AN ABSTRACT OF THE THESIS OF

Stephen D. Dempsey for the degree of Doctor of Philosophy in Education presented on August 1, 1986.

Title: A Comparison of College/University Professors and Specialists in Adapted Physical Education in Their Perception of the Importance of a Specified Set of Professional Competencies. Redacted for privacy

Abstract approved: Dr. John M. Dunn

The purpose of this study was to compare college and university professors with adapted physical education specialists in their perception of the importance of a specified set of professional competencies.

A mail survey, the Competencies for an Adapted Physical Education Specialist questionnaire was utilized in this study. The questionnaire contained 59 competency statements arranged in 20 categories and seven demographic questions.

The study's population utilized two groups of adapted physical educators from the United States. One group consisted of college and university professors who have made significant contributions to the area of physical education for the handicapped. To be selected for this group, the professors had to meet a specified set of criteria. Sixty professors met this criteria.
The second group, the adapted physical education specialists, were selected from the National Directory of Adapted Physical Education Personnel. A systematic sample yielded 274 adapted physical education specialists.

Surveys were sent to the 60 professors and 274 specialists. The professors returned 56 (93%) surveys and the specialists returned 182 (66%). All data were collected in a seven-week period.

It was hypothesized that there is no significant difference in the perception of the college and university professors and specialists in adapted physical education regarding a specified set of professional competencies.

The Chi-square statistic was used to treat the data. A .05 level of significance was chosen for this study. Phi and Cramer's V tests were utilized to determine the degree of association between the professors and specialists.

The null hypothesis was rejected on 20 of the 59 (34%) competency statements. The professors rated 90% of the competencies as important or somewhat important (\( \bar{X} \) range of 1.00 to 1.75) and the specialists rated 92% of the competencies as important or somewhat important (\( \bar{X} \) range of 1.00 to 1.75). The high level of agreement between the professors and specialists helps to verify the Guidelines for Adapted Physical Education as a valuable guide for the training of adapted physical education specialists.
A COMPARISON OF COLLEGE/UNIVERSITY PROFESSORS AND SPECIALISTS IN ADAPTED PHYSICAL EDUCATION IN THEIR PERCEPTION OF THE IMPORTANCE OF A SPECIFIED SET OF PROFESSIONAL COMPETENCIES

by

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Date thesis is presented:  August 1, 1986
Thesis typed by Judith Sessions for Stephen D. Dempsey
DEDICATION

This thesis is dedicated to all educators, past, present, and future.

Slow me down, Lord!
Ease the pounding of my heart
By the quieting of my mind.
Steady my harried pace
With a vision of the eternal reach of time.

Give me,
Amidst the confusions of my day,
the calmness of the everlasting hills.
Break the tensions of my nerves
With the soothing music of the singing streams
That live in my memory.

Help me know
The magical restoring power of sleep.
Teach me the art
Of taking minute vacations of slowing down
to look at a flower;
to chat with an old friend or make a new one;
to pat a stray dog;
to watch a spider build a web;
to smile at a child;
or to read a few lines from a good book.

Remind me each day
That the race is not always to the swift;
that there is more to life than increasing its speed.
Let me look upward
Into the branches of the towering oak
And know that it grew slowly and well.

Slow me down, Lord,
And inspire me to send my roots deep
Into the soil of life's enduring values.

Author Unknown
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In addition, I would like to thank Helen M. Berg and Pam Bodenroeder of the Oregon State University Survey Research Center for their assistance with the statistical design and survey utilized in the study. I would also like to thank Suzi Maresh for computer consultation and the Oregon State University Computer Center for the unsponsored research grant which I received. My sincere thanks are extended to Judith Sessions who typed the dissertation.

I am grateful to all the survey respondents. Indeed, without their cooperation, this study would not have been possible.

My sincere thanks are extended to my fellow graduate students for the support they gave me during this process.

Finally, and most of all, I thank my wife, Claudia, for her support and understanding through the doctoral process. Her belief in me made it possible to pursue my doctorate.
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A COMPARISON OF COLLEGE/UNIVERSITY PROFESSORS AND SPECIALISTS IN ADAPTED PHYSICAL EDUCATION IN THEIR PERCEPTION OF THE IMPORTANCE OF A SPECIFIED SET OF PROFESSIONAL COMPETENCIES

CHAPTER 1
INTRODUCTION

On November 29, 1975, President Gerald R. Ford signed The Education for all Handicapped Children Act, Public Law, 94-142 (P.L. 94-142) (Semmeland and Heinmiller, 1977). The initial regulations for P.L. 94-142 were presented in The Federal Register, Tuesday, August 23, 1977, and became fully effective on September 1, 1980.

The law includes provisions designed to ensure that all handicapped children ages 3 to 21 have a free and appropriate public education. Furthermore, the law protects the rights of handicapped children and their parents and assists state and local education agencies in providing this education (Federal Register, August 23, 1977).

The law defines both special education and physical education. Special education is defined as "specially designed instruction at no cost to the parent, to meet the unique needs of a handicapped child including classroom instruction, instruction in physical education, home instruction and instruction in hospitals and institutions" (Federal Register, August 23, 1977, 121a 14). Physical education, the only curricular area identified in Public Law 94-142 (Aufsesser, 1981), is defined as: "Physical and motor
fitness; fundamental motor skills and patterns; and skills in aquatics, dance and individual and group games and sports; including intramural and lifetime sports.” (Federal Register, August 23, 1977, 121a. 14).

Purpose Of The Study

The purpose of this study was to compare college and university professors with adapted physical education specialists in their perception of the importance of a specified set of professional competencies.

Significance of the Study

Public Law 94-142 has had a dramatic impact on physical education teacher preparation programs (National Association of State Directors of Special Education 1975). The impact directly relates to teacher education and the competency of those responsible for educating the handicapped in a physical education setting.

As early as 1964, Hooley indicated that professionals needed to take immediate action in establishing competencies for physical educators working with the handicapped.

Ersing and Wheeler (1971) concluded that much diversity characterized training programs for adapted physical education teachers and that it was imperative that consistency in training programs be established.

Bird and Gansneder (1979) expressed concern over the quality of adapted physical education training for those
individuals who serve handicapped children. DePauw (1981) indicated that many physical educators are unprepared to teach handicapped children emphasizing the need for specialized training in the area of physical education for the handicapped.

In recent years, some states have developed standards and certification procedures for teachers of adapted physical education. Although there is not universal agreement among state education officials, administrators, and professionals, there is a growing interest in identifying the competencies that adapted physical professionals should possess (Fait and Dunn, 1984).

This study may assist colleges and universities and state departments of education identify competencies believed to be important by both professors and specialists in adapted physical education.

Assumptions

The design of this study was based upon the following assumptions:

1. The Adapted Physical Education Competency Questionnaire covers the major areas considered essential in the training of adapted physical education specialists, excluding the area of practicums or performance criteria.
2. Respondents were capable of accurately assessing their attitudes, beliefs, and judgment at the time of completing the survey instrument.

3. The subjects were a representative sample of the population from which they were selected.

**Limitations of the Study**

The study was subject to the following limitations:

1. The sample of college and university adapted physical education professors was restricted to those individuals who have made significant contribution to the area of physical education for the handicapped. These individuals may not be representative of college and university adapted physical educators.

2. The sample of adapted physical education specialists was drawn from those listed in the National Directory of Adapted Physical Education Personnel (Megginson, 1984). The individuals identified in the directory may not be representative of adapted physical education specialists.

3. The individuals in the study varied with respect to their professional experience and educational background.
4. The willingness of the survey participants to complete and return their surveys.

Delimitations of the Study

This study utilized two groups of adapted physical educators from the United States. One group consisted of 60 college and university professors who have made significant contributions to the area of physical education for the handicapped. Members of this group met a specified set of criteria.

The second group, the adapted physical education specialists, were systematically selected from the National Directory of Adapted Physical Education Personnel (Megginson, 1984). This group was comprised of 274 individuals.

The views of the professors as well as specialists were obtained by utilizing a mail survey questionnaire.

Definition of Terms

The following definitions are included to provide the reader with an understanding of terms used in this study.

American Alliance for Health Physical Education, Recreation and Dance (AAHPERD): An organization of professionals concerned with the physical education, health, and leisure needs of citizens within the United States (Fait and Dunn, 1984).
Adapted Physical Education: A program which has the same goals as regular physical education, but in which adjustments are made in regular offerings to meet the needs and abilities of exceptional students (Fait and Dunn, 1984). The terms also includes corrective, remedial, special, developmental, and therapeutic physical education, and physical education for the handicapped (Ersing and Wheeler, 1971).

Adapted Physical Education Academy: A unit within AAHPERD, founded in 1975, to promote the needs of school-age handicapped children and their special physical education needs (Fait and Dunn, 1984). The organization was merged in 1985 with the Therapeutics Council and became the Adapted Physical Activity Council.

Adapted Physical Activity Quarterly (APAQ): A multi-disciplinary journal, designed to stimulate and communicate scholarly inquiry related to physical activity for special populations.

Adapted Physical Education Specialist: One who has a bachelors or masters degree in adapted physical education; coursework in adapted physical education; and/or whose major job function is to teach physical education to handicapped students K-12.
Bloom's Taxonomy: A model based on the Taxonomy of Educational Objectives for the cognitive and affective domains. Bloom and his associates arranged intellectual behavior into a hierarchy consisting of six major categories. Each category or level is progressively more complex and is therefore dependent on the preceding. The six steps are as follows: knowledge, comprehension, application, analysis, synthesis and evaluation (Bloom, 1967).

College/University Professor: One who has a doctorate or equivalent training in physical education and who has had extensive training or work experience with teaching the handicapped; and has taught in a professional preparation program and has met the criteria set for this study.

Competencies: The acquisition of knowledge, the application of it, and the development of needed behaviors and skills (Behroogian, 1982).

Council for Exceptional Children (CEC): A national organization of professional special educators.

Discretionary Grant: A federal grant which may be applied for by a college/university and is utilized to provide training in teacher preparation programs.
Fourteenth Amendment: A Constitutional amendment which extended United States citizenship to everyone born in this country as well as to anyone who undergoes naturalization.

Handicapped: Those who have been evaluated as being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, multi-handicapped, or as having specific learning disabilities, who because of these impairments, need special education and related services (Federal Register, August 23, 1977).

Likert Scale: A scale in which the interval between each point on a scale is assumed to be equal. The scale is used to register the extent of agreement or disagreement with a particular statement of an attitude, belief, or judgment (Tuckman, 1978).

National Consortium on Physical Education and Recreation for the Handicapped (NCPERH): An organization, founded in 1973, of individuals with extensive backgrounds in the fields of adapted physical education and therapeutic recreation which promotes professional preparation programs and research in physical education and recreation for the handicapped (Fait and Dunn, 1984).

Therapeutics Council: An AAHPERD organization founded in 1952. Its main concern is that all special populations,
including the elderly, participate in quality programs of physical activity (Fait and Dunn, 1984). The organization was merged in 1985 with the Adapted Physical Education Academy and became the Adapted Physical Activity Council.

Unit on Programs for the Handicapped: An AHPERD organization founded in 1968 to develop materials and serve as a clearing house for information about physical education and leisure needs of the handicapped (Fait and Dunn, 1984). The organization was discontinued in 1983.
CHAPTER 2
REVIEW OF RELATED LITERATURE

With the current unprecedented thrust for reform in education among legislators and citizens, it is evident that there is a movement to re-examine regular and special education and all its phases (Bell, 1982; O'Brien, 1983; Sontag, 1983). Clearly related to the issue of reform is a lack of consensus in the United States on teacher certification (Lilly, 1983; Sontag, 1983; Clark, 1984; Feistrizer, 1984). The recent attention on the quality of education and teachers in today's schools has encouraged many states to implement programs designed to ensure teacher competency. These plans typically involve identifying teacher behaviors appropriate for all teachers (Sass-Lehrer and Wolk, 1984).

The review of literature in this chapter is presented in five sections: Special Education Legislation; Research Regarding Professional Preparation in Special Education; Research Regarding Professional Preparation in Adapted Physical Education; Articles Regarding Professional Preparation in Adapted Physical Education and Research Regarding Teacher Competencies.

The review of the literature indicated there is very little research available in the areas of teacher competencies and preparation in special education and adapted physical education.
Special Education Legislation

More than a dozen acts that relate specifically to the handicapped have been passed by Congress since 1954. Several of the laws pertain directly to professional preparation programs (Howe, 1981). The Cooperative Research Act, P.L. 83-531, was the first major legislation passed to assist the handicapped. This act provided grants to states and institutions of higher learning and for cooperative support of educational research, surveys, and demonstrations, and for the dissemination of information derived from educational research. Although P.L. 83-531 was passed in 1954, it was not funded until 1957 (Mueller, 1976).

