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ABSTRACT

To comply with the Education for the Handicapped Act, comprehensive needs assessments were conducted in Ohio relative to appropriate physical education programming in the least restrictive environment. Results from an assessment in an urban school district confirmed the belief that physical education teachers did not possess needed competencies and were in need of extensive professional development. This paper describes the inservice program which was carried out in 5 phases from January, 1989 to June, 1990 for 27 physical education teachers in the Cleveland City School District. Eight learning modules were completed in a series of on-site training workshops. Next, the teachers wrote a handicapped activity packet for each of the 114 handicapped students in the district physical education classes. In phase 3, activity packets were implemented from September to April. Evaluative information was collected and overall effects were determined based on handicapped students' change in motor proficiency and teachers' change in knowledge and attitude. In addition, an ethnographic examination of physical education in the district was conducted. Results of the program were disseminated through a policy workshop for selected school districts in Ohio. The eight learning modules used in the program are appended as well as a formative evaluation of the program. (JD)

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DESCRIPTION OF AN INSERVICE TRAINING MODEL TO PROVIDE  
APPROPRIATE MOTOR DEVELOPMENT FOR HANDICAPPED  
STUDENTS IN AN URBAN SCHOOL DISTRICT

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DESCRIPTION OF AN INSERVICE TRAINING MODEL TO PROVIDE

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Abstract:

Incident to PL 94-142, the Education for the Handicapped Act (EHA), comprehensive needs assessments were conducted in Ohio relative to appropriate physical education programming in the least restrictive environment. Results confirmed the belief that physical education teachers did not possess needed competencies. As a separate population, physical education teachers of the Cleveland City School District (CCSD) showed the need for extensive professional development. Two local foundations supported a proposal to develop, implement, and evaluate a model for continuous inservice training.

The inservice program was carried out in five phases from January, 1989 to June, 1990 for 27 physical education teachers of the CCSD. The program began with a series of on-site training workshops wherein eight learning "modules" were completed. Next, teachers wrote "Cleveland Handicapped Activity Packets" (CHAPs) for each of the 114 handicapped students who had been tested. In phase three, CHAPs were implemented from September, 1989 to April, 1990. Evaluative information was collected and overall effects were determined based on handicapped students' change in motor proficiency and teachers' change in knowledge and attitude. In addition, an ethnographic examination of physical education programming in CCSD was conducted. Finally, results of the inservice program were disseminated through a policy workshop for CCSD administrative personnel and a leadership conference for selected school districts in Ohio.

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DESCRIPTION OF AN INSERVICE TRAINING MODEL TO PROVIDE  
APPROPRIATE MOTOR DEVELOPMENT FOR HANDICAPPED  
STUDENTS IN AN URBAN SCHOOL DISTRICT

Introduction

All handicapped students have been assured of a free, appropriate public education which includes special education and related services that are necessary to meet their unique needs. Professional educators and schools, in general, have had since 1977 to comply with PL 94-142, the Education for the Handicapped Act (EHA).

Often overlooked or neglected in the law has been the fact that physical education (motor development) is to be a major part of each handicapped student's education. The Education for the Handicapped Act Amendments of 1986 (PL 99-457) was passed which reauthorized discretionary programs under the Act. As with its predecessor, the new Act defines special education as including instruction in physical education. Additional impetus for mandated physical education has been provided by PL 99-457 with special attention given to secondary education and transitional services and programs for handicapped youth. Among other program priorities, emphasis will be directed toward: "Specifically designed physical education . . . programs to increase the potential of handicapped youths for community participation" (Section 626.B.10). Physical education continues to be the only curricular area specifically mentioned in the law. Nevertheless, it continues to receive, at best, only token attention in public schools.

PL 94-142 (now PL 99-457) clearly focuses attention on the

Individual Education Plan (IEP). The IEP specifies that a program must be designed to meet an individual's unique educational needs; in the case of physical education, motor needs. Likewise, it implies that professionals should possess, or acquire, the knowledge, skills, attitudes, and values necessary to implement the IEP process in the most effective means possible and within the **least restrictive environment**.

The least restrictive environment is the phrase used to refer "to the educational environment providing the maximum appropriate interaction with non-handicapped students where education for the handicapped child can be achieved consistent with appropriate objective criteria and evaluation procedures specified in the IEP" (Office of Special Education and Rehabilitative Services, 1985). Implicit in this statement is the acknowledgement that not only the development and implementation of the IEP but also the establishment of a continuum of placement alternatives is crucial to the education of handicapped students.

### Background

In 1980, these investigators (Loovis & Melograno, 1981; Melograno & Loovis, 1982) conducted a comprehensive needs assessment in Ohio relative to the provisions for appropriate physical education programming incident to PL 94-142. More specifically, the study attempted to ascertain the educational needs of elementary and secondary public school physical education teachers. Several dimensions of perceived teacher needs in relation to physical education for learners with

disabling conditions were studied.

Nine hundred and fifty physical educators were randomly selected and surveyed, from which 241 (25%) questionnaires were returned. Without dissecting the entire study, several significant findings are worth mentioning:

- Only 7% of the teachers who responded had had any involvement in the decision making process as it related to placement of students with handicapping conditions. This is noteworthy for a curricular area that is specifically delineated as part of students' special education.
- Teachers demonstrated significant misunderstanding as it related to knowledge of PL 94-142. For example, 63% thought that an adapted physical education placement had to be provided for each handicapped student.
- A majority of teachers indicated a general need for assistance in conducting motor behavior assessments. This is significant in light of the provision for assessment prior to placement in the least restrictive environment.
- Respondents' positive attitude was evident when as a group, 63% of the teachers felt at least "favorable" toward teaching students with a variety of handicapping conditions. This positive attitude was lessened since only 36% of the teachers were at least "somewhat interested" in teaching handicapped students compared to teaching non-handicapped students.

All things considered, results of this study confirmed the belief

that teaching professionals did not possess the curricular and/or instructional competencies necessary to conduct physical education in the least restrictive environment incident to the federal legislation.

Enactment of PL 99-457 in 1986 provided an opportunity for these investigators to attend to an ongoing research agenda designed to assess the status of physical education and handicapped students in Ohio. Ten years had elapsed since implementation of PL 94-142 and eight years had passed since the 1980 study. Therefore, it was timely to conduct a 1988 follow-up study.

The purpose of the follow-up study was the same as the original study; i.e., to conduct a comprehensive needs assessment in Ohio relative to the provisions for appropriate physical education programming for handicapped students incident to PL 94-142 and PL 99-457 (Loovis & Melograno, 1988; Melograno & Loovis, 1988). More specifically, the follow-up study was designed to determine the current educational needs of elementary and secondary public school teachers. In addition, the study was designed to permit comparison of existing practice with what was determined to be prevalent practice in 1980 (Loovis & Melograno, 1989; Melograno & Loovis, 1989).

Eight hundred and thirteen physical educators were randomly selected and surveyed, from which 242 (30%) questionnaires were returned. The sample was drawn from the same counties and school districts in the 1980 study. The 1988 survey produced several significant results. The extent to which they correspond to those salient findings referred to from the 1980 study clearly



permit drawing conclusions about the status of physical education for handicapped students in the state of Ohio. Comparisons were thought to be important to ascertain if physical education for students with handicapping conditions had improved, stayed the same, or become worse. Findings worth mentioning include:

- Over 82% of the teachers who responded still had not been involved in the decision making process as it relates to placement of students with handicapping conditions. Again, this is significant since physical education is specifically delineated as part of students' special education.
- A majority of teachers continued to demonstrate a misunderstanding of PL 94-142. It was still thought (54%) that an adapted physical education placement must be provided for each handicapped student.
- With respect to motor behavior assessment, over 75% of teachers indicated a general need for assistance. Even in terms of physical/motor fitness testing, only 51% of the teachers revealed any confidence in their ability to carry out such an assessment.
- Inconsistency between "attitude" vs. "interest" continued to exist. Although 60% of the teachers felt at least "favorable" toward teaching students with a variety of handicapping conditions, only 35% of the teachers were at least "somewhat interested" in teaching handicapped students compared to teaching non-handicapped students.

As a separate population within the follow-up study, the 141 physical educators of the Cleveland City School District were

surveyed, from which 55 (39%) questionnaires were returned. Analysis of the data indicated that Cleveland physical education teachers reflected a profile similar in nature to teachers throughout the state. Since over 75% of the Cleveland teachers reported that handicapped students (range 1 to 40) participate in their classes, then the following results were noteworthy:

- Nearly 85% of the responding teachers had not been involved in the decision making process to place students with handicapping conditions.
- Only 50% of the teachers understood the provisions for compliance with PL 94-142 (funds, placement, assessment, and due process).
- Over 77% of the teachers indicated a general need for assistance in conducting motor behavior assessments.
- While 58% of the teachers indicated a positive attitude toward teaching students with a variety of handicapping conditions, only 36% of the teachers were at least "somewhat interested" in teaching handicapped students compared to teaching non-handicapped students.
- Nearly 61% of the teachers had not received encouragement and support from their administration.
- Over 75% of teachers believed that handicapped students are excluded or limited from full participation in regular physical education due to their functional ability and/or nature of their handicap.
- Over 60% of the teachers had not interacted with medical and allied medical professionals. In addition, only 28% interacted on an average of only 1 to 2 times per year.

### Overview of Model

Given the aforementioned results, it was clear that the physical education teachers of the Cleveland City School District were in need of extensive, continuous professional development (inservice training) relative to the provision of appropriate motor development and fitness opportunities for handicapped students. Therefore, a proposal was written to meet these needs and consequently, the Cleveland Foundation and the George Gund Foundation funded the inservice project to be described.

The philosophy underlying this effort was that the continuing professional development of school personnel to provide physical education to handicapped students in the least restrictive environment was best achieved through a collaboration between a school district and an institution of higher education. As such, the delivery of continuous professional development activities required a plan or model which could be systematically implemented and evaluated. Several features have historically been associated with the effective delivery of inservice training (Division of Educational Redesign and Renewal, 1978). These include, but are not limited to:

- Most inservice activities should take place in natural school settings.
- Experiences that provide repeated short-term practice are preferable to single episodes.
- Teachers should "teach" one another; capitalize on teachers' abilities.
- Teachers should acquire the skills to accurately assess the quality of their performance.

The purpose of this project was to provide professional development for physical education personnel relative to appropriate motor programming for handicapped students, incident to PL 94-142 and PL 99-457. This project was significant in light of the 7,539 handicapped students that were being served in the Cleveland City School District. This figure is even more significant since it represented more than 33% of the total population (22,444) of handicapped students served by public schools in Cuyahoga County as of December 1, 1987 (Fox, 1988).

Validation of the model as an appropriate method for the provision of continuous professional development established a rationale for extending the project to include those unserved physical educators and other personnel who in some manner affect the delivery of physical education to students with handicapping conditions. With the previous purpose statement in mind, the principle goal of the project was to:

DEVELOP, IMPLEMENT, AND EVALUATE A MODEL FOR CONTINUOUS PROFESSIONAL INSERVICE OF PHYSICAL EDUCATION PERSONNEL TO PROVIDE APPROPRIATE MOTOR DEVELOPMENT EXPERIENCES FOR HANDICAPPED STUDENTS IN ELEMENTARY, MIDDLE, JUNIOR HIGH, AND HIGH SCHOOLS.

Given the previously identified needs, it was believed that the professional development (inservice) of these school personnel was best achieved through the collaborative design exemplified by this proposed project (i.e., university-school partnership). In order to accomplish the principle goal, the inservice program was focused around five major objectives. Upon successful completion of all project activities, physical

education teachers were to:

1. Know and understand their personal and professional responsibilities incident to PL 94-142 and other related federal and state legislation.
2. Value persons with disabilities and advocate for their rights, at the very least, in terms of the provision of physical education in schools.
3. Possess skills and knowledges to select, analyze, and interpret appropriate assessment instruments for use in evaluating the motor development of students with handicapping conditions.
4. Seek out and become involved in the multi-disciplinary staffing process including development of appropriate placements and the design of the IEP.
5. Link the knowledge obtained from the assessment process with student needs as reflected in the development of appropriate long range goals and short term instructional objectives that can be evaluated on a yearly basis at the least.

The proposed inservice program was carried out in five distinct phases from January, 1989 to June, 1990. Within this time frame, 27 elementary and secondary physical education teachers from the Cleveland City School District:

- Completed eight, extensive learning "modules" through a series of training workshops.
- Identified and tested individual handicapped students representing a range of handicapping conditions.

- Participated in a "Program Development Institute;" designed Cleveland Handicapped Activity Packets (CHAPs) for identified handicapped students.
- Implemented a comprehensive motor program (CHAPs) for each of the identified handicapped students.
- Conducted post-tests on the identified handicapped students.

The inservice participants were selected from among the 141 physical education teachers of the Cleveland City School District. The criteria for selection included: (1) two years experience in the Cleveland City School District, (2) successful teaching performance as determined by the Directing Supervisor, Office of Physical Education, (3) commitment to programming for handicapped persons as revealed by letter of application, (4) availability during all phases of the inservice program, and (5) willingness to develop and implement a motor program for handicapped students. In addition, final selection considered the school level represented by the teacher. Equal representation was sought from the elementary, middle, junior high, and high school levels.

To assist the program co-directors, a Liaison Committee was formed that was comprised of an elementary physical educator, secondary physical educator, elementary principal, secondary principal, and the directing supervisor for physical education. The Liaison Committee assisted with arranging the workshop activities, facilitating the "Program Development Institute," and monitoring (informally) the implementation phase.

### Inservice Program Phases

This section provides detailed information regarding the separate phases of the inservice training program. The phases are presented in sequential order.

#### Training Workshops

Program participants completed the learning "modules" from January to June, 1989 through a combination of on-site training workshops and in-school activities. These "modules" covered the following aspects: (1) understanding PL 94-142, (2) attitude, (3) assessment, (4) least restrictive environment (LRE), (5) planning, implementing, and evaluating (PIE), (6) collegiality, (7) individual education plan (IEP), and (8) teacher behavior analysis. Information regarding each of these modules is provided in Appendix A.

The teachers were released for seven all-day training workshops held at various schools including a school for multihandicapped students. The highlights from this first phase were:

1. Entry level knowledge and attitudinal data were collected on each teacher.
2. An understanding of teachers' personal and professional responsibilities was acquired with reference to PL 94-142 and other related federal and state laws.
3. Training in the administration and interpretation of the Bruininks-Oseretsky Test of Motor Proficiency (Bruininks, 1978) was received; small groups of teachers were responsible each for presenting one component of the test to the other teachers; "practice"

testing was conducted in one of the schools using students with a range of handicapping conditions.

4. Knowledge and skill competencies associated with the IEP (Individual Education Plan) process were developed; IEP conferences were simulated.
5. Handicapped students (n = 114) in each of the individual schools represented by the teachers were identified and pre-tested.
6. Priority issues and concerns were expressed and ranked by teachers using the nominal group technique (NGT).

#### Program Development Institute

Teachers' ability to select, analyze, and interpret assessment data for use in designing appropriate motor programming was fostered during the next phase. In Summer, 1989, a program development institute was held where teachers wrote "Cleveland Handicapped Activity Packets" (CHAPs) for each handicapped student who had been pre-tested. The CHAPs were critically analyzed by the project co-directors and by other teachers in the project. CHAPs were refined in preparation for implementation during the forthcoming school year (1989-90). The instructional prerequisites, learning activities, and outcomes of the institute were:

#### Prerequisites

Teachers who were able to:

1. Specify the characteristics of handicapped students
2. Recognize a variety of assessment instruments
3. Establish appropriate placements
4. Access curricula materials and support services



5. Identify how handicapped students acquire motor skills
6. Use a compliance checklist
7. Analyze their own and others teaching behavior

#### Learning Activities

Teachers:

1. Completed readings that overview the design, development, organization, and administration of a physical education program for handicapped students
2. Engaged in small group activities to develop a step-by-step process for instituting physical education for handicapped students
3. Designed a comprehensive physical education program for handicapped students that meets all appropriate criteria

#### Outcomes

Teachers:

1. Implemented their physical education program for handicapped students in their school setting
2. Evaluated their own and others physical education program for handicapped students

In addition, a workshop was held that focused on behavior management techniques appropriate to adapted physical education settings and regular physical education settings where handicapped and non-handicapped students are integrated (e.g., use of small groups for reciprocal learning tasks). Attention was given to data collection techniques to achieve individual management goals (e.g., event recording, time sampling). At that time, mid-project knowledge and attitudinal data were collected on each teacher.

### Implementation of CHAPs

During this third phase, implementation of CHAPs occurred between September, 1989 and April, 1990. Project co-directors observed the teachers and handicapped students during the CHAPs learning experience. Teachers were supported in their efforts and provided with constructive feedback in line with the philosophy of field-based inservice education. In addition, contact with teachers was fostered and maintained through a newsletter which offered self-help suggestions and activities.

A final workshop was held for teachers in June, 1990. An opportunity was afforded for teachers to share their experience with each other in terms of CHAPs implementation, classroom management strategies, instructional skills development, and interaction with handicapped students. At that time, post knowledge and attitudinal data were collected that permitted comparative analysis with pre- and mid-project data.

### Evaluation

The general effectiveness of the inservice program was determined through use of the CIPP (context, input, process, and product) evaluation model (Stufflebeam, 1968). In terms of context evaluation, the need for the proposed inservice program had been clearly established. A discrepancy existed in the Cleveland City School District between the desired and actual conditions for the delivery of motor development programs for handicapped students.

Because of the direct functional relationships among the input, process, and product categories, they served as the framework for detailing the learning "modules." Thus, the eight modules

presented in Appendix A include:

Input - Prerequisite or entry level competencies that facilitated achievement of module objectives

Process - Learning experiences/activities that provided the means by which module objectives were sought

Product - Specific competencies that were to be acquired as a result of active participation in the module

Evaluation of a formative nature has been described with reference to the input, process, and product variables specified in the learning "modules" and the Program Development Institute. Continuous feedback to the participants was an integral part of the proposed inservice program. Clearly, the interim effects of the inservice program can be judged, given the projected product criteria. With regard to the training workshops, collected formative evaluation data are summarized in Appendix B. Results were considered highly positive. The Program Development Institute was also evaluated using the questionnaire that appears in Appendix B. On a four-point scale with four being highest, participants (n = 24) responded at an average of 3.32. This average rating was considered highly favorable.

Oftentimes, with inservice programs, an evaluation of the overall effects is forgotten or neglected. Critical to the purpose of this project was an evaluation of program effects in reference to: (1) change in teachers' knowledge and attitude and (2) change in motor proficiency among the handicapped students as a result of implementation of appropriate programming (CHAPs).

In terms of knowledge, teachers were assessed using a ten-item inventory developed by the project co-directors.

Teachers who scored "low" at the beginning of the project showed a gain from pre- to post-project of nearly 61% in knowledge scores. Most of this gain (nearly 48%) occurred between pre- to mid-project. Teachers who scored "high" at the beginning of the project remained about the same throughout. In terms of attitude, teachers who were "low" at the beginning of the project showed favorable change from pre- to post-project of nearly 25% on the Attitudes Toward Disabled Persons scale (Yuker, Block, & Young, 1970). Changes from pre- to mid- and from mid- to post- was nearly the same. Teachers who were "high" at the beginning of the project remained about the same throughout the project.

Post-testing of each handicapped student using the Bruininks-Oseretsky Test was conducted during May, 1990. Overall, handicapped students showed nearly a 6% gain in motor proficiency from pre-test to post-test.

During the entire project, an ethnographic examination of the culture of the physical education program in the Cleveland City School District was conducted relative to teaching handicapped students. An attempt was made to ascertain the impact of select macro (e.g., state definition of adapted physical education) and micro (e.g., commitment of funds by district) influences on the outcomes of the inservice program. Interviews held with teachers, principals, central administrators, parents, and students yielded the following generalizations:

1. Physical education (more specifically, adapted physical education) is not a priority according to persons in charge of special education in the CCSD.

2. Principals are key variables; where successful programs are operating, there are effective principals behind the scenes providing support and encouragement to physical educators.
3. The 25% policy (i.e., no more than 1/4 of any self-contained class of handicapped students can be integrated into a special subject area like physical education at one time) is differentially interpreted by administrators and teachers; the district should clarify its union agreement.
4. The establishment of adapted physical education placements is difficult based upon the district's current procedures for scheduling such classes; it is, however, not impossible.
5. Funding for an adapted physical education unit (APEU) is not a priority (see #1 above); however, cost projections would seem to indicate that the district should be able to find sufficient monies to defray the salary and related costs of at least one APEU.
6. Is physical education part of the problem? In some respects, the answer is "Yes."
7. Severely handicapped students are not the only students requiring adapted physical education; a prevalent belief in the district is that orthopedically handicapped students are the only participants in this kind of physical education experience.
8. The submission and recording of grades in physical education for students who were to receive specifically

designed physical education and who did not receive the program was encouraged by special education teachers' supervisor as a way of avoiding additional noncompliance edicts.

9. The district's physical education program for handicapped students continues in noncompliance with the most recent Ohio Department of Education program evaluation.

### Dissemination of Results

In terms of disseminating the results of the inservice project, recommended aspects of the model were determined based on evaluation results. These aspects were presented to two groups; namely, administrators and supervisory personnel of the Cleveland City School District and appropriate personnel (e.g., teachers, supervisors, and administrators) from school districts in Cuyahoga County and other urban school districts in Ohio. Two independent dissemination activities were completed, respectively.

### Policy Workshop

During the ongoing inservice training program, teachers were exposed to a two-stage nominal group technique (NGT). The NGT was utilized in an attempt to focus on and prioritize policy issues and concerns as perceived by the teachers. In stage one, two independent groups generated their top 10 policy issues. Subsequent to stage one, the two lists were combined to form a list of 18 policy issues and concerns. Stage two consisted of all teachers using the combined list as the basis for another round of NGT. The result of this stage was a list of the 10 most

agreed upon issues and concerns facing the district - at least in the opinion of teachers who participated in the inservice program. The list appears in Appendix C. As a result of this NGT process, it was the intent of the co-directors to engage administrative and supervisory personnel of the Cleveland City School District in a policy clarification and adoption activity. This activity, in the form of two half-day workshops, related to physical education for handicapped students pursuant to The Education of the Handicapped Act (EHA). In early June, 1990, a select group of school personnel (n = 16) was led through a process referred to as Interpretive Structural Modeling (Moore, 1987). This process (ISM) is "a method of identifying and summarizing relationships among specific items that define an issue or problem. ISM provides a means by which a group can impose order on the complexity of the items." It was anticipated that once the administrative and supervisory personnel had gone through the ISM process, it would be easier to clarify district policy related to handicapped students in physical education. Furthermore, it was expected that policies would be adopted that would permit the school district to be in compliance with EHA. The policy issues and concerns generated by teachers served as the basis for this process. As a result, the group of administrators ranked the issues/concerns as follows (1 = highest rank):

1. Adequate budget
2. PE specialist full time in each elementary school
3. Assessment schedule and materials for the district
4. Follow 25% policy in physical education

5. Develop task force for policies regarding PE and the handicapped
6. Class size
- 7.5. Mandatory assessment by qualified personnel before placement
- 7.5. Handicapped students in smaller classes
9. Inservice provided for principals and staff (e.g., counselors, classroom teachers, and aides)
- 10.5. Written curriculum for the handicapped
- 10.5. Adapted training for all PE and teaching staff
12. Stop prostituting PE for the sake of teachers' planning period
13. Time for special classes (adapted physical education for students whose needs cannot be met in the regular program)

#### Leadership Conference

A leadership conference on "Providing Appropriate Motor Development for Handicapped Students: A Model for Inservice Training That Works" was designed and presented in late June, 1990 to representatives invited from school districts in Cuyahoga County and urban school districts of Ohio; namely: Akron, Cincinnati, Columbus, Dayton, Toledo, and Youngstown. Each of these districts participated in the 1980 and 1988 state-wide needs assessments. Therefore, a profile on each urban school district was available describing the status of physical education programming for handicapped students. This information combined with the summative evaluation results offered an exceptional opportunity to provide direction and service to the



other urban areas of Ohio. The conference was attended by 23 persons representing 13 school districts in Cuyahoga County and four urban school districts in Ohio. The diversity of the group was evident relative to role and responsibilities including: pupil personnel director, special education supervisor, assistant superintendent, department chair, coordinator of special services, school psychologist, adapted physical education consultant, adapted physical education supervisor, and physical education teacher. Participants provided an evaluation of the conference through an eight-item questionnaire. On a four point scale, with four being highest, the mean rating was 3.1.

### Conclusions

Given the evaluative data (teacher change and handicapped student change) and dissemination activities (administrative policy workshop and leadership conference), the inservice program described was considered highly successful. With respect to the inservice model, the following conclusions are offered:

1. In the future, participants must be carefully screened not only for their intentions, but also for their long term commitment to such a project.
2. Training is expensive; one suggestion is to provide fewer sessions and conduct them for a longer period of time (e.g., 8:00 a.m. to 5:00 p.m. instead of a normal school day).
3. Assessment and program development must be for those students for whom continuity of programming can be assured (i.e., if the student-change component of the

model is considered valid, then teachers must guarantee, within reasonable limits, that those students who are selected will be available to them during the entire project).

4. Teachers' attitudes were either uniformly high or increased as a result of training.
5. Teachers' knowledge increased as a result of training.
6. Data indicate that students' motor proficiency improved as a result of what teachers learned in the inservice program.

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Appendix A

Learning Modules

## LEARNING MODULE 1

### Understanding PL 94-142

#### Input

Teachers who are able to:

1. Identify the salient aspects of PL 94-142 and associated legislative pronouncements.
2. Distinguish between the concepts of mainstreaming and least restrictive environment.
3. Understand that compliance is not elected; rather, it is expected.

#### Process

Teachers will:

1. Complete readings which will introduce PL 94-142 including the concept of least restrictive environment (LRE).
2. Engage in brainstorming activities to determine viability of LRE in physical education.
3. Discuss issues pertinent to school district compliance.
4. Administer the compliance checklist in their school.

#### Product

Teachers will be able to:

1. Define their responsibilities as they relate to PL 94-142.
2. Operationalize LRE in their own professional situation.
3. Interpret the results of the completed compliance checklist along with a plan for bringing areas of weakness in line with expected practice.

## LEARNING MODULE 2

### Attitude

#### Input

Teachers who are able to:

1. Become aware of their attitudes toward disabled persons.
2. Consciously attend to and express their feelings toward disabled persons.
3. Express their preferences toward disabled persons in an attitude survey.

#### Process

Teachers will:

1. Complete readings which expose them to examples of persons with disabilities who have achieved status as sportspersons.
2. Discuss the difference among the terms handicapped, disabled, and impaired.
3. Read The Acorn People by R. Jones.
4. View "Wheelin' Steel" and/or "Victory."
5. Experience a significant emotional interaction with a disabled person.

#### Product

Teachers will be able to:

1. Value disabled persons more readily than prior to the start of the inservice experience.
2. Increase their attitude favorably (quantitative index) as measured by a standard attitude inventory administered on a pre- and post-test basis.

## LEARNING MODULE 3

### Assessment

#### Input

Teachers who are able to:

1. Identify the domains of motor development and proficiency.
2. Interpret the requirements of PL 94-142 as they relate to establishing the student's current level of educational performance.
3. Identify valid and reliable tests for use in physical education.

#### Process

Teachers will:

1. Complete readings designed to familiarize them with environmental concerns affecting motor assessment.
2. Analyze tests either individually or in small groups.
3. Demonstrate all or select portions of tests.
4. Discuss test assessment/interpretation.

#### Product

Teachers will be able to:

1. Administer at least one instrument in each domain.
2. Identify tests as norm-referenced or criterion-referenced.
3. Interpret the results of one test and provide the written report including recommendations for remediation of weaknesses.



## LEARNING MODULE 4

### Least Restrictive Environment (LRE)

#### Input

Teachers who are able to:

1. Distinguish between mainstreaming and LRE.
2. Choose appropriate assessment instruments and interpret test results reliably.
3. Understand the nature and structure of multi-disciplinary staffing (MDS).

#### Process

Teachers will:

1. Complete readings pertaining to the establishment and practicability of placement alternatives in physical education.
2. Discuss the pros and cons of placement alternatives as viewed from the perspective of the multi-disciplinary staff conference.
3. Analyze case studies to determine appropriate placement.
4. Determine if impediments exist relative to the establishment of placement alternatives and what can be done to alleviate problems which result from a need to provide these alternatives.
5. Engage in simulated MDS conferences.
6. Participate in MDS conferences as an observer.

#### Product

Teachers will be able to:

1. Operationally define and provide concrete examples of LRE.
2. Develop appropriate placements based upon assessment data and justify the need for such placements.
3. Develop in conjunction with their school principal workable placement alternatives.
4. Participate in a MDS as a staff member.

## LEARNING MODULE 5

### Planning, Implementing, and Evaluating

#### Input

Teachers who are able to:

1. Identify basic principles that provide the framework for designing instructional units and/or courses.
2. Transform content goals into precise educational objectives representing cognitive, affective, and psychomotor learning.
3. Interpret pre-assessment learning data as a basis for individualized programming and intervention.
4. Devise meaningful learning experiences appropriate to the attainment of stated objectives.
5. Develop valid evaluation procedures that reflect a full description of cognitive, affective, and psychomotor behavior.

#### Process

Teachers will:

1. Review and appraise curriculum materials and the systematic approach to planning, implementing, and evaluating.
2. Engage in selected group activities for the purpose of exchanging ideas and reaching common goals.
3. Complete a series of self-directed problem solving tasks that correspond to the process of planning, implementing, and evaluating.
4. Construct evaluation instruments according to known principles and accepted concepts of assessment through small group interaction.
5. Interpret and analyze evaluation report information (case studies) including pre- and post-assessment.

Product

Teachers will be able to:

1. Analyze content goals in terms of level of difficulty and essential sequencing.
2. Collect pre-assessment information that reveals entry learning levels.
3. Utilize various instructional strategies that satisfy the qualities of individualization and mastery learning.
4. Apply evaluation design and measurement principles in situation that demand their use.
5. Formulate data collection instruments that serve as a basis for evaluating learning.

## LEARNING MODULE 6

### Collegiality

#### Input

Teachers who are able to:

1. Recognize the value of professionals working together toward a common goal.
2. Modify behavioral role, as necessary, for the purpose of interacting with others involved in the education of disabled persons (i.e., parents, other physical educators, special educators, principals, allied medical personnel).
3. Accept the need among professionals for providing and receiving feedback incident to the motor development of disabled persons.

#### Process

Teachers will:

1. Review and analyze the range of interpersonal skills for dealing with others on matters related to the motor development of disabled persons.
2. Examine professional role and responsibilities through reciprocal and small group interactions.
3. Role play the persons involved in all aspects of programming including the disabled person, parent, and physical educator.
4. Practice the use of certain patterns of behavior such as: provide diagnostic feedback, describe past feelings, express negative feelings, receive individual feedback, create confrontations, and establish helping relationships; use these processes in simulations.

Product

Teachers will be able to:

1. Readily accept constructive feedback.
2. Provide constructive feedback.
3. Collect evaluative/feedback data about other teachers;  
receive evaluative/feedback data from other teachers.
4. Openly explore with others, ways to include, adjust, or  
eliminate aspects of programming and/or personal behavior  
requiring change.

## LEARNING MODULE 7

### IEP Development

#### Input

Teachers who are able to:

1. Assess and determine the LRE for handicapped students in physical education.
2. Analyze content goals in terms of level of difficulty and essential sequencing.
3. Utilize various instructional strategies that satisfy the qualities of individualization and mastery learning.

#### Process

Teachers will:

1. Complete readings which introduce the prescriptive-teaching process.
2. Survey extant curricular resource materials with special emphasis on programs which have been approved by the National Diffusion Network.
3. Complete a series of self-directed problem solving tasks that correspond to the development of the physical education portion of a student's IEP.
4. Interpret and evaluate sample IEPs for correspondence between the method of assessment used and the nature of goals and instructional objectives generated.

#### Product

Teachers will be able to:

1. Use assessment data as a basis for the development of IEPs.
2. Design a learning curriculum or make appropriate decisions about how to use an existing curriculum; that is, teacher made or commercially available.
3. Analyze instructional sequences (task analyze) to accommodate all learners.
4. Plan and evaluate learning activities and teaching strategies as they reflect accomplishment of the goals and objectives presented in a student's IEP.

## LEARNING MODULE 8

### Teacher Behavior Analysis

#### Input

Teachers who are able to:

1. Identify a full range of alternative teaching styles.
2. Develop instructional materials appropriate to teaching style (e.g., task cards, check lists, individual programs).
3. Demonstrate positive, indirect teaching behaviors (e.g., praising, providing feedback, questioning, reinforcing).
4. Value the need to analyze teaching behavior appropriate to teaching styles and modes of learning.

#### Process

Teachers will:

1. Read and analyze selected materials to enrich and expand the understanding of teacher behavior analysis.
2. Complete a series of self-analysis instruments that correspond to the "spectrum" of instructional skills.
3. Engage in presentations/discussion dealing with observer systems, management skills, teaching styles, and modes of learning.
4. Participate in microteaching sessions in order to master, separately or in combination, the technical/instructional skills representing the active phase of teaching.
5. Code and analyze two lessons that have been videotaped.
6. Collect baseline data on selected teacher/student behaviors.

Product

Teachers will be able to:

1. Recognize the known qualities of effective teachers in terms of organization, classroom climate/management, and teaching behavior.
2. Describe and demonstrate a "spectrum" of instructional skills as they relate to a specified teacher role.
3. Apply techniques of systematic observation to teacher and student behavior in order to reduce discrepancies between planned and actual teaching behavior.
4. Utilize management skills that increase percentage of:  
(a) time spent in productive behavior and active learning,  
(b) self-management behavior in students, and (c) use of positive motivational management techniques.
5. Modify teaching behavior to satisfy a specified model.



Appendix B

Formative Evaluation

PROVIDING APPROPRIATE MOTOR DEVELOPMENT  
FOR SCHOOL-AGED HANDICAPPED STUDENTS

Formative Evaluation Results (5/4/89)

1. What aspects thus far represent the strong points of the project?

Topics/activities very informative (14)	Highly organized
Purpose	Presenters are "fantastic"
Format (3)	Meeting weekly (continuity) (2)
Brainstorming/discussion (3)	Videotape (3)
Practicality	Testing/assessment (5)
Explanation of PL 94-142 (2)	Agenda sheets
Teaching styles (6)	Interest of experienced people
Actual experiences (3)	Handouts
Instructors	All aspects
Very flexible/relaxed (4)	Interactions (3)
Leadership style	Identification of handicapping conditions

2. What aspects thus far need to be improved?

Better communication with school board	Technical aspects of actual implementation
Categories of handicapping conditions	People should arrive on time (4)
More involvement of instructors	Correct administrative problems
LRE	Teachers should be required
More in depth information	Build more time for policy issues
IEP	Adjusting teaching style
Involvement of all schools	Clarify B-O Motor Test
More activities with handicapped students	Administrators present
	Digression from topic (time) (2)

3. What topics that have already been covered need further clarification and/or additional attention?

IEP (4)	Tests for specific handicaps (2)
Appropriate programming for middle schools	Hands-on with disabled kids (2)
Writing goal objectives (3)	Placement
Testing procedures	More demonstrations
Integration in regular class	Lessons for adapted program
Basic law	Liability (2)
Adaptive activities (5)	Techniques (role play) to use with principal to enforce 25% rule
Material on B-O Motor Test	Objectives writing for self-directed modules
Analyzing test data	

4. What topics and/or activities should be included in the future?

S/T participation	All PE teachers should participate
More films	Policies on testing
Adaptive activities (2)	Techniques for working with handicapped (2)
Handicapping conditions (3)	Other tools for assessment
Time for special needs	Split elementary and secondary
Session with powers-to-be on policy/attitudes	

5. In general, what are your overall impressions of the project so far?

Very informative (8)	Well conducted
Good (2)	Very good
Has alleviated fears	Enjoying this (2)
Interesting (2)	Chance to hear from others (2)
Very necessary	Learning environment is great
Happy to be part of project (4)	Worthwhile program
Have become more interested in handicapped	Great (4)
Indeed educational	Super/fantastic
Need to go beyond surface	Impressed
Professionally - very good	Learning alot
Personally - very enjoyable	Excellent (3)
Great - I love it	Well organized

PROVIDING APPROPRIATE MOTOR DEVELOPMENT  
FOR SCHOOL-AGED HANDICAPPED STUDENTS

Summer Development Institute (SDI) Evaluation

The purpose of this evaluation is to determine the effects of the Summer Development Institute only. The information collected will be summarized and reported to the Ohio Department of Education. Evaluation information of this nature is required for all approved programs granting continuing education credits to teachers. Your willingness to provide feedback is appreciated. Please respond to the statements below in terms of your level of agreement. Place the appropriate letter in the space provided for each statement as follows:

- (A) STRONGLY AGREE
- (B) AGREE
- (C) DISAGREE
- (D) STRONGLY DISAGREE

- \_\_\_\_\_ 1. Overall, the SDI offered material that seemed worthwhile.
- \_\_\_\_\_ 2. The SDI was taught poorly.
- \_\_\_\_\_ 3. The SDI was effectively organized and taught.
- \_\_\_\_\_ 4. The SDI did not hold my interest.
- \_\_\_\_\_ 5. The development of CHAPs was a valuable experience for me.
- \_\_\_\_\_ 6. The SDI demanded too much outside work.
- \_\_\_\_\_ 7. Compared to other instructors, these instructors were outstanding.
- \_\_\_\_\_ 8. Ideas and concepts were developed too vaguely.

COMMENTS:

Appendix C

Policy Issues and Concerns

POLICY ISSUES/CONCERNS

"10 Most Wanted"

1. Compliance with PL 94-142
  2. Written curriculum for the handicapped
  3. Adapted training for all PE and teaching staff
  4. Adequate budget
  5. Mandatory assessment by qualified personnel before placement
  6. PE specialist full-time in each elementary school
  7. Develop task force for policies regarding PE and the handicapped
  8. Handicapped students in smaller classes
  9. Stop prostituting PE for the sake of teachers' planning period
  10. Class size
- 
11. Time for special classes
  12. Follow 25% policy
  13. Inservice provided for all staff (e.g., counselors, principals, aides)
  14. Assessment schedule and materials for the district
  15. Planning time
  16. Increase awareness of handicapped students' abilities
  17. Equal distribution of special education population
  18. Establish interdisciplinary team for purpose of IEP process

END

U.S. Dept. of Education

Office of Education  
Research and  
Improvement (CERI)

ERIC

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March 21, 1991