced study; 28% planned to engage in advanced study; and 30% did not plan to do any advanced study. Twenty-five percent took courses at night; 24% took courses during the summer; and 4% took courses during the weekend. Twenty-two percent had taken no college-level special education courses; 59% had taken from one to two courses; and only 14% had taken from three to four courses. Twenty-three percent had taken college-level physical education courses dealing with the teaching of exceptional students. Sixty percent had taken one to two

courses, and only 14% had taken three to four courses. Sixty-seven percent had completed no college-level physical education practicum courses dealing with teaching the exceptional student. Twenty-seven percent had completed from three to four courses. Fifty-two percent had received no in-service training in physical education programming for the handicapped between October 1, 1979, and August 15, 1982. Forty-one percent had received one to 10 hours, and only 6% had received from 11 to 20 hours. Fifty-four percent had received no in-service training in special education between October 1, 1976, and August 15, 1982. Thirty-nine percent had received one to 10 hours, and only 3% had received from 11 to 20 hours. The majority of those responding (51%) had received the major part of their preparation for dealing with handicapped children from undergraduate programs. Nineteen percent had received most of their preparation from graduate programs, and 13% indicated that they had received most of their preparation from in-service training. Seventeen percent did not respond. Sixty-eight percent of the target population is presently working with handicapped children, although the majority of those responding (56%) rated their skills in dealing with handicapped students as "poor," while another 8% rated their skills as "very poor." Only 32% rated their skills as "good," and only a mere 3% as "very good." Of those surveyed, 88% are interested in in-service training to

prepare them to teach physical education to the handicapped. Thirty-nine percent indicated interest in an in-service training program for graduate credit. Two percent indicated interest in an in-service training program without credit. Thirty-seven percent indicated interest in workshops, and 10% indicated interest in in-service clinics. Referring to the questionnaire, 79% of those responding indicated that they had limited, little, or no knowledge of those competencies needed to provide effective physical education programming for the handicapped and to properly implement Public Law 94-142. Only 21% rated themselves as having adequate or superior knowledge of those competencies. This survey indicates clearly a need for further training in physical education for the handicapped and a desire on the part of physical educators to obtain the training.

APPENDIX B

LETTER TO PHYSICAL EDUCATION COORDINATOR

Tennessee State University
Department of Health, Physical Education
and Recreation

February 1, 1983

Mr. Howard Stubblefield
Coordinator
Physical Education
Metropolitan Public Schools
Nashville, TN 37203

Dear Mr. Stubblefield:

This letter is in reference to the conference which we had on January 26. At that time we discussed the possibility of my conducting a survey of physical education teachers in the Metro Nashville area to determine their in-service staff development needs and interests related to physical education programming for exceptional children.

In response to your generous approval of this project, I am enclosing 196 questionnaires to be distributed to Metro physical education teachers. Please let me know if there is anything further I need to do.

I appreciate greatly your cooperation and support in this effort and will share with you the results of the survey as soon as they are obtained. I hope that this survey proves a useful tool in the ongoing effort to provide quality in-service training for teachers of physical education.

Sincerely,

Richard A. Grooms
Assistant Professor

/u

Enclosures

APPENDIX C

LETTER TO PHYSICAL EDUCATOR

Tennessee State University
Department of Health, Physical Education
and Recreation

February 8, 1983

Dear Physical Educator:

The attached questionnaire is designed to assess your needs and interests in in-service staff development as they relate to physical education programming for exceptional children. Please take a few minutes to complete the questionnaire and return it by March 1 (if possible) to Mr. Howard Stubblefield, Coordinator of Physical Education, Metro Schools. (Return the questionnaire by school mail.)

Your cooperation in this endeavor is very important and will be greatly appreciated.

Sincerely,

Richard A. Grooms
Assistant Professor

/u

Attachment

APPENDIX D

FOLLOW-UP LETTER TO PHYSICAL EDUCATOR

Tennessee State University
Department of Health, Physical Education
and Recreation

March 15, 1983

Dear Physical Educator:

The attached questionnaire is designed to assess your needs and interests in in-service staff development as they relate to physical education programming for handicapped children. Please take a few minutes to complete the questionnaire and return it by April 1 (if possible) to Mr. Howard Stubblefield, Coordinator of Physical Education, Metropolitan Schools. (Return the questionnaire by school mail.)

Your cooperation in this endeavor is very important and will be greatly appreciated.

Sincerely,

Richard A. Grooms
Assistant Professor

/u

Attachment

APPENDIX E

SURVEY INSTRUMENT

A SURVEY OF TEACHER PREPARATION NEEDS ASSESSMENT
IN SPECIAL PHYSICAL EDUCATION

Instructions

This survey is designed to identify your training in physical education programs for exceptional students as they relate to the teaching of exceptional students. For this instrument, exceptional includes handicapped students as well as other exceptional students which you may serve.

Please select the most appropriate answer(s) to each of the following questions:

1. How many years have you been teaching?
 - 1) 1 year_____
 - 2) 2 to 4 years_____
 - 3) 5 to 9 years_____
 - 4) 10 or more years_____
 - 5) No prior experience_____

2. What is the highest degree which you now hold?
 - 1) No college degree_____
 - 2) Bachelor's degree_____
 - 3) Specialist degree_____
 - 4) Master's degree_____
 - 5) Master's degree plus some additional graduate work_____
 - 6) Master's degree plus all course work for doctoral degree_____
 - 7) Doctoral degree_____

3. If you have done graduate study, what was your major concentration?
 - 1) Physical Education_____
 - 2) Health and Physical Education_____
 - 3) Adapted Physical Education_____
 - 4) Special Physical Education_____
 - 5) Special Education_____
 - 6) Recreation_____
 - 7) Health_____
 - 8) Other (please specify)_____

4. Are you presently pursuing an advanced degree?
- 1) Yes _____
 - 2) No, but I intend to do so _____
 - 3) No, and I do not intend to do so _____
5. If your answer to question 4 was "yes," when do you take these courses toward the degree which you are pursuing? (Check all appropriate lines.)
- 1) Night classes _____
 - 2) Summer classes _____
 - 3) Classes taken on sabbatical _____
 - 4) Weekend classes _____
 - 5) Daytime classes not in above categories _____
6. At what level do you currently teach? (Check all appropriate lines.)
- 1) Elementary school _____
 - 2) Junior high school _____
 - 3) Senior high school _____
 - 4) School for the handicapped _____
 - 5) College or university _____
 - 6) Other (please specify) _____
7. How many college-level special education courses have you taken which deal with the teaching of exceptional students?
- 1) None _____
 - 2) 1-2 _____
 - 3) 3-4 _____
 - 4) Other (please specify) _____
8. How many college-level physical education courses have you taken which deal with the teaching of exceptional students?
- 1) None _____
 - 2) 1-2 _____
 - 3) 3-4 _____
 - 4) Other (please specify) _____
9. How many college-level physical education practicum courses have you taken which deal with the teaching of exceptional students?
- 1) None _____
 - 2) 1-2 _____
 - 3) 3-4 _____
 - 4) Other (please specify) _____

10. Approximately how many in-service training hours in physical education (not credit hours) for the exceptional student have you had between October 1, 1976, and August 15, 1982?
- 1) None _____
 - 2) 1-10 _____
 - 3) 11-20 _____
 - 4) Other (please specify) _____
11. Approximately how many in-service training hours in special education (not credit hours) have you had between October 1, 1976, and August 15, 1982?
- 1) None _____
 - 2) 1-10 _____
 - 3) 11-20 _____
 - 4) Other (please specify) _____
12. Where did you receive most of your preparation or training for involvement with exceptional students?
- 1) In-service workshops _____
 - 2) Undergraduate preparation or field work _____
 - 3) Graduate preparation or field work _____
 - 4) Other (please specify) _____
13. Are you presently working with any special needs students or handicapped children?
- Yes _____ No _____
14. How would you rate your formal training in physical education for the handicapped?
- 1) Very poor _____
 - 2) Poor _____
 - 3) Good _____
 - 4) Very good _____
15. Would you be interested in participating in an in-service training program designed to aid physical educators in acquiring the necessary knowledge, skills, and competencies as mandated by Public Law 94-142?
- Yes _____ No _____
16. If the answer to question 15 is "yes," please indicate below in order of your preference (1, 2, 3, 4, or 5 if

you add a topic) the type of in-service training you desire.

Tuition free in-service training program for graduate credit _____

In-service training program without credit _____

In-service workshops _____

In-service clinics _____

Other (please specify) _____

Each task listed below is reflective of a competency needed to effectively provide physical education for the handicapped as required under Public Law 94-142. Please indicate your present degree of proficiency for performing each task. Each competency should be rated using the following code:

- 0 No Knowledge and/or skill in the performance of the task.
- 1 Very Little Knowledge and/or skill but aware of the concept in the performance of the task.
- 2 Limited Knowledge and/or skill in the performance of the task: Knowledge and/or skill acquired through experience and professional preparation consisting of in-service workshops, reading of professional literature and a college course dealing with exceptional children.
- 3 Adequate Knowledge and/or skill in the performance of the task: Knowledge and/or skill acquired through experience and professional preparation consisting of at least two college courses in the area of physical education for the handicapped.
- 4 Superior Knowledge and/or skill in the performance of the task: Knowledge acquired through experience and professional preparation consisting of at least two college courses (theory) and at least one practicum college course in the area of physical education for the handicapped.

<u>Tasks</u>	<u>Present Level</u>
Task I: Demonstrate knowledge of Public Law 94-142 and its implications for physical education.	_____
Task II: Demonstrate knowledge of the nature of handicapping conditions in relation to the physical and motor capabilities of children.	_____
Task III: Demonstrate ability to assess functioning levels of individuals with handicapping conditions and design, organize, implement and evaluate an individualized, competency-based educational program in physical education for these children in the least restrictive environment.	_____
Task IV: Demonstrate ability to participate as a knowledgeable member of an interdisciplinary team involving school and community agencies to provide programs and services for the handicapped.	_____
Task V: Demonstrate ability to participate in selected practicum experiences commensurate with specialized needs and interests.	_____

COMMENTS:

The space below may be used for any comments which you might wish to make concerning your in-service training needs and interests.

YOUR PARTICIPATION IN THIS SURVEY IS APPRECIATED.

APPENDIX F

TABULAR ANALYSES

**An Analysis of the Number of Years
 in the Teaching Profession**

	<u>Number Observed</u>	<u>Number Expected</u>
2 to 4 years	9	34
5 to 9 years	31	34
10 or more years	62	34
Chi-Square = 41.71	p < .01	D.F. = 2

**An Analysis of the Highest
 College Degree Held**

College Degree	Number Observed	Number Expected
Bachelor's Degree	39	24.5
Specialist's Degree	6	24.5
Master's Degree	16	24.5
Master's Degree plus some additional graduate work	37	24.5
<div style="display: flex; justify-content: space-between;"> Chi-Square = 31.88 p < .01 D.F. = 3 </div>		

An Analysis of the Major Concentration in Which
Graduate Study was Done

Major Area	Number Observed	Number Expected
Physical Education	22	29
Health and Physical Education	36	29
Chi-Square = 3.38	p < .05	D.F. = 1

**An Analysis of the Extent to Which Advanced Degrees
 Are Presently Being Pursued**

Are you presently pursuing an advanced degree?	Number Observed	Number Expected
Yes	31	30.33
No, but intend to do so	29	30.33
No, and do not intend to so so	31	30.33
Chi-Square = .088	p < .05	D.F. = 2

**An Analysis of the Time That Courses Were Taken
 in Pursuing an Advanced Degree**

Time Taken	Number Observed	Number Expected
Night Classes	25	26
Summer Classes	27	26
<div style="display: flex; justify-content: space-between;"> Chi-Square = .077 p < .05 D.F. = 1 </div>		

**An Analysis of the Various Levels
Currently Taught**

Teaching Levels	Number Observed	Number Expected
Elementary School	59	32.67
Junior High School	16	32.67
Senior High School	23	32.67
<div style="display: flex; justify-content: space-between;"> Chi-Square = 32.59 p < .01 D.F. = 2 </div>		

An Analysis of the Number of College-level Special
 Education Courses Taken That Dealt with the
 Teaching of Exceptional Children

Number of Courses Taken	Number Observed	Number Expected
None	22	32
1-2	60	32
3-4	14	32
Chi-Square = 37.75	p < .01	D.F. = 2

An Analysis of the Number of College-level Physical
Education Courses Taken That Dealt With the
Teaching of Exceptional Students

Number of Courses Taken	Number Observed	Number Expected
None	23	32.67
1-2	61	32.67
3-4	14	32.67
<div style="display: flex; justify-content: space-between;"> Chi Square = 38.10 $p < .01$ D.F. = 2 </div>		

An Analysis of the Number of College-level Physical
 Education Practicum Courses Taken That Dealt
 With the Teaching of Exceptional Children

Number of Courses Taken	Number Observed	Number Expected
None	68	48
1-2	28	48
Chi-Square = 16.67	p < .01	D.F. = 1

**An Analysis of the Number of In-service Training Hours
 in Physical Education for the Exceptional Student
 Received Between October 1, 1976, and
 August 15, 1982**

Number of Hours	Number Observed	Number Expected
None	53	33.67
1-10	42	33.67
11-20	6	33.67
Chi-Square = 35.90	p < .01	D.F. = 2

**An Analysis of the Number of In-service Training Hours
 in Special Education Between October 1, 1976,
 and August 15, 1982**

Number of Hours	Number Observed	Number Expected
None	54	47
1-10	40	47
<div style="display: flex; justify-content: space-between;"> Chi-Square = 2.08 p < .05 D.F. = 1 </div>		

An Analysis of the Source of Preparation or
Training for Involvement with
Exceptional Students

Source of Preparation	Number Observed	Number Expected
In-service Workshop	13	28
Undergraduate Preparation or Field Work	52	28
Graduate Preparation or Field Work	19	28
Chi-Square = 31.5	p < .01	D.F. = 2

An Analysis of the Number Presently Working with
 Special Needs Students or Handicapped Children

Number Presently Working	Number Observed	Number Expected
Yes	69	49.50
No	30	49.50
Chi-Square = 15.36	p < .01	D.F. = 1

An Analysis of Ratings of Formal Training in
Physical Education for the Handicapped

Value of Rating	Number Observed	Number Expected
Very Poor	8	32.67
Poor	57	32.67
Good	33	32.67
Chi-Square = 36.76	p < .01	D.F. = 2

**An Analysis of Degree of Interest in Participating in an
 In-service Training Program Designed to Aid Physical
 Educators in Acquiring the Necessary Knowledge,
 Skills, and Competencies as Mandated by
 Public Law 94-142**

<u>Number Interested</u>	<u>Number Observed</u>	<u>Number Expected</u>
Yes	90	51
No	12	51
Chi-Square = 59.65	p < .01	D.F. = 1

An Analysis of the Order of Preference in the
Type of In-service Training Desired

Order of Preference	Number Observed	Number Expected
Tuition Free In-service Training Program for Graduate Credit	40	44
In-service Training Program Without Credit; In-service Workshops; and Clinics	48	44
Chi-square = .727	p < .05	D.F. = 1

An Analysis of Task One as It Relates to
Present Degree of Proficiency

Present Degree of Proficiency	Number Observed	Number Expected
No Knowledge	10	25
Very Little Knowledge	29	25
Limited Knowledge	42	25
Adequate Knowledge	19	25
Chi-Square = 22.64	p < .01	D.F. = 3

An Analysis of Task Two as It Relates to
Present Degree of Proficiency

Present Degree of Proficiency	Number Observed	Number Expected
Very Little Knowledge	24	32
Limited Knowledge	49	32
Adequate Knowledge	23	32
Chi-Square = 13.56	p < .01	D.F. = 2

An Analysis of Task Three as It Relates to
Present Degree of Proficiency

Present Degree of Proficiency	Number Observed	Number Expected
Very Little Knowledge	27	32.33
Limited Knowledge	47	32.33
Adequate Knowledge	23	32.33
<div style="display: flex; justify-content: space-between;"> Chi-Square = 10.23 p < .01 D.F. = 2 </div>		

**An Analysis of Task Four as It Relates to
 Present Degree of Proficiency**

Present Degree of Proficiency	Number Observed	Number Expected
No Knowledge	7	25
Very Little Knowledge	31	25
Limited Knowledge	46	25
Adequate Knowledge	16	25
<div style="display: flex; justify-content: space-between;"> Chi-Square = 35.28 p < .01 D.F. = 3 </div>		

An Analysis of Task Five as It Relates to
Present Degree of Proficiency

Present Degree of Proficiency	Number Observed	Number Expected
Very Little Knowledge	32	32
Limited Knowledge	49	32
Adequate Knowledge	15	32
Chi-square = 18.06	p < .01	D.F. = 2

BIBLIOGRAPHY

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