Public Law 85-926, the Training of Professional Personnel Act (1958) was intended to encourage the expansion of teachers for mentally retarded children by allocating grants to institutions of higher learning and to state educational agencies. Aimed primarily at training professional personnel who would, in turn, train teachers to work with mentally retarded children, P. L. 85-926 was, perhaps, the most significant of the early legislative accomplishments. Public Law 87-276, the Teachers of the Deaf Act (1961) authorized support for training teachers of the deaf (Burke, 1976).
Public Law 88-164, section 301 (1963) expanded the authority to train personnel for the hard of hearing, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, and other health impaired. These handicapping conditions were added to mentally retarded and deaf, which had been funded by earlier legislation. Section 302 of P. L. 88-164 authorized grants for research and demonstration projects in the area of education of the handicapped (Martin, 1968).

In 1965, P. L. 89-105 was passed. This law extended existing basic authorities for the development of research, professional personnel programs and demonstration centers (Mueller, 1976).

Public Law 90-170, Mental Retardation Amendments of 1967, extended basic training authority and added a new authority for training personnel and for research in the area of physical education and recreation of handicapped children (Burke, 1976).

In 1970, the Elementary and Secondary Act, P. L. 91-230, was passed. Public Law 91-230 authorized the training of personnel under the handicapped discretionary grant program. Generally, discretionary grants provide funds for identifiable needs. In this case, monies for personnel preparation in special education were provided.
The passage of P. L. 94-142, the Education for all Handicapped Children Act, further modified the research program by changing the definitions of handicapped children and by mandating several specific studies to be carried out by the Bureau of Education for the Handicapped. Monies were also provided for personnel preparation for those who work with the handicapped (Turnbull and Turnbull, 1979).

After a decade of rapid growth, special education is now faced with political and economic consideration which may shape and limit the future of service for exceptional students. This situation was brought about by a decline in the general economy which precipitated a shift toward fiscal conservatism. Special education, even though it is a relatively small area of political and economic concern, is a highly visible growth area in federal domestic spending and government regulation (Crowner, 1985).

Special education staked much of its initial growth on the humanistic argument that educating handicapped children was morally correct. As early as the 1920s, the Fourteenth Amendment had been used as an argument to extend educational services to handicapped students (Crowner, 1985).

In the 1980s, focus has shifted from a question of whether society should serve the handicapped to whether the current system of fiscal support and governance of special education is the most efficient and effective way to support services for exceptional students (Crowner, 1985).
The Gramm-Rudman-Hollings Balanced Budget Amendment, recently passed by Congress, may further impact and diminish federal funding for special education programs. If the proposed reductions remain intact, over 60 million dollars for education for the handicapped will be cut in fiscal year 1986-1987 (Lytle, 1986). The future of federal funding for special education appears to be unclear.

Research Regarding Professional Preparation in Special Education

Special education in the United States began to develop as a profession in the late 19th century. Programs were conducted in residential schools for the education of exceptional children. Modeled on European schools and asylums, residential schools set the early pattern for special education in the United States. The schools were predominantly categorical in nature. The roles of teachers were defined in areas of the blind, the deaf, and the retarded (Hill, 1945).

The earliest preparation for special education teachers took place in residential schools. For example, Gallaudet College in Washington, D.C., serving both deaf children and college-age youth, started a teacher preparation program in the 1890s (Craig, 1942). In 1904, the Vineland Training School began summer training sessions for teachers of retarded children (Hill, 1945).
In the 1920s and 1930s university-based programs were developed for the preparation of special education personnel. The surge in specialized teacher preparation began after World War II. Between 1948 and 1976, the number of colleges and universities training special education teachers increased from 77 in 1948 (Mackie and Dunn, 1954) to more than 600 in 1976 (Lord, 1981). The first graduate programs in special education were begun in the early 1950s.

Several trends relevant to professional preparation in special education became evident during the 1960s and 1970s. The categories of exceptionality were extended to include more children. The educable mentally retarded population grew as well as the number of identified individuals with emotional disturbances, hearing and visual impairments. Congressional support also stimulated programs in areas that previously received only marginal attention. These areas included programs for the severely and profoundly handicapped, early childhood education, the blind, the deaf, autistic and the bilingual handicapped. The effect was the establishment of additional teacher preparation programs for the various types of handicapping conditions. The proliferation of categorically based training programs stimulated some college educators to discuss problems of overlap in training and opened, for examination, the possibilities of cross-categorical training (Turnbull and Turnbull, 1979).
The expansion of special education teacher training programs has paralleled federal legislation and funding as well as the expansion of educational opportunities for handicapped children. This is illustrated by a 600 percent increase in the number of special education administrators, supervisors, and college and university teacher educators in the quarter century preceding 1975 (Stevenson, Hebler and Reynolds, 1976).

Teacher preparation has long been a challenging aspect of special education (Andrews, 1983). Hallahan and Kaufman (1983) indicated that special education continues in a state of transition and has no clear conceptual or professional boundaries. The need for a well-defined zone of responsibility for special education has become urgent (Heller, 1981).

The preparation of special education teachers has undergone many fluctuations in quality and content over the years. Because of the lack of explicit standards, many preparation programs have contributed only part of what is needed to fully prepare teachers (Heller, 1981).

Major efforts in standards development are being carried out under the auspices of the Council for Exceptional Children (CEC) and through the accreditation process of the National Council of Accreditation of Teacher Education (NCATE) (NCATE, 1979).
Critical issues and attitudes toward special education are not new to those concerned with the preparation of teachers of special education. Goldstein (1959) compared the numerical growth in programs and services for exceptional children with the accompanying problems of quality, maintaining high standards, and the future impact of today's expediency.

Sarason, Davidson, and Blatt (1962) studied the gap in teacher education between the everyday function of the teacher and the curricula by which they are prepared. They described a special education teacher, a psychological diagnostician, and tactician. Regarding teacher preparation, they proposed, as a first step, detailed descriptions which allow one to state specific assumptions and provide direction for the development of relevant techniques of evaluation.

Through the ages, Socrates, Pestalozzi, Froebel, and Herbart, to mention a few, have attempted to describe a good teacher. Although interest continues, recent research designed to identify an effective teacher has defied empirical enumeration (Gage, 1963). Kirk (1966) concluded that we have essentially failed to prepare a diagnostic and clinical teacher for special education and we are far from attaining status as a science of special education.
Schwartz (1967) outlined the following as requirements in a special education teacher program.

1. Medical, psychological and social aspects of deviations in growth and development.
2. Resources of community agencies available to render supportive services.
3. Experience in utilizing various disciplines and services.
4. Planning, designing, and conducting the remediation program.
5. Selection and utilization of appropriate educational activities, technological equipment materials and techniques.
6. Evaluating student progress, reporting, and referral.

Schwartz (1967) also described what elements should be required in a college or university interdisciplinary setting for special education teacher preparation program.

1. A child study center for various types of studies and evaluations of exceptional children and youth.
2. A learning materials center equipped with technological equipment and a laboratory for development of appropriate learning materials.
3. Demonstration classes in the preschool, primary, and intermediate range to demonstrate the various remediation approaches at different maturation levels.

4. A research center to study and disseminate information for program development and to conduct basic and applied investigations of learning and remediation of behavior disorders.

Presently, special education is a confusing and difficult maze of titles, labels, and guidelines, through which educators and practitioners must wander. This poses an important concern for university teacher education programs because they must strive to match graduates' competencies to the needs of exceptional children as perceived by various state standards (Ambach, 1982; Heller, 1983; Smith-Davis, Burke and Noel, 1984). This is complicated by the high mobility of current university graduates of teacher education programs.

Recent literature addressing the need for change to improve the quality of special education teacher-training programs was reviewed to determine indicators of quality in training programs (Denemark, Marsink and Thomas, 1980; Stotz, 1981; Benderson, 1982; Corrigan, 1982; Denemark, Hersh, Smith, & Delaney, 1982; National Education Association, 1982; Sontag, 1983; Williams, Rose, Knight, DeWeaver, and Coward, 1982; Sharp, 1983; The Council for
Exceptional Children, 1983). Sutherland and Castleberry (1985) found there were 468 indicators of quality programming defined and categorized in the literature. The indicators were generic rather than specific to various handicapping conditions and did not identify any specific trends.

While special educators recognize the need for teachers of exceptional children to develop specialized skills to work with students who have unique needs, they should also consider the possibility that the relative importance of specific competencies may vary depending on certain characteristics and setting variables (Sass-Lehrer and Wolk, 1984).

Previous investigations of competencies for teachers of exceptional students have suggested that competencies vary according to specific student characteristics or setting variables, but studies have not examined the influences of these or other variables on teachers ratings of competencies (Mackie, 1955; Mackie and Harrington, 1959).

Two teacher characteristics that may influence perceptions of competencies include years of teaching experience and professional preparation. Numerous studies indicate that teachers' concerns change over time. Teachers with more experience may have different perceptions than teachers beginning their careers (Fuller, 1969).
Sutherland and Castleberry (1985) concluded that masters degree level special education teacher training programs supported by the Division of Personnel Preparation (DPP) under the Training Personnel for the Education of the Handicapped program do contain indications that they are quality training programs.

In response to the recognition of the widespread and diversified needs of the handicapped, training programs for special educators have developed rapidly. There is now a need to focus on the quality of training programs to ensure that there are not only opportunities for handicapped children to receive an education, but that those opportunities are provided by educators who receive their training in quality programs.

Research Regarding Professional Preparation Programs in Adapted Physical Education

Professional preparation programs in adapted physical education have existed for 20 years. Presently, over 200 colleges and universities throughout the United States offer some coursework in adapted physical education. Over 50 colleges and universities offer specialized programs at the undergraduate, masters, or doctoral levels (DePauw, 1979).

According to the U. S. Department of Education, Division of Personnel Preparation, in fiscal year 1984, there were 26 professional programs which received federal monies for the training of adapted physical educators.
(U. S. Department of Education, Division of Personnel Preparation, 1984). In fiscal year 1985, there were 28 teacher preparation programs for adapted physical educators which received federal monies (U. S. Department of Education, Division of Personnel Preparation, 1985). Including fiscal years 1984 and 1985 and considering the duplication of programs in both reports, there was a total of 34 adapted physical education programs funded (U. S. Department of Education, Division of Personnel Preparation, 1984 and 1985).

In 1950, Davis conducted a study to identify competencies related to physical education for the handicapped. The purpose of the study was to determine the specific competencies needed to develop specialists in corrective physical education. The study dealt with those who worked with orthopedically handicapped students. No statistical data were presented in the study. Davis concluded that a professional preparation program should be a graduate program with a bachelors degree in physical education serving as a preparatory course.

Since that time, few studies have investigated professional preparation in adapted physical education. No other major research concerning professional preparation in adapted physical education was conducted until the 1960s. Hooley (1964) studied the certification and coursework practices in the preparation of teachers for the area of
adapted physical education. In this study, questionnaires were addressed to the Educational Director of each state and to the Director of Physical Education in every NCATE (National Council for Accreditation of Teacher Education) or AACTE (American Association of Colleges for Teacher Education) accredited institution offering degrees in Health, Physical Education and Recreation.

The results of the study indicated that professional educators needed to take immediate action in establishing an acceptable definition of an adapted physical education program. There appeared to be a need for establishing competencies for the selection of personnel who teach adapted physical education courses in teacher preparation programs.

The Joseph P. Kennedy Jr. Foundation was an important force in personnel preparation in physical education for the handicapped in the 1960s. This foundation provided the impetus for the establishment of the Unit on Programs for the Handicapped, first designated the Task Force on Programs for the Mentally Retarded, as an integral part of the American Alliance for Health, Physical Education, and Recreation in 1965.

In 1967, the Federal government established the Bureau of Education for the Handicapped. A year later, the Bureau began to fund special graduate level training programs in
physical education and recreation for the handicapped
(Congressional Record, June 25, 1967).

Stein (1969) surveyed educators regarding professional preparation guidelines for federally funded and other training programs for those who teach physical education to the mentally retarded. Based upon the responses received from 63 educators representing 26 states, and the District of Columbia, Stein concluded that undergraduate level preparation should focus upon working with all handicapping conditions, as well as offering sufficient exposure to the mentally retarded.

Winnick (1969) conducted a study to determine practices of teacher preparation institutions in New York regarding the preparation of physical educators and special educators. Questionnaires were mailed to physical education department chairpersons in the nineteen colleges and universities offering a degree in physical education. Questionnaires were also mailed to the education chairpersons in the five colleges and universities having approved professional preparation programs for teachers of the mentally retarded and the physically handicapped and to the three institutions preparing teachers of the physically handicapped. Along with the basic questionnaire, the chairpersons received a five-item questionnaire seeking opinions toward selected policies regarding teaching physical education to the handicapped.
The physical education chairpersons indicated that eight institutions offered a basic two-hour course in physical education for the handicapped, while seven institutions offered a three-hour course. An additional course, teaching physical education to the mentally retarded, was offered for undergraduate and graduate credit in one institution.

Concerning the ten institutions offering a graduate major degree in physical education, there appeared to be a variety of course offerings in adapted physical education, with six institutions offering one course and one institution offering two courses in adapted physical education. One university offered a Master of Science with a specialization in adapted physical education; another offered a graduate program leading to a masters and a doctoral degree in adapted physical education.

The results of the questionnaire, regarding the preparation of special educators, indicated that none of the institutions required an adapted physical education course of special educators at the undergraduate or graduate level. Two of the administrators responded that they would accept elected adapted physical education credits for graduate work in special education.

A non-categorical approach was used to present the guidelines as opposed to listing the competencies according to type of handicapped child to be taught.

General considerations for adapted physical education professional preparation were included in the report. The most important consideration was that all students need field experience opportunities under the supervision of qualified personnel. Institute participants agreed that course work and theory should be closely related to the practicum experience and that the field experiences should be available in a wide variety of settings (AAHPER, 1973).

Ersing and Wheeler (1971) surveyed 312 institutions in fifty states with professional preparation programs in adapted physical education. A questionnaire was used to examine the nature of the curriculum and courses offered within the field of adapted physical education.

Of the 178 institutions responding to the questionnaire, twenty-four offered a professional preparation curriculum to prepare specialists in adapted physical education. One hundred and twenty-two institutions indicated that although they did not offer a curriculum leading to an adapted physical education specialization, they did offer
course work in adapted physical education. Thirty-two institutions made no provisions for the preparation of individuals to work with the handicapped. Ersing and Wheeler concluded that much diversity characterized the approaches to preparing adapted physical education personnel.

Ersing and Wheeler further stated that undergraduates and Masters level students seemed to have equal opportunity for specializing in adapted physical education. Most undergraduate adapted physical education courses appeared to be survey courses with limited field experience. They expressed the opinion of the respondents that the field experience is a critical part of the professional preparation program at any level.

Keogh (1975) conducted a study of the remedial physical education (RPE) programs in California. The purpose of the study was to present a descriptive analysis of pupil, teacher, and program characteristics of the remedial physical education programs, funded in 1973–74 by the state of California.

Approximately 75 percent of all of the teachers in Keogh's study had completed an undergraduate degree in a California institution. Seventy-eight to 89 percent of all of the teachers had majored in physical education. Eighty-three percent of the teachers in small and large districts held secondary certification. Remedial physical education teachers in special education held a wide variety of
credentials including special education certification and elementary and secondary certification. Teaching experience for regular teachers averaged six years, while special education teachers reported an average of three and one-half years. Very few teachers in any group reported extensive experience in teaching physical education for children with special needs.

In conclusion to his study, Keogh presented several recommendations with respect to remedial physical education for personnel at state, county, local, and university units. He indicated that teacher preparation programs and inservice training appeared to be inconsistent and incomplete. Adequate preparation programs were urgently needed if teachers were to be competently trained. Keogh suggested that roles and responsibilities of advisory and supervisory personnel at state, county, and local levels be delineated to allow for closer working relationships among all remedial physical education program operations. It was recommended also that an efficient and comprehensive system be implemented for the collection of remedial physical education-related information and its dissemination to all remedial physical education personnel. Relevant information for pupil and program evaluation should be collected and reported by state and local districts. Colleges and
universities should expand teacher training programs to better prepare personnel to work with children with a variety of handicapping conditions.

Bird and Gansneder (1979) conducted an extensive needs assessment concerning physical education for the handicapped in Virginia. The survey was supported in part by the Division of Personnel Preparation, Bureau of Education for the Handicapped, United States Office of Education, as part of a project to develop a Master's of Education training program at the University of Virginia in Adapted Physical Education.

Of the 912 physical educators included in the sample, 40 percent, or 359, returned the questionnaires. Thirty-seven percent of the 359 were elementary physical educators; 28 percent were junior high physical educators; and 35 percent were senior high physical education teachers. Fifty-five percent of the respondents were male. The respondents had a mean age of 31 years with a standard deviation of eight years.

Bird and Gansneder reported that 26 percent of the 359 respondents had earned a master's degree, while 3 percent had an educational specialist degree and 2 percent had a doctoral degree. The majority, 84 percent, had baccalaureate degrees in physical education. The 359 physical educators reported an average of six years of teaching experience. Most respondents had not participated in a
practicum experience with the handicapped. Only 40 percent of those having received a bachelor's degree had earned credits in courses primarily focusing on physical education for the handicapped. Only 12 percent of those having received a master's degree had taken such courses.

Over 50 percent of the 359 respondents reported little or no knowledge of handicapping conditions. Over half of the respondents expressed little or no knowledge of the motor needs of the handicapped. The physical educators appeared to be most confident in their knowledge of obesity, underweight, epilepsy, and anemia. More than 33 percent expressed little or no knowledge of mentally retarded children and youth.

Bird and Gansneder presented a list of competencies to the physical educators and asked them to rate their ability to perform these competencies with respect to programming for the handicapped. The results indicated that between 24 and 48 percent of the respondents did not know how to perform a majority of the tasks.

The respondents rated the quality of their adapted physical education training in the following manner. The majority, 65 percent, rated their training as poor or very poor; 23 percent, fair; and only 12 percent, good or very good. Bird and Gansneder expressed concern over what appeared to be very poor adapted physical education training for those individuals who will be serving the handicapped as
a result of the enactment of Public Law 94-142. Virginia physical educators did not view themselves as being prepared to provide appropriate motor experiences for the handicapped. Because two-thirds of the Virginia respondents received training outside of the state, Bird and Gansneder felt that inadequate professional preparation was not limited to Virginia.

The results and recommendations of the studies reviewed did not identify specific competencies for the professional preparation of adapted physical educators (Hooley, 1964; Winnick, 1969; Ersing and Wheeler, 1971; Hooley, 1974; Keogh, 1975; Vadola and Daniel, 1976; Browne, 1977; Bird and Gansneder, 1979; DePauw, 1979).

**Articles Regarding Professional Preparation in Adapted Physical Education.**

Articles have been written by Stein (1969) AAHPERD (1976); Mosley (1977); Geddes and Seaman (1978) the California State Task Force on Standards for Professional Preparation in Adapted Physical Education (1978) identifying competencies necessary for professional performance. These articles, however, were generic and did not directly address specific competencies for the adapted physical education specialist.

Various professionals in the area of adapted physical education have stated what they believe to be essential components of an adapted physical education teacher.
Bundschuh (1976) suggested that competencies for prospective teachers entering a mainstreamed setting be categorized under the three major headings developed by Sparling (1976). These consist of an area of foundations, an area of specific impairment, and an area of program development. Bundschuh felt that such competencies could not be obtained from a single course, but should be developed by an integrated program encompassing the mainstream philosophy.

French, Jansma, Puthoff, and Winnick (1976) suggested that there were several unique and essential competencies for special physical educators which required in-depth training beyond a regular physical education background. These competencies included assessment, program development and implementation, and interprofessional participation.

Sherrill (1981) identified the need for adapted physical educators to be proficient in the following: assessment, writing an individualized education program (IEP), developmental and/or prescriptive teaching, counselling, and coordination of resources and services.

Aharoni (1981) stated that the adapted physical educator must have more than basic training at the university level in the diversified areas of adapted physical education, i.e., physical education, special education, psychology and allied medicine. Also required are the desire to serve children, creativity, organizational
skills, imagination, ability to construct and adapt equipment and plan activities to meet the students' needs. An adapted physical educator should be well-versed in theoretical knowledge and have an abundance of practical experience in order to relate to the varied disabilities and the motor characteristics of handicapped individuals.

Fait and Dunn (1984) listed the following as being attributes and qualifications for an adapted physical educator.

Attributes
1. Emotional maturity
2. Patience
3. Sense of Humor
4. Sensitivity
5. Creativity
6. Organizational ability

Qualifications
1. Instruct adapted activities
2. Knowledge of sport and game skills
3. Nature of the human body and its response to exercise
4. Training in methods of teaching and the psychology of learning including motor learning.
5. Specific information regarding causes, nature and psychological implication of various handicapping disabilities.
6. Basic knowledge of injuries as they relate to certain handicaps.

Auxter and Pyfer (1985) suggested that a person in adapted physical education have training in adapted physical education classes as well as applied anatomy, and physiology. They further stated that graduate training in adapted physical education would strengthen this background.

Many authors indicated that a field experience/practicum should be required in addition to academic programs (DeBonis, 1971; Ersing and Wheeler, 1971; Goodwin, 1974; Bundschuh, 1976; Aufsesser, 1981; DePauw, 1981; Winnick, 1985).

Several states have established standards and identified competencies for adapted physical educators. The states that require written certification for adapted physical educators are: California, Georgia, Kansas, Louisiana, and New Mexico (Seaman and DePauw, 1982). Wisconsin, Minnesota and Nevada have developed an adapted physical education emphasis within their state certification of regular physical educators. Other states are considering some type of certification for adapted physical education (Aufsesser, 1981).

The state of California has required that all teachers possess ten competencies to work in mainstream settings with the handicapped. A list of these competencies follow:
Diagnose children's academic strengths and weaknesses, perceptual characteristics, and preferred learning modalities through formal and informal assessment procedures.

Demonstrate the ability to assess the characteristics and behavior of exceptional pupils in terms of program and developmental needs.

Recognize the differences and similarities of exceptional and non-exceptional pupils.

Analyze nondiscriminatory assessment including a sensitivity to cultural and linguistic factors.

Produce and evaluate short- and long-term educational objectives based on Individualized Education Program goals.

Utilize various diagnostic/prescriptive materials and procedures in reading, language arts, math, and perceptual-motor development.

Apply diagnostic information toward the modification of traditional school curriculum and materials for selected children.

Identify and teach non-academic areas such as socialization skills, career, and vocational education.

Discuss inter- and intra-personal relationships with students and be able to communicate appropriate information in a nonthreatening manner to teachers and parents.

Explain current enabling legislation dealing with special education.

(Guidelines for the implementation of special education training for teachers and administrators. California Commission for Teacher Preparation and Licensing, 1978)

A recent attempt to define the competencies for adapted physical educators was developed jointly by representatives of the Adapted Physical Education Academy,
the Therapeutics Council and AAHPERD Unit on Programs for the Handicapped (Hurley, 1981).

This group, with assistance from many professionals, developed the Guidelines for Adapted Physical Education. The guidelines were intended to address competencies required for an adapted physical educator. The categories within the guidelines' competencies are: Biological Foundations, Sociological Foundations, Psychological Foundations, Historical-Philosophical Foundations, Assessment and Evaluation, and Curriculum Planning, Organization and Implementation (Hurley, 1981).

The AAHPERD Guidelines for Adapted Physical Education were the basis for this study. A complete description of these is contained in Appendix A.

It is evident that a critical examination of adapted physical education curriculum and courses should be done at the college and university level to guide future development of adapted physical educators (Ersing and Wheeler, 1971). Flint (1967) stated that most professional programs designed to prepare regular physical educators at the undergraduate level include a course related to adapted physical education. Aufsesser (1981) agreed with Flint but also observed that with the mandate of Public Law 94-142 these classes must be updated to meet current needs. He went on to explain that schools with existing programs would find the
task a relatively simple one, but universities having no adapted courses for major students would need substantial changes.

Aufsesser (1981) believes graduate programs should offer 12-15 academic units of adapted physical education in addition to practicum, required internships, and core courses for all masters students. A specialization in adapted physical education at the masters degree level, provides a sound academic foundation and diverse practicum experiences.

Aufsesser explained further that teacher training programs are increasingly emphasizing specialization in adapted physical education for undergraduate students. These programs have been stimulated by the need for trained specialists in the public schools. Aufsesser stated that special training at the undergraduate level is naturally not as prevalent as at the graduate level, but the trend for earlier specialization at the undergraduate level would continue.

Research Regarding Teacher Competencies

In the past few years, much emphasis has been placed on the development of competencies for those who teach handicapped students (Whitten and Westling, 1985). Concern about the relevance of instruction and accountability has been the force behind the movement for reform in teacher preparation (Rosner and Kay, 1974).
Competency may be described as the acquisition of knowledge, the application of it, and the development of the needed behaviors and skills (Behroozian, 1982). In today's educational terms, competencies refer to factors or qualities deemed important in teaching and requiring a minimal level of expertise in performance (Wendt, 1983). The competence process simply puts research findings and professional consensus into a proper perspective so that their implications for behavioral objectives may become more apparent and educators may have a clear understanding of requirements (Hall, 1976).

Pottinger and Goldsmith (1979) indicated there might not be total agreement about the meaning of competence, but some consensus emerged about several important aspects of the concept: that it is desirable, can be taught, can be measured; and that it is rarely the true basis of teaching, learning, assessment, accreditation, certification, or job access.

Houston and Howsam (1972) suggested that one or more of the following might be selected and modified to develop competencies in teacher education programs. These approaches included:

1. Program Translation. The reformulation of current courses by rewriting the course requirements as behavioral objectives.
2. **Task Analysis.** This approach includes a number of alternative processes.
   a. Observe the teacher in the act of teaching and translate the observations into competencies.
   b. Request the teacher to reconstruct their daily activity log and identify major competencies.
   c. Teachers and other educational workers speculate upon what effective teachers do and then translate these into sub-goals.

3. **Needs of School Learners.** Competency statements are based on the needs of the children. Their ambitions, values, and perspectives form the basis for a curriculum to train teachers.

4. **Needs Assessment.** Formulate a teacher education program to cope with the consequences of a teacher's actions in the real world or the needs of society.

5. **Theoretical.** A position is assumed and the program is built around it.

6. **Cluster Approach.** A number of curriculum areas are identified and clustered prior to subdividing into explicit competency components.

The review of the literature indicated there were several studies done in the past few years to determine competencies within specific disciplines. Most of the studies utilized a survey (questionnaire) with a Likert Scale as the measurement instrument. The surveys were sent to experts and professionals in the particular area of the study. Upon return of the surveys, competencies were developed by professional consensus. Olsen (1978), Bird-Arizmendi (1982), and Samahito (1984) conducted studies to determine what competencies were required for regular
physical educators. The review of the literature did not reveal any studies regarding adapted physical education.

The review of the literature identified several studies regarding competencies in special education. Competency development studies have been conducted regarding teachers of the following areas: various levels of mental retardation (Jamieson, 1982); educable mentally retarded (Childs, 1978, Vandenberg, 1982); hearing impaired (Sass-Lehrer, 1982); multi-handicapped (Huer, 1981); preschool handicapped (Blough-Ryan, 1982); gifted (Hultgren, 1981); secondary resource teachers (Preuss, 1981); autistic (Smith, 1980); visually handicapped (Kimbrough, 1980); emotionally disturbed (Michael, 1979); and the deaf (Piccolino, 1977).

The most comprehensive competency study reviewed was done by Whitten and Westling (1985). Their study sought to describe the variation of validation techniques in competency research during the past 10 years. The initial step of the research was to establish an extensive listing of important competencies. This information was synthesized and provided a listing of pertinent competencies for teachers of the severely and profoundly handicapped.

Another purpose of the research was to form a data base or level of empirical validity of the competencies. In searching the literature for reports on teacher competencies, variation was found in the writer's
justification, expressed or implied, for suggesting that a particular competency or competency area was necessary.

Four levels of validity were found in this study. These included:

1. Opinion - The author stated that the competency was necessary but offered no further validation.

2. Supported opinion - The author substantiated the statement by citing other literature.

3. Professional consensus - The competency statements listed were rated by a group of professionals, usually teachers, as being important or necessary.

4. Student gain - The competencies were found to be related to student learning when demonstrated by teachers.

The competence of students in teacher preparation has been an issue facing higher education in the past few years. Concerns have included declining student enrollment and demands for accountability. This has forced colleges and universities to make changes in curriculum, admissions policies, scheduling, and modes of instruction. However, tradition has tended to protect the interests and reflect the values of those already in the profession. In other words, those who defined standards within a given field still controlled access to the field even though new assessment instruments claimed to be capable of measuring
competencies, rather than mastery of knowledge alone (Pottinger and Goldsmith, 1979). Behroozian (1982) stated that some institutes of higher education regarded the attaining of certification as the acquisition of basic competencies.

Historically, special education teacher preparation programs have emphasized methods of presenting subject matter and the interpretation of cognitive process presumed to underlie learning. More recently, special educators have designed competencies utilized in teacher preparation programs (Robie, Pierce and Burdett, 1979; Pierce, Perelman and Cody, 1981). Included in these programs, were such teaching methods as direct instruction, classroom management techniques, and the minimum objectives systems for planning and assessing instructional outcomes (Armstrong, Stahlbrand, and Pierce, 1980; Paine, 1980; Stahlbrand, Armstrong, and Pierce, 1981-82).

Turner (1971) stated that the ultimate test of specific competencies was to show a relationship between their demonstration and gains in student achievement. He suggested further work should be directed toward this end. Turner went on to say that demonstrating this relationship presented a difficult area of research for several reasons. One difficulty is the length of time it may take to show gains with handicapped students. Because of this time element, it is important in the interim to demonstrate a
high level of professional consensus. Turner also stated that the quality of service must be as assured as the quantity of service. Those engaged in preservice and inservice training of teachers of handicapped students should be aware of the skills these individuals need. At this point, the available literature offers some direction, but further research should provide more empirical validity regarding the impact of competencies on teacher preparation programs.

Summary

The recent thrust for reform in education has led to a re-examination of all phases of education (Bell, 1982; O'Brian, 1983; Sontag, 1983). Of major concern are teacher competency and teacher certification in relationship to professional preparation programs (Clark, 1983; Lilly, 1983; Sontag, 1983; Feistrizer, 1984).

The review of literature indicated that the growth of special education teacher training programs has and continues to be directly tied to federal legislation and federal funding. Since 1950, there has been a 600 percent increase in the number of specialized teachers employed to educate handicapped individuals, and a corresponding increase in the number of special education administrators, supervisors, and college and university educators (Stevenson, Hebles, and Reynolds, 1976).
The development of professional preparation programs in adapted physical education began about 25 years ago. Presently, over 50 colleges and universities offer specialized programs at the undergraduate, masters, or doctoral levels (DePauw, 1979).

The research regarding professional preparation in adapted physical education began in 1950 by Evelyn A. Davis. Since that time, studies by Stein (1969); Winnick (1969); Ersing and Wheeler (1971); Keogh (1975); and Bird and Gansneder (1979) have investigated the competencies required of an adapted physical education teacher.

The results and recommendations of the studies reviewed in this chapter did not identify specific competencies for the professional preparation of adapted physical educators. However, the studies indicated that physical educators who teach handicapped children were ill-prepared in their job function.

Several articles identified competencies necessary for an adapted physical educator. These articles, however, are generic and did not directly address specific competencies for the adapted physical education specialists. Most authors indicated that there is a need for a practicum/field experience in addition to academic programs.
Several authors indicated there is a need for a critical examination of adapted physical education curriculum courses at the college and university level (Flint, 1967; Ersing and Wheeler, 1971; Aufsesser, 1981).

State certification and standards for adapted physical educators has been a slow process as witnessed by the fact only a few states have such a requirement (DePauw, 1982). Some states are considering some type of certification for adapted physical education teachers (Aufsesser, 1981).

The area of adapted physical education has gone through many changes since the implementation of Public Law 94-142. This law has caused a modification of public school physical education programs and university training programs (Aufsesser, 1981).

The lack of material in the review of literature indicate the need for continued research, curriculum and competency development, and a long-range commitment to the preparation of adapted physical education specialists.

State certification and standards for adapted physical educators need to be adopted to help ensure quality in professional preparation. Continued improvement is essential in meeting the challenge issued by Public Law 94-142 to benefit handicapped children through physical activity.
CHAPTER 3
METHODS AND PROCEDURES

The problem of the present study was to compare college and university professors to adapted physical education specialists in their perception of the importance of a specified set of professional competencies.

In this chapter, the methods and procedures used in this study are discussed in the following sections: 1) preliminary procedures; 2) selection and preparation of the instrument; 3) selection of subjects; 4) hypotheses; 5) collection of data and statistical analysis.

Preliminary Procedures

The investigator reviewed the literature pertaining to the professional preparation of special education and adapted physical education teachers. This information was presented to the thesis committee in the winter of 1986. Permission was obtained from the thesis committee to conduct the research. The Oregon State University Survey Research Center assisted in development of the questionnaire (Bodenroeder, 1986) and selection of the statistical analysis and design (Berg, 1986).

Selection and Preparation of the Instrument

A mail survey questionnaire consisting of an Adapted Physical Education Competency section and a Demographic Information section was utilized in this study.
The major measurement instrument, Competencies for an Adapted Physical Education Specialist questionnaire (Appendix B), was adapted from the Guidelines for Adapted Physical Education (Hurley, 1981) (Appendix A). The guidelines include those competencies required for an adapted physical education specialist. The guidelines are mentioned in several adapted physical education texts as the most recent attempt to identify adapted physical education competencies (Seaman and DePauw, 1982; Fait and Dunn, 1984; Auxter and Pyfer, 1985). Development of the guidelines began in 1977 when Leon Johnson and Lane Goodwin of the Adapted Physical Education Academy, Wayne Osness, President of the National Association for Sport and Physical Education (NASPE) and Julian Stein, Director of the American Alliance for Health, Physical Recreation and Dance (AAHPERD) Unit on Programs for the Handicapped, met and appointed a 13-member Task Force on Adapted Physical Education. The Task Force was comprised of members of the Adapted Academy, the Therapeutic Council, and AAHPERD Unit on Programs for the Handicapped (Appendix C). This body was charged with developing competencies for the preparation of adapted physical educators. The guidelines were developed for elementary and secondary school adapted physical education generalists and specialists (Hurley, 1981).
The Task Force met in 1979 and drafted the first set of guidelines. The guidelines were subsequently presented at state and district conventions for reaction and response from professionals across the nation. To insure the information was disseminated, the guidelines were also published in the January 1980 Information Resource Utilization Center (IRUC) Briefings. Readers were encouraged to give their reactions and comments. Utilizing respondent feedback, the Task Force revised the guidelines in April of 1980. The revised guidelines were approved by the Task Force and were submitted to and approved by the Professional Preparation Committee of the College and University Council of NASPE (Hurley, 1981).

To determine if the competencies were as applicable today as they were in 1981, a letter (Appendix D) and survey were sent to the thirteen Task Force members. They were requested to add, delete, or modify competencies on the survey and return it in a self-addressed/stamped envelope. Minor revisions were made in the survey to reflect present day philosophy. Eleven of the thirteen Task Force members returned their surveys.

Utilizing the Guidelines for Adapted Physical Education and Bloom's Taxonomy, the investigator constructed the Competencies for an Adapted Physical Education Specialist questionnaire. The questionnaire contains 59 competency statements arranged in 20 categories which correspond with
the original categories in the guidelines. In addition to the competency statements, seven questions were included in a demographic information section (Appendix B). The respondents were asked to indicate the extent of agreement on a Likert-type four-point scale with each statement by circling the appropriate statement. A level of importance for each statement was assigned on the basis of the following four-point scale:

1 - Very Important
2 - Somewhat Important
3 - Not Too Important
4 - Not At All Important

Each respondent assigned a qualitative score to each statement to denote its relative importance based on individual background and experience (Bodenroeder, 1986).

Selection of Subjects

The study's population utilized two groups of adapted physical educators from the United States. One group consisted of college and university professors who have made significant contributions to the area of physical education for the handicapped. The criteria for selection of this group required that the individual was identified in two of the following categories.

1. A member of the National Consortium on Physical Education and Recreation for the Handicapped (NCPERH).
2. An officer, past or present, of the National Consortium on Physical Education and Recreation for the Handicapped (NCPERH).

3. A member of the Adapted Physical Activity Quarterly (APAQ) editorial or review board.

4. An Author or editor in the field of physical education for the handicapped.

5. A recipient of a discretionary grant in the field of personnel preparation of adapted physical educators.

6. A member of the Adapted Physical Education Task Force which developed the original AAHPERD competency guidelines.

Sixty individuals met this criteria and were selected for the college and university professor group.

The second group, the adapted physical education specialists were systematically selected from the National Directory of Adapted Physical Education Personnel. The directory was a product of the Grass Roots Adapted Physical Education ecoSystems (GRAPES) Project in cooperation with the National Consortium on Physical Education and Recreation for the Handicapped (NCPERH) and was funded by a U.S. Department of Education Grant (Megginson, 1984). The development of the directory was the initial phase in creating a national dissemination and advocacy network of adapted physical education personnel. The directory was designed to identify and assist in networking adapted
physical educators at the national, state, regional and local levels; encourage communication and dissemination between these professionals pertaining to certification efforts; and support legislation concerns and personnel preparation program/opportunities (Megginson, 1984).

The adapted physical education specialists were listed by their respective states. The names of the professionals were identified by various state departments of education officials and college and university professors. Over 1,600 professionals are listed in the Adapted Physical Education Directory.

A systematic sample was utilized to identify the adapted physical education specialist group. A random starting point was selected and every sixth name thereafter was utilized in the study. The outcome of this methodology was the selection of 274 adapted physical education specialists (Berg, 1986).

**Hypotheses**

It was hypothesized that there is no difference in the perception of the college and university professors and specialists in adapted physical education regarding a specified set of professional competencies. The following null hypothesis was utilized to test the hypothesis:
\[ H_0: u_1 = u_2 \]

where, \( H_0 \) is the hypothesis

\( u_1 \) is the college/university professors

\( u_2 \) is the adapted physical education specialists

The null hypothesis states that chance is responsible for any differences found in a study. Inferential statistical tests are designed around the assumption that the null hypothesis is true (Saslow, 1982).

Collection of Data and Statistical Analysis

Data were collected by mailing a cover letter (Appendices E & F), a questionnaire (coded for identification and follow-up) (Appendix B), and a stamped, self-addressed envelope. The cover letter explained the nature of the research project. Instructions for completing the survey were emphasized on the questionnaire. All data were collected in a seven-week period.

A week after the initial mailing, a postcard (Appendix G) was sent to all respondents thanking them for participating in the study with a reminder to those who had not returned the questionnaire to please do so.

Two weeks after the postcards were sent, a follow-up cover letter (Appendices H & I) and questionnaire were sent to those who had not yet responded.
The Oregon State University Survey Research Center indicated a minimum of a 60 percent return in both the professor and specialist groups was adequate for the study (Bodenroeder, 1986).

The final step in the collection of data was to record and code each returned questionnaire before transferring the data to the Oregon State University Computer Center for analysis.

The Chi-square ($X^2$) statistic was used to treat the data. Chi-square is the most common statistic when doing an inferential test on nominal data (Saslow, 1982). Chi-square is a test of statistical significance and determines whether a systematic relationship exists between two variables. This is found by computing the cell frequencies which would be expected if no relationship is present between the variables given the existing (observed/actual) row and column totals under the null hypothesis (Saslow, 1982). The expected cell frequencies are then compared to the actual values.

**Mathematical Model for Chi-square ($X^2$)**

$$X^2 = \sum \frac{(O - E)^2}{E}$$

where $X^2$ is Chi-square

$\sum$ is the sum

$O$ is the observed (actual) frequency

$E$ is the expected frequency
The greater the difference between the expected and observed (actual) frequencies, the larger the Chi-square value.

If no relationship exists between two variables in the study, then any deviation from the expected values in a randomly selected sample are due to chance. While some small deviations can reasonably be expected to be shown, large values of Chi-square are unlikely. Small Chi-square values indicate the absence of any relationship, often referred to as statistical independence. Conversely, a large Chi-square implies that a systematic relationship of some sort exists between the variables (Nie, Hull, Jenkins, Steinbrenner, & Bart, 1975).

The observed and the expected frequencies must be compared before the null hypothesis of independence can be accepted or rejected (Lapin, 1980).

A .05 level of significance was chosen for this study (Berg, 1986). For most scientific journals, the .05 level is the maximum risk a researcher is willing to accept for rejecting the null hypothesis (Saslow, 1982).

No further statistical computations were conducted if there was no significant difference between the perception of the professors and the specialists. If there was a significant difference, Phi or Cramer's V statistic, also known as Cramer's Contingency Coefficient, was used to represent the degree of association (Herzborg, 1983).
Phi ($\phi$) is utilized for a 2x2 table and is a suitable measure of association. It makes a correction for the fact that the value of Chi-square is directly proportional to the number of cases ($N$) by adjusting the Chi-square ($X^2$) values. Phi takes on the value of 0 when no relationship exists, and the value of +1 when the variables are perfectly related (Nie et al., 1975).

Mathematical Model for Phi

$$\phi = \frac{(X^2)^{1/2}}{N}$$

where $\phi$ is Phi

$X^2$ is Chi-square

$N$ is the number of cases

Cramer's V ($V$) is a slightly modified version of phi which is suitable for larger tables. When Phi is calculated for a table which is larger than 2x2, it has no upper limit. Therefore, Cramer's V is used to adjust Phi for either the number of rows or the number of columns in the table, depending on which of the two is smaller. Cramer's V also ranges from 0 to +1 when several nominal categories are involved. Thus, a larger value of V merely signifies that a high degree of association exists, without revealing the manner in which the variables are associated (Nie, et al., 1975).
Mathematical Model for Cramer's V (V)

\[ V = \left( \frac{\phi}{N \min (r-1), (c-1)} \right)^{1/2} \]

where
- V is Cramer's V
- \( \phi \) is Phi
- N is the number of cases
- c is the number of columns
- r is the number of rows
- min is the minimum of (r-1) or (c-1)

Means and standard deviations were also calculated for each competency statement in this study. The data table utilized to analyze each of the competency statements in this study is reported below.

<table>
<thead>
<tr>
<th>Level of Importance</th>
<th>Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Somewhat</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Not too</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Not At All</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

df = 3

F = .05
CHAPTER 4

PRESENTATION AND DISCUSSION OF FINDINGS

The purpose of this study was to compare college and university professors with adapted physical education specialists in their perception of a specified set of professional competencies. In this chapter, a description of the respondents, an analysis of the data, and a discussion of the findings are presented.

Description of the Respondents

The study's population utilized two groups of adapted physical educators from the United States. One group consisted of college and university professors who have made significant contributions to the area of physical education for the handicapped. The respondents in this group met two or more of the following criteria.

1. A member of the National Consortium on Physical Education and Recreation for the Handicapped (NCPERH).

2. An officer, past or present, of the National Consortium on Physical Education and Recreation for the Handicapped (NCPERH).

3. A member of the Adapted Physical Activity Quarterly (APAQ) editorial or review board.
4. An author or editor in the field of physical education for the handicapped.

5. A recipient of a discretionary grant in the field of personnel preparation of adapted physical educators.

6. A member of the Adapted Physical Education Task Force which developed the original AAHPERD competency guidelines.

Sixty individuals met this criteria and were included in the college and university professor group.

The second group, the adapted physical education specialists, were selected from the National Directory of Adapted Physical Education Personnel (Meggison, 1984). A systematic sample yielded 274 adapted physical education specialists.

As illustrated in Table 4.1, surveys were sent to the 60 professors and 274 specialists. A return rate of 60 percent was considered to be adequate for each group (Bodenroeder, 1986). The professors returned 56 (93%) surveys and the specialists returned 182 (66%) surveys. The respondents according to the districts recognized by AAHPERD are indicated in Table 4.2.
Table 4.1
Survey Adjusted Completion Rate

<table>
<thead>
<tr>
<th>Survey Information</th>
<th>College/University Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Surveys Sent</td>
<td>60</td>
<td>100.0</td>
</tr>
<tr>
<td>Survey Returned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed</td>
<td>56</td>
<td>93</td>
</tr>
<tr>
<td>Surveys Returned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to Sender</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Surveys Not</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.2
Distribution of Respondents by AAHPERD Districts

<table>
<thead>
<tr>
<th>District</th>
<th>College/University Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>Eastern</td>
<td>11</td>
<td>29</td>
</tr>
<tr>
<td>Midwest</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>Northwest</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Southern</td>
<td>20</td>
<td>48</td>
</tr>
<tr>
<td>Southwest</td>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>182</td>
</tr>
</tbody>
</table>
Analysis of Data

Data were collected for each subject by the use of a mail survey questionnaire (Appendix B). All data were collected in a seven week period.

The Chi-square ($X^2$) statistic was used to treat the data. Chi-square is a test of statistical significance and determines whether a systematic relationship exists between two variables. This is found by computing the cell frequencies which would be expected if no relationship is present between the variables given the existing (observed/actual) row and column totals under the null hypothesis (Saslow, 1982). The expected cell frequencies are then compared to the actual values.

The greater the difference between the expected and observed (actual) frequencies, the larger the Chi-square value.

If no relationship exists between two variables, then any deviations from the expected values in the sample are due to chance. While some small deviations can be expected to be shown, large values of Chi-square are unlikely. Small Chi-square values indicate the absence of any relationship, often referred to as statistical independence. Conversely, a large Chi-square implies that a systematic relationship of some sort exists between the variables (Nie et al., 1975).
The observed and the expected frequencies must be compared before the null hypothesis of independence can be accepted or rejected (Lapin, 1980). A 0.5 level of significance was chosen for this study.

If there was a significant difference between the professors and the specialists, Phi or Cramer's V statistic, also known as Cramer's Contingency Coefficient, was used to represent the degree of association (Herzborg, 1983). Phi was utilized on 2x2 tables and Cramer's V on tables larger than 2x2. Both have value ranges from 0 to +1 and signify the degree of association which exists between two variables without revealing the manner in which they are associated (Nie et al., 1975).

**Demographic Analysis**

Five of seven demographic questions were found to be significant at the .05 level. The questions were part of the Adapted Physical Education Specialists Questionnaire (Appendix B). The significant variables were: gender, age, degree, present employment and years taught. The questions which were not significant related to the respondent's preference for the level and type of disability population they prefer to teach.

Respondents were categorized by gender in Table 4.3. There was a significantly higher percentage of males in the professor group (75%) and a lower percentage in the specialist group (35%). Conversely, there were fewer females
in the professor group (25%) and more in the specialist group (65%). The gender table was the only table which utilized Phi. This was due to the fact that it was a 2x2 table. The gender distribution was consistent with the sample population and, therefore, the obtained significance was expected.

Table 4.3

<table>
<thead>
<tr>
<th>Gender</th>
<th>College/University</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Professors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>Male</td>
<td>42</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Chi-square 28.33  
\[ p = .000 \]  
\[ \text{Phi} .35 \]

* Statistically significant at the .05 level.

Data for respondents grouped by age are reported in Table 4.4. All of the professors fell between the ages of 31 and 60, while the specialists ranged in ages from 20 to 60 and older.

As expected, because of the time it takes to obtain an advanced degree there were no professors in the 20-30 age bracket.

The largest percentage of the population, 57 for the professors and 49 for the specialists, were in the 31-40 age
group. These values were expected given the young age of the adapted physical education discipline.

Table 4.4

<table>
<thead>
<tr>
<th>Age</th>
<th>College/University Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>20-30</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>31-40</td>
<td>32</td>
<td>57</td>
</tr>
<tr>
<td>41-50</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>51-60</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>60+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Chi-square 21.41 p = .0003 Cramer's V .30

The distribution of respondents according to degree is depicted in Table 4.5. Seventy-five percent of the professors had obtained a doctorate degree and 25 percent had completed post-doctoral study. Specialists ranged from 29 percent with a bachelors degree to 70 percent with a masters and 1 percent with a doctorate.

Generally speaking, the findings in this category should not be unexpected. The professors would be expected to have higher degrees than the specialists because of the nature and qualification for positions in academia. The high
percentage (70%) of specialists with a master's degree is consistent with the advanced training normally required in this area of specialization (Fait and Dunn, 1984).

Table 4.5

<table>
<thead>
<tr>
<th>Degree</th>
<th>College/University Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Bachelors</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Masters</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Doctorate</td>
<td>42</td>
<td>75</td>
</tr>
<tr>
<td>Post-Doctorate</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>56</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Chi-square 227.39  p = .000  Cramer's V .98

The data concerning present employment are found in Table 4.6. As expected, 95 percent of the professors were employed as adapted physical educators. In the specialist group, 63 percent of the respondents were employed as an adapted physical educator (K-12). Twenty-eight percent of the specialists selected Other as their present employment.

The category of Other included, but was not limited to, those who teach a combination of regular and adapted physical education, teach adapted physical education K-6 or 6-12, teach adapted physical education in a state school for
the handicapped, serve as consultants, and/or supervisors. These data suggest that specialists are expected to perform a variety of instructional services (Sherrill and Megginson, 1984).

Table 4.6

<table>
<thead>
<tr>
<th>Present Employment</th>
<th>College/University Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Adapted Physical Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-12</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Adapted Physical Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College/University</td>
<td>53</td>
<td>95</td>
</tr>
<tr>
<td>Regular Physical Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K-12</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Regular Physical Ed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College/University</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>56</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Chi-square 223.56 \( p = .000 \)  
Cramer's V .97

The years of teaching adapted physical education are shown in Table 4.7. In the professor group, 80 percent of the respondents reported teaching adapted physical education from 6 to 20 years. In the specialist group, 81 percent of the respondents indicated that they have been teaching adapted physical education between 1 and 10 years. These figures suggest that career opportunities in adapted physical education are relatively new and have expanded dramatically in recent years (Seaman and DePauw, 1982).
Table 4.7

<table>
<thead>
<tr>
<th>Number of Years</th>
<th>College/University Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>1-5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>6-10</td>
<td>20</td>
<td>36</td>
</tr>
<tr>
<td>11-15</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>16-20</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td>Over 20</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>56</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Chi-square 53.35  \( p = .000 \)  Cramer's V = .47

Table 4.8 presents the data for disability population preference. The percentage is very close for both groups in relation to each of the five disability areas. The rank by preference for both the professors and specialists was Mentally Retarded, Orthopedically Handicapped, Behavior Disordered, Sensory Impaired, and Other Health Impaired.

The reason the mentally retarded population may be the most popular choice is due to the fact it was one of the earliest populations to be researched and to receive educational services (Hill, 1945). The other factor may be
the wide range of disability population found within this category, i.e. mild, moderate, severe, and profound and the high incidence of associated disabilities found in this population.

Table 4.8
Disability Population Preference

<table>
<thead>
<tr>
<th>Disability Population</th>
<th>College/University Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Behavior Disordered</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Mentally Retarded</td>
<td>28</td>
<td>52</td>
</tr>
<tr>
<td>Orthopedically Handicapped</td>
<td>17</td>
<td>31</td>
</tr>
<tr>
<td>Other Health Impaired</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Sensory Impaired</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>56</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Chi-square 3.85  P = .430  Cramer's V .13

Respondents grouped by level of disability preference are shown in Table 4.9. As was depicted in Table 4.8, the percentages are very similar between the professors and
specialists in the selection of a preference of a level of disability. The levels of disability were ranked in the following order by both groups: Moderate, Severe, Mild, and Profound.

Table 4.9

<table>
<thead>
<tr>
<th>Level of Disability</th>
<th>College/University Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Mild</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Moderate</td>
<td>35</td>
<td>62</td>
</tr>
<tr>
<td>Severe</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Profound</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Chi-square 2.86  P = .413  Cramer's V .11

Analysis of Competency Statements

Means and standard deviations were calculated for each competency statement in this study (Table 4.10).

It was hypothesized that there is no difference in the perception of the college and university professors and specialists in adapted physical education regarding a specified set of professional competencies. The following null hypothesis was utilized to test the hypothesis.
H₀: There is no significant difference between college and university professors and adapted physical education specialists in their perceptions of the importance of a specified set of professional competencies.

The statistical hypothesis was:

\[ H₀ \mu^1 = \mu^2 \]

where, \( H₀ \) is the hypothesis

\( \mu^1 \) is the college and university professors

\( \mu^2 \) is the adapted physical education specialists
The data representing the mean scores of the 59 competency statements (Appendix B) utilized in the study are found in Table 4.10.

The mean values indicate that both groups perceive each of the competencies to be important (rating of 1.0) or somewhat important (rating of 2.0). Only one of the competencies received a mean rating approaching the Not Too Important category (rating of 3.0). The professors and specialists both rated the competency "describe the historical development of adapted physical education" as greater than 2.50. The professors rated two of the competencies, "understand motor dysfunction and its implication to movement" and "evaluate student progress in adapted physical education," a perfect 1.0.

The standard deviation for both groups were very similar and ranged from a low of 0 to a high of .83. Most of the values were in the .40 to .60 range.

Table 4.10 also reports whether or not each statement was significant at the .05 level. As indicated, 20 of the 59 (34%) statements were found to be significant.

The data are presented in the following categories: Biological Foundations; Sociological Foundations; Psychological Foundations; Historical - Philosophical Foundations; Assessment and Evaluation; and Curriculum Planning, Organization and Implementation.
Table 4.10
Comparison of Means and Standard Deviations Between Professors and Specialists on the Adapted Physical Education Competency Survey

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Professors</th>
<th>Specialists</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{x}$</td>
<td>s.d.</td>
<td>$\bar{x}$</td>
</tr>
<tr>
<td><strong>BIOLOGICAL FOUNDATIONS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Kinesiology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>1.00</td>
<td>0</td>
<td>1.16</td>
</tr>
<tr>
<td>b.</td>
<td>1.21</td>
<td>.46</td>
<td>1.28</td>
</tr>
<tr>
<td>c.</td>
<td>1.05</td>
<td>.23</td>
<td>1.20</td>
</tr>
<tr>
<td>d.</td>
<td>1.02</td>
<td>.13</td>
<td>1.15</td>
</tr>
<tr>
<td>e.</td>
<td>1.05</td>
<td>.23</td>
<td>1.16</td>
</tr>
<tr>
<td>f.</td>
<td>1.68</td>
<td>.58</td>
<td>1.70</td>
</tr>
<tr>
<td>g.</td>
<td>1.50</td>
<td>.60</td>
<td>1.60</td>
</tr>
<tr>
<td>2. Physiology of Exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of Exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>1.27</td>
<td>.45</td>
<td>1.27</td>
</tr>
<tr>
<td>b.</td>
<td>1.16</td>
<td>.37</td>
<td>1.34</td>
</tr>
<tr>
<td>c.</td>
<td>1.21</td>
<td>.41</td>
<td>1.30</td>
</tr>
<tr>
<td>d.</td>
<td>1.63</td>
<td>.59</td>
<td>1.80</td>
</tr>
<tr>
<td>3. Physiology and Motor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functioning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>1.16</td>
<td>.37</td>
<td>1.30</td>
</tr>
<tr>
<td>b.</td>
<td>1.21</td>
<td>.46</td>
<td>1.29</td>
</tr>
<tr>
<td>c.</td>
<td>1.65</td>
<td>.73</td>
<td>1.42</td>
</tr>
<tr>
<td><strong>SOCIOLICAL FOUNDATIONS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sport, Dance and Play</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Play</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>1.82</td>
<td>.79</td>
<td>1.55</td>
</tr>
<tr>
<td>b.</td>
<td>1.45</td>
<td>.66</td>
<td>1.26</td>
</tr>
<tr>
<td>c.</td>
<td>1.84</td>
<td>.76</td>
<td>1.56</td>
</tr>
<tr>
<td>5. Cooperative/Competitive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>1.64</td>
<td>.62</td>
<td>1.35</td>
</tr>
<tr>
<td>b.</td>
<td>1.64</td>
<td>.67</td>
<td>1.46</td>
</tr>
<tr>
<td><strong>PSYCHOLOGICAL FOUNDATIONS</strong></td>
<td></td>
<td></td>
<td></td>
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Biological Foundations

The data concerning Biological Foundations are found in Table 4.11. The professors and specialists were in general agreement that the competencies included in the Biological Foundations sections were important or somewhat important. The mean ratings for the professors ranged from 1.00 to 1.68 and for the specialists 1.15 to 1.70. Only two of the 14 competency statements were found to be significant.

Both of the statements found to be significant are in the Kinesiology subsection.

The specific competencies are:

1.a. understand motor dysfunction and its implication to movement.

1.g. apply biomechanical principles to posture, and neurological, muscular, and other specific physical health needs.

The professors indicated that these competencies were more important than the specialists. The professors' mean rating for competency 1.a. was a perfect 1.00 and 1.50 for competency 1.g. The mean ratings obtained for the specialists were 1.16 and 1.60 for the corresponding competencies. Although significance was obtained, it is clear that both groups perceived the competencies to be important or somewhat important.
### Table 4.11 Biological Foundations

#### Kinesiology

An Adapted Physical Education Specialist Should

1.a. understand motor dysfunction and its implication to movement.

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<th>Too</th>
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</table>

An Adapted Physical Education Specialist Should

1.g. apply biomechanical principles to posture, muscular, and other specific physical health needs.

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Sociological Foundations

The data representing Sociological Foundations are found in Table 4.12. Four of the six competency statements were found to be significant. The significant competency statements were found in three different subcategories. The specific subcategories and competencies are:

Sport, Dance, and Play:

4.c. understand the influences of community social agencies on sport, dance, and play in the lives of individuals with disabilities.

Cooperative/Competitive Activities:

5.a. recognize the potential for human interaction and social behavior occurring in cooperative/competitive activities for individuals with disabilities.

5.b. cooperate with organizations which conduct adapted sport, dance, and play programs and activities for individuals with disabilities.

Social Development:

6.a. describe how sport, dance, and play provide social interaction among individuals with and without disabilities.

The specialists indicated that these competencies were more important than the professors. The specialists mean rating for competency 4.c. was 1.56, 1.35 for competency 5.a., 1.46 for competency 5.b., and 1.64 for competency 6.a.. Conversely, the mean ratings obtained for the professors were: 1.84 for competency 4.c., 1.64 for
competency 5.a., 1.64 for competency 5.b., and 2.02 for competency 6.a.. Although significance was obtained, it is clear that both groups perceived the competencies to be important or somewhat important with the exception of the professors' rating for competency statement 6.a..

The differences noted in the Sociological Foundations area may be due to the fact that the specialists, by the nature of their position, interact daily with the disabled population. This may account for the specialists' more positive perception concerning the affective area. Sherrill (1984) has proposed that the affective domain must receive greater attention in the preparation of adapted physical education specialists.

Table 4.12 Sociological Foundations
Sport, Dance and Play

An Adapted Physical Education Specialist Should ...........

4.c. understand the influences of community social agencies on sport, dance, and play in the lives of individuals with disabilities.

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<th>Very</th>
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Table 4.12 (Continued)

Cooperative/Competitive Activities

An Adapted Physical Education Specialist Should ............

5.a. recognize the potential for human interaction and social behavior occurring in cooperative/competitive activities for individuals with disabilities.

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An Adapted Physical Education Specialist Should ............

5.b. cooperate with organizations which conduct adapted sport, dance, and play programs and activities for individuals with disabilities.

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Social Development

An Adapted Physical Education Specialist Should ............

6.a. describe how sport, dance, and play provide social interaction among individuals with and without disabilities.

<table>
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Psychological Foundations

The data representing Psychological Foundations are found in Table 4.13. Five of the nine competency statements were found to be significant. The significant statements were grouped in two of the four subcategories. No differences were found for the Psychological Foundation subcategories of Motor Learning and Management of Behavior. The specific subcategories and competencies where significance was obtained are:

Human Growth and Development:
7.a. describe deviations in normal human growth and development of individuals with physical, mental, sensory, neurological, and other specific health needs.
7.b. apply information concerning atypical motor development to individuals with disabilities.

Self-Concept and Personality:
9.a. understand how participation in physical and motor activity contributes to positive self-concepts of individuals with disabilities.
9.b. apply information concerning how interpersonal relationships are affected by participation in physical and motor activity.
9.c. apply information to assist individuals with disabilities overcome barriers which affect interpersonal relationships and development of positive self-concepts.

The professors indicated that competencies 7.a. and 7.b. were more important than the specialists. The professors mean rating for competency 7.a. was 1.25 and 1.07 for competency 7.b.. Conversely, the mean ratings obtained...
for the specialists were 1.66 for competency 7.a. and 1.34 for competency 7.b.

The specialists indicated that competencies 9.a., 9.b., and 9.c. were more important than the professors. The specialists mean ratings were 1.18 for competency 9.a., 1.38 for competency 9.b., and 1.31 for competency 9.c. Conversely, the mean scores obtained for the professors were 1.41 for competency 9.a., 1.63 for competency 9.b. and 1.59 for competency 9.c.. Although significance was obtained, it is clear that both groups perceived the competencies to be important.

Similar to the findings observed in the Sociological Foundations area, the specialists perceived the Psychological Foundations subcategory of Self-Concept and Personality Development more favorable than the professors. This would suggest that the specialists place greater importance on the Sociological and Social-Psychological areas than do the professors. The difference in the Human Growth and Development areas suggest that the professors are consistent in their perception of the importance of a behavioral approach to the instruction of disabled population.
Table 4.13 Psychological Foundations

**Human Growth and Development**

An Adapted Physical Education Specialist Should ............

7.a. describe deviations in normal human growth and development of individuals with physical, mental, sensory, neurological, and other specific health needs.

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An Adapted Physical Education Specialist Should ............

7.b. apply information concerning atypical motor development of individuals with disabilities.

<table>
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<th>Very</th>
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<th>Too</th>
<th>At All</th>
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**Self-Concept and Personality Development**

An Adapted Physical Education Specialist Should ............

9.a. understand how participation and motor activity contributes to positive self-concepts of individuals with disabilities.

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<th>Too</th>
<th>At All</th>
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Table 4.13 (Continued)

An Adapted Physical Education Specialist Should ............

9.b. apply information concerning how interpersonal relationships are affected by participation in physical and motor activity.

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An Adapted Physical Education Specialist Should ............

9.c. apply information to assist individuals with disabilities overcome barriers which affect interpersonal relationships and development self-concepts.

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</tbody>
</table>
Historical - Philosophical Foundations

The data representing Historical - Philosophical Foundations are found in Table 4.14. The professors and specialists were in general agreement that the competencies included in the Historical - Philosophical Foundations section were important to somewhat important. Both groups were consistent in their perception that the Historical developmental competencies were the least important of all the competencies. The competencies also generated the largest standard deviations indicating a diversity of opinion within each group as to the importance of the competencies. One of the six competency statements was found to be significant. The statement is found in the Philosophical Development subsection.

The specific competency is:

12.b. employ a personal/professional philosophy of adapted physical education.

The specialists indicated that this competency was more important than the professors. The specialists mean rating was 1.44. Conversely, the mean rating obtained for the professors was 1.52. Although significance was obtained, it is clear that both groups perceived the competency to be important or somewhat important. The larger value reported for the professors is surprising given the stress normally placed on the development of a philosophy of education by faculty in higher education.
An Adapted Physical Education Specialist Should

12.b. employ a personal/professional philosophy of adapted physical education.

<table>
<thead>
<tr>
<th>Level of Importance (%)</th>
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<th>Too</th>
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Chi-square = 11.90  p = .008  Cramer's V = .22
Assessment and Evaluation

The data concerning Assessment and Evaluation are found in Table 4.15. Five of the seven competencies were found to be significant. The significant competency statements were included in two of the three subcategories. No difference was found for the Assessment and Evaluation subcategory, Program Goals and Objectives. The specific subcategories and competencies where significance was obtained are:

Screening and Assessment:

14.a. use appropriate instruments and procedures for measuring levels of physiological, biomechanical, and psychomotor functioning of individuals with disabilities.

14.b. apply appropriate criteria in constructing assessment instruments for measuring physical and motor performance of students with disabilities.

14.c. interpret assessment results of students with disabilities in terms of physical education goals and objectives.

Evaluation:

15.a. use appropriate instruments in determining physical and motor needs of individuals with disabilities.

15.b. evaluate student progress in adapted physical education.

The professors indicated that these competencies were more important than the specialists. The professors' mean rating was 1.09 for competency 14.a., 1.13 for competency 14.b., 1.04 for competency 14.c., 1.02 for competency 15.a., and a perfect 1.00 for competency 15.b. Conversely, the mean ratings obtained for the specialists were: 1.32 for competency 14.a., 1.34 for competency 14.b., 1.28 for
competency 14.c., 1.22 for competency 15.a., and 1.20 for competency 15.b.. Although significance was obtained, it is clear that both groups perceived the competencies to be important.

Assessment and evaluation are the basis for placement and programming in special education. Due to this fact, it would seem that specialists would be in closer agreement with the professors as to the importance of the Assessment and Evaluation area. Ulrich and Wise (1984) concluded that individuals who are assessing the motor performance of children need more information and training. Findings of this study indicate a need to continue to emphasize, with specialists, the importance of utilizing appropriate instruments to screen and evaluate children.

**Table 4.15 Assessment and Evaluation**

<table>
<thead>
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<th>Assessment and Evaluation</th>
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<tr>
<td>14.a. use appropriate instruments and procedures for measuring levels of physiological, biomechanical, and psychomotor functioning of individuals with disabilities.</td>
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<table>
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<th>Level of Importance (%)</th>
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<th>Not</th>
<th>Very</th>
<th>Somewhat</th>
<th>Too</th>
<th>At All</th>
</tr>
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</table>

Chi-square = 9.52  p = .023  Cramer's V .20
Table 4.15 (Continued)

An Adapted Physical Education Specialist Should ............

14.b. apply appropriate criteria in constructing assessment for measuring physical and motor performance of students with disabilities.

<table>
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<th>Not Very</th>
<th>Somewhat</th>
<th>Too</th>
<th>At All</th>
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An Adapted Physical Education Specialist Should ..........

14.c. interpret assessment results of students with disabilities in terms of education goals and objectives.

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<th>Not Very</th>
<th>Somewhat</th>
<th>Too</th>
<th>At All</th>
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Evaluation

An Adapted Physical Education Specialist Should ............

15.a. use appropriate instruments in determining physical and motor needs of individuals with disabilities.

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<th>Not Very</th>
<th>Somewhat</th>
<th>Too</th>
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</table>

An Adapted Physical Education Specialist Should ..........

15.b. evaluate student progress in adapted physical education.

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<th>Not Very</th>
<th>Somewhat</th>
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</table>
Curriculum Planning, Organization and Implementation

The data relating to Curriculum Planning, Organization and Implementation are presented in Table 4.16. The professors and specialist were in general agreement that the competencies included in the Curriculum Planning, Organization and Implementation category were important. Only one competency (16.f.) was rated by both groups greater than 2.0 (Table 4.10). Three of the 17 competency statements were found to be significant. The significant competency statements were included in two of the five subcategories. No differences were found in the Curriculum Planning, Organization and Implementation subcategories of Program Planning, Program Implementation, and Safety Considerations.

The specific subcategories and competencies where significance was obtained are:

Individual Instruction:

17.a. apply strategies for individualizing instruction for students with disabilities in a variety of instructional settings.

17.b. apply task analysis techniques in the process of individualizing instruction.

Health Considerations:

20.a. apply principles of appropriate health practices to participation in physical and motor activities by individuals with disabilities.
### Individual Instruction

17.a. apply strategies for individualizing instruction for students with disabilities in a variety of instructional settings.

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</table>

17.b. apply task analysis techniques in the process of individualizing instruction.

<table>
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<th>Not</th>
<th>Very</th>
<th>Somewhat</th>
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### Health Considerations

20.a. apply principles of appropriate health practices to participation in physical and motor activities by individuals with disabilities.

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<th>Not</th>
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<td>1</td>
<td>100</td>
<td>182</td>
</tr>
<tr>
<td>Chi-square = 10.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>p = .014</td>
</tr>
<tr>
<td>Cramer's V = .21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
The professors indicated that competencies 17.a. and 17.b. were more important than the specialists. The professors mean rating for competency 17.a. was 1.02 and 1.11 for competency 17.b. Conversely, the mean ratings for the specialists were 1.21 for competency 17.a. and 1.37 for competency 17.b.

The specialists indicated that competency 20.a. was more important than the professors. The specialists mean rating for competency 20.a. was 1.25. Conversely, the mean rating for the professors was 1.54. Even though significance was obtained, it is clear that both groups perceived the competencies to be either important or somewhat important.

The findings with respect to 17.a. and 17.b. are surprising given the recent emphasis which has been placed on the importance of individualizing instruction and utilizing a task analysis approach (Fait and Dunn, 1984).
Table 4.17

Frequency Distribution of the Means of the Competency Statements for the Professors and Specialists

<table>
<thead>
<tr>
<th>Mean Range</th>
<th>Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00 - 1.25</td>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td>1.26 - 1.50</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>1.51 - 1.75</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>1.76 - 2.00</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2.01 - 2.25</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2.26 - 2.50</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2.51 - 2.76</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>59</td>
<td>59</td>
</tr>
</tbody>
</table>
Competency 20.a. under Health Considerations suggests that specialists, because of their day-to-day instructional contact with disability populations, are more sensitive than the professors to the importance of this area.

Discussion

The statistical data indicated that 20 of the 59 competency statements were significant at the .05 level. Therefore, the null hypothesis: there is no significant difference between college and university professors and adapted physical education specialists in their perception of the importance of a specified set of professional competencies, was rejected. However, it must be emphasized that there was a great deal of consensus between the professors and specialists regarding the importance of the competencies. As shown in Table 4.17, the professors, as a group, rated 88 percent of the competencies with a mean value range of 1.00 to 1.75. Similarly, the specialists, as a group, rated 90 percent of the competencies with a mean value range between 1.00 to 1.75. This suggests that the professors and specialists were in agreement that most of the competencies were very important or somewhat important.

A Pearson product-moment correlation coefficient was conducted to determine the relationship between the professors and specialists perception of the competencies. The obtained r of .87 supports the observation that there is a high degree of relationship between the two groups.
As indicated in Table 4.18, the greatest dissimilarity between the professors and specialists occurred in the Foundation areas of Sociological, Psychological and Assessment and Evaluation. In the Sociological area, specialists perceived six of the competencies to be more important than the professors. The professors rated five of the seven competency statements in the Foundation area of Assessment and Evaluation as more important than the specialists. In the Psychological Foundations area, the professors and specialists were split, with the professors perceiving two of the competency statements more important than the specialists and the specialists perceiving three of the competency statements as more important than the professors.

These findings would tend to suggest that the professors are more scientific and behaviorally oriented in their perception of the competencies needed to be a specialist in adapted physical education. The specialists tended to agree with the professors, but they were more inclined to rate highly those areas which deal with the social and social-psychological aspects of adapted physical education.
Table 4.18
Number of Significant Competency Statements by Category and Subcategory

<table>
<thead>
<tr>
<th>Competency Categories</th>
<th>Number of Competency Statements</th>
<th>Highest Mean Rating for Significant Statement Level (.05)</th>
<th>Professors</th>
<th>Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLOGICAL FOUNDATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Kinesiology</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2. Physiology of Exercise</td>
<td>4</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Physiology of Motor Functioning</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIOCOLOGICAL FOUNDATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sport, Dance, and Play</td>
<td>3</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>5. Cooperative/Competitive Activities</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>6. Social Development</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>PSYCHOLOGICAL FOUNDATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Human Growth and Development</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>8. Motor Learning</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Self-Concept and Personality Development</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>10. Management of Behavior</td>
<td>2</td>
<td>0</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HISTORICAL-PHILOSOPHICAL FOUNDATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Historical Development</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Philosophical Development</td>
<td>4</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>ASSESSMENT AND EVALUATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Program Planning</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Screening and Assessment</td>
<td>3</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>15. Evaluation</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CURRICULUM PLANNING, ORGANIZATION, AND IMPLEMENTATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Program Planning</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>17. Individual Instruction</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>18. Program Implementation</td>
<td>3</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Safety Considerations</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Health Considerations</td>
<td>3</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>59</td>
<td>20</td>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>
The findings of the present study lend validity to the competencies included in the Guidelines for Adapted Physical Education. There appears to be consensus between the professors and specialists regarding the importance of the adapted physical education competencies utilized in this study.

In the past few years, much emphasis has been placed on the development of competencies for those who teach handicapped students (Whitten and Westling, 1985). Concern about the relevance of instruction and accountability was the force behind the reform movement in teacher preparation (Rosner and Kay, 1974).

The review of the literature indicated there has been several recent studies to determine competencies within specific disciplines. Most of the studies utilized a survey (questionnaire) with a Likert Scale as the measurement instrument. The surveys were sent to experts and professionals in the particular area of study. Upon return of the surveys, competencies were developed by professional consensus.

The most comprehensive competency study reviewed was done by Whitten and Westling (1985). Their study sought to analyze the various validation techniques utilized in competency research during the past 10 years. A majority of their review dealt with teachers of severely and profoundly
handicapped. Four levels of validity were reported in their review. These included:

1. Opinion - the author stated that the competency was necessary but offered no further validation.

2. Supported opinion - The author substantiated the statement by citing other literature.

3. Professional consensus - The competency statements listed were rated by a group of professionals, usually teachers, as being important or necessary.

4. Student gain - The competencies were found to be related to student learning when demonstrated by teachers.

The present study utilized professional consensus in determining that the adapted physical education competencies were valid. Although differences between the specialists and professors were found, both groups were clear in their perception of the importance of the competencies. Only five of the 59 competencies were rated by either the professors or specialists with a mean rating of greater than 2.0 and four of these competencies were the same for both groups. This finding is particularly encouraging given the significant differences reported in the gender, age, degree, present employment and years taught between the professors and specialists. Fuller (1969) noted that perceptions as to the importance of competencies would be affected by years of teaching experience and professional preparation.
Future studies should be undertaken to determine the effect on student gain of professionals prepared in institutions which adopt and implement the Guidelines for Adapted Physical Education.

Turner (1971) stated that the ultimate test of specific competencies was to show a relationship between their demonstration and gains in student achievement. He suggested further work should be directed toward this end. Turner went on to say that demonstrating this relationship presented a difficult area of research for several reasons. One difficulty is the length of time it may take to show gains with handicapped students. Because of this time element, it is important in the interim to demonstrate a high level of professional consensus. The findings of this study and the consensus attained provide basic but essential information to allow for future research on the effect of the competencies.

In response to the legislative mandates and needs of the handicapped, training programs for adapted physical educators have developed rapidly during the past few years. Utilizing the findings of the present study, programs which prepare specialists in adapted physical education should review their curricula and modify as needed to ensure that professionals are trained with the appropriate competencies.
This study provides a foundation to respond to the professionals who have urged that there be a greater consistency in the training of specialists as adapted physical educators.
CHAPTER 5
SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is divided into three sections. The first section summarizes the purpose, procedures and results of the study. The second section presents the study's conclusion, and the third identifies areas in which future study is needed.

Summary

The purpose of this study was to compare college and university professors with adapted physical education specialists in their perception of the importance of a specified set of professional competencies.

The investigator reviewed the literature pertaining to the professional preparation of special education and adapted physical education teachers.

The major measurement instrument, the Adapted Physical Education Competency Questionnaire (Appendix B) was adapted from the Guidelines for Adapted Physical Education (Appendix A) (Hurley, 1981).

To determine if the competencies were as applicable today as they were in 1981, a letter (Appendix D) and survey were sent to the thirteen Task Force members. They were requested to add, delete, or modify competencies on the survey and return it in a self-addressed, stamped envelope. Based on the input received from the Task Force members, minor revisions were made in the survey. Eleven of the thirteen Task Force members returned their surveys.
Utilizing the Guidelines for Adapted Physical Education (Appendix A) and Bloom's Taxonomy, the investigator constructed the Competencies for an Adapted Physical Education Specialist Questionnaire (Appendix B). The questionnaire contains 59 competency statements arranged in 20 categories which correspond with the original categories in the guidelines. In addition to the competency statements, seven demographic questions and two additional questions were included for a total of 23 categories. The respondents were asked to indicate the extent of agreement on a Likert-type four-point scale with each statement by circling the appropriate point statement. A level of importance for each statement was assigned on the basis of the following four-point scale:

1 - Very Important
2 - Somewhat Important
3 - Not Too Important
4 - Not At All Important

Each respondent assigned a quantitative score to each statement to denote its relative importance based on individual background and experience (Bodenroeder, 1986).

The study's population utilized two groups of adapted physical educators from the United States. One group consisted of college and university professors who have made significant contributions to the area of physical education for the handicapped.
The respondents in this group met two or more of the following criteria:

1. A member of the National Consortium on Physical Education and Recreation for the Handicapped (NCPERH).
2. An officer, past or present, of the National Consortium on Physical Education and Recreation for the Handicapped (NCPERH).
3. A member of the Adapted Physical Activity Quarterly (APAQ) editorial or review board.
4. An author or editor in the field of physical education for the handicapped.
5. A recipient of a discretionary grant in the field of personnel preparation of adapted physical educators.
6. A member of the Adapted Physical Education Task Force which developed the original AAHPERD competency guidelines.

Sixty individuals met this criteria and were selected for the college and university professor group.

The second group, the adapted physical education specialists, were selected from the National Directory of Adapted Physical Education Personnel (Meggison, 1984). A systematic sample yielded 274 adapted physical education specialists.
Surveys were sent to the 60 professors and 274 specialists. The professors returned 56 (93%) surveys and the specialists returned 182 (66%). All data were collected in a seven-week period.

It was hypothesized that there is no significant difference in the perceptions of the college and university professors and specialists in adapted physical education regarding a specified set of professional competencies.

The Chi-square statistic was used to treat the data. A .05 level of significance was chosen for this study. Phi and Cramer's V tests were utilized on the appropriate data to determine the degree of association between the professors and specialists. Means and standard deviations were computed for the competency statements.

The major findings of the study are as follows:

1. Twenty of the 59 (34%) competencies were found to be significant at the .05 level and, therefore, the null hypothesis was rejected.

2. The professors rated 88 percent of the competencies with a mean value range of 1.00 to 1.75.

3. The specialists rated 90 percent of the competencies with a mean value range of 1.00 to 1.75.

4. The greatest dissimilarity between the professors and specialists occurred in the Foundation areas of Sociological, Psychological, and Assessment and Evaluation.
5. The results lend validity to the competencies within the Guidelines for Adapted Physical Education.

6. There appears to be consensus between the professors and specialists regarding the importance of the adapted physical education competencies utilized in this study.

Conclusion

Based on the findings of the study and within the limits of the investigation, it was concluded that the perception of the professors and specialists were similar even though 20 of the 59 competency statements were found to be significant. This conclusion is supported by the professors' and specialists' high ranking for the competencies included in the questionnaire. It appears there is agreement between the professors and specialists as to the importance of the competencies for adapted physical educators included in this study.

Recommendations for Future Studies

After analyzing the results of the present study, the investigator recommends the following additional studies:

1. A study should be undertaken to develop a priority ranking of the competency statements. This information would assist in emphasizing the most important competencies within an adapted physical education teacher preparation program.

2. An analysis should be undertaken to determine differences in the perception of professors to the
importance of the competencies utilizing the six AAHPERD Districts. This would be valuable in determining influences/differences in geographic sections of the United States regarding teacher preparation in adapted physical education.

3. A study should be conducted with state departments of education personnel regarding the competencies and preparation of an adapted physical education specialists. This would assist in gathering data required for state certification in adapted physical education.

4. An international study should be conducted to determine world-wide philosophies regarding adapted physical education teacher preparation. This would add to the knowledge of international physical education practices.

5. A study should be conducted to determine if teacher preparation programs in adapted physical education utilize the Guidelines for Adapted Physical Education as a curricular basis for their Masters degree programs. This may assist in further improvements in adapted physical education teacher preparation programs.

6. A similar study to the present one should be conducted with the following groups to determine differences in their perception as to the importance of the competencies. These include: experienced and
unexperienced teachers; elementary and secondary regular physical educators; occupational and physical therapists; regular and special education classroom teachers; and regular and special education administrators.

7. To further validate the Guidelines for Adapted Physical Education, longitudinal studies should be undertaken of personnel who have the competencies identified in this study to determine their effectiveness in instructing students with disabilities.
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APPENDICES
APPENDIX A

GUIDELINES FOR ADAPTED PHYSICAL EDUCATION
Guidelines for Adapted Physical Education

1.0 Biological Foundations

1.1 KINESIOLOGY
1.1.1 Demonstrate ability to apply understanding of motor dysfunctions and their implications to adapted physical education programs.
1.1.2 Demonstrate ability to apply understanding of neurological disorders and their implications to motor functioning.
1.1.3 Demonstrate ability to apply understanding of deviations from normal physical growth and development to analyses of motor skills.
1.1.4 Demonstrate proficiency in evaluating and analyzing motor skills.
1.1.5 Demonstrate ability to apply understanding of unique structures of individuals with disabilities to individualized instruction in adapted physical education.
1.1.6 Demonstrate ability to apply biomechanical principles which affect motor functioning to wheelchair, crutch, brace, and artificial limb use.
1.1.7 Demonstrate ability to apply biomechanical principles which affect motor functioning to posture, and neurological, muscular, and other specific physical health needs.

1.2 PHYSIOLOGY OF EXERCISE
1.2.1 Demonstrate knowledge of how dysfunctions affect physiological responses to exercise.
1.2.2 Demonstrate ability to design instructional physical education programs in accordance with essential physiological considerations and principles specific to individuals with disabilities.
1.2.3 Demonstrate proficiency in conducting instructional physical education programs in accordance with essential physiological considerations and principles specific to individuals with disabilities.
1.2.4 Demonstrate ability to apply research findings in the area of exercise physiology specific to individuals with disabilities.

1.3 PHYSIOLOGICAL AND MOTOR FUNCTIONING
1.3.1 Demonstrate ability to apply an understanding of physiological functioning of individuals with physical, mental, sensory, neurological and other specific health needs to programs designed to improve motor performance of these individuals with disabilities.
1.3.2 Demonstrate ability to apply an understanding of physiological motor characteristics for individuals with physical, mental, sensory, neurological and other specific health needs to programs designed to improve motor performance of these individuals with disabilities.
1.3.3 Demonstrate ability to apply techniques for the prevention and care of injuries specific to individuals with specific disabilities.

2.0 Sociological Foundations

2.1 SPORT, DANCE, AND PLAY
2.1.1 Demonstrate ability to analyze the role and significance of sport, dance, and play in the lives of individuals with disabilities.
2.1.2 Demonstrate understanding of roles and significance of lifetime physical activities for individuals with disabilities.
2.1.3 Demonstrate understanding of influences of community social agencies on sport, dance, and play in the lives of individuals with disabilities.

2.2 COOPERATIVE/COMPETITIVE ACTIVITIES
2.2.1 Demonstrate ability to apply understanding of potential for human interaction and social behavior occurring in cooperative/competitive activities for individuals with disabilities.
2.2.2 Demonstrate ability to work and cooperate with organizations which conduct adapted sport, dance, and play programs and activities for individuals with disabilities.

2.3 SOCIAL DEVELOPMENT
2.3.1 Demonstrate ability to apply understanding of the potential that sport, dance, and play provides for social interaction among individuals with and without disabilities.

3.0 Psychological Foundations

3.1 HUMAN GROWTH AND DEVELOPMENT
3.1.1 Demonstrate ability to apply understanding of deviations in normal human growth and development of individuals with physical, mental, sensory, neurological, and other specific health needs.
3.1.2 Demonstrate ability to apply understanding of atypical motor development to individuals with disabilities.

3.2 MOTOR LEARNING
3.2.1 Demonstrate ability to apply principles of motor learning to individuals with specific physical and motor needs.
3.2.2 Demonstrate ability to apply principles of motivation on development of motor skills by individuals with disabilities.

3.3 SELF-CONCEPT AND PERSONALITY DEVELOPMENT
3.3.1 Demonstrate understanding of how participating in physical and motor activities contributes to positive self-concepts of individuals with disabilities.
3.3.2 Demonstrate ability to apply understanding of how interpersonal relationships are affected by participation in physical and motor activities.
3.3.3 Demonstrate ability to apply skills and techniques to assist individuals with disabilities overcome additional barriers which can affect interpersonal relationships and development of positive self-concepts.

3.4 MANAGEMENT OF BEHAVIOR
3.4.1 Demonstrate ability to apply appropriate techniques for managing behavior (i.e., behaviorism, existentialism, humanism).
3.4.2 Demonstrate ability to apply techniques of motivation to enhance acceptable behavior and promote motor performance.

4.0 Historical-Philosophical Foundations

4.1 HISTORICAL DEVELOPMENT
4.1.1 Demonstrate understanding of the historical development of adapted physical education.
4.1.2 Demonstrate understanding of roles and significance of professional and voluntary organizations on development of professional standards, ethics, and programs related to adapted physical education.
4.2 PHILOSOPHICAL DEVELOPMENT

4.2.1 Demonstrate understanding of philosophies of adapted physical education.
4.2.2 Demonstrate ability to apply a personal/professional philosophy of adapted physical education.
4.2.3 Demonstrate understanding of current issues and emerging trends in adapted physical education and their philosophical significances.
4.2.4 Demonstrate understanding of ways individuals with disabilities realize and express their individualities and uniquenesses through physical education, sport, dance, and play programs.

5.0 Assessment and Evaluation

5.1 PROGRAM GOALS AND OBJECTIVES
5.1.1 Demonstrate ability to apply goals and objectives of adapted physical education.
5.1.2 Demonstrate ability to develop instructional objectives which lead to fulfillment of physical education goals in psychomotor, affective, and cognitive domains by individuals with disabilities.

5.2 SCREENING AND ASSESSMENT
5.2.1 Demonstrate proficiency in applying appropriate instruments and procedures for measuring levels of physiological, biomechanical, and psychomotor functioning of individuals with disabilities.
5.2.2 Demonstrate proficiency in applying appropriate criteria in constructing assessment instruments for measuring physical and motor performances of students with disabilities.
5.2.3 Demonstrate proficiency to interpret assessment results of students with disabilities in terms of physical education goals and objectives.

5.3 EVALUATION
5.3.1 Demonstrate proficiency in applying appropriate instruments in determining physical and motor needs of individuals with disabilities.
5.3.2 Demonstrate proficiency in applying principles of evaluation in determining student progress in adapted physical education.

6.0 Curriculum Planning, Organization, and Implementation

6.1 PROGRAM PLANNING
6.1.1 Demonstrate proficiency in planning instructional programs to meet needs of students with disabilities emphasizing the following areas:

- physical and motor fitness
- fundamental motor skills and patterns
- skills in aquatics, dance, individual and group games and sports, including lifetime sports and leisure skills.

6.1.2 Demonstrate ability to plan individual physical education programs based on goals and objectives established by an interdisciplinary team.
6.1.3 Demonstrate ability to adapt physical and motor fitness activities, fundamental motor skills and patterns, aquatics and dance, and individual and group games and sports, including lifetime sports and leisure skills, to accommodate needs of individuals with disabilities.
6.1.4 Demonstrate understanding of organizations that govern adapted sports and games.

6.2 INDIVIDUAL INSTRUCTION
6.2.1 Demonstrate ability to apply strategies for individualizing instruction for students with disabilities in a variety of instructional settings.
6.2.2 Demonstrate ability to apply task analysis techniques in the process of individualizing instruction.
6.2.3 Demonstrate ability to implement appropriate physical education programs for individuals with disabilities based on each student's current level of performance.

6.3 PROGRAM IMPLEMENTATION
6.3.1 Demonstrate ability to implement appropriate physical education curricula for individuals with disabilities based upon adequate supportive factors (i.e., administrative policies, facilities, equipment, faculty, and community).
6.3.2 Demonstrate ability to function effectively as a member of an interdisciplinary team.
6.3.3 Demonstrate ability to apply appropriate techniques for facilitating interdisciplinary communication among all persons working with individuals with disabilities.

6.4 SAFETY CONSIDERATIONS
6.4.1 Demonstrate ability to apply principles of safety to wheelchair transfers, lifts, and assists needed when individuals with disabilities participate in physical activities.
6.4.2 Demonstrate understanding of scientific bases for specifically contraindicated exercises and activities for individuals with disabilities.

6.5 HEALTH CONSIDERATIONS
6.5.1 Demonstrate ability to apply principles of appropriate health practices to participation in physical and motor activities by individuals with disabilities.
6.5.2 Demonstrate understanding of effects of medication, fatigue, and illness on mental, physical, and motor performances of individuals with disabilities.
6.5.3 Demonstrate understanding of implications of personal hygiene, posture, and nutrition for individuals with disabilities.
APPENDIX B

COMPETENCIES FOR AN ADAPTED PHYSICAL EDUCATION SPECIALIST QUESTIONNAIRE
COMPETENCIES FOR AN ADAPTED PHYSICAL EDUCATION SPECIALIST

Instructions: An Adapted Physical Education Specialist is defined as one who has a bachelor's or master's degree in physical education, and/or whose major job function is to teach physical education to handicapped students K-12. The items listed are adapted from guidelines prepared by the Adapted Physical Education Academy, Therapeutics Council, and Unit on Programs for the Handicapped of the American Alliance for Health, Physical Education, Recreation, and Dance. 1980. Please read the statements below and indicate the importance of each competency for an adapted physical education specialist. Please circle the appropriate number for each.

<table>
<thead>
<tr>
<th>LEVEL OF IMPORTANCE</th>
<th>VERY</th>
<th>SOMEWHAT</th>
<th>NOT TOO</th>
<th>NOT AT ALL</th>
</tr>
</thead>
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### BIOLOGICAL FOUNDATIONS

1. Kinesiology: An Adapted Physical Education Specialist should...
   a. understand motor dysfunction and its implication to movement
   b. understand neurological dysfunction and its implication to movement
   c. recognize the effect of deviations of physical growth and development on the performance of motor skills
   d. analyze and evaluate motor performance
   e. understand the need for individualized instruction in physical education and its application to individuals with disabilities
   f. apply biomechanical principles to wheelchair, crutch, braces, and prosthesis use
   g. apply biomechanical principles to posture, and neurological, muscular, and other specific physical health needs

2. Physiology of Exercise: An Adapted Physical Education Specialist should...
   a. recognize how impairments effect physiological responses to exercise
   b. design instructional physical education programs in accordance with physiological principles to individuals with disabilities
   c. conduct instructional physical education programs in accordance with physiological considerations and principles specific to individuals with disabilities
   d. apply research findings in the area of exercise physiology to individuals with disabilities

3. Physiological and Motor Functioning: An Adapted Physical Education Specialist should...
   a. apply information concerning the physiological functioning of individuals with physical, mental, sensory, neurological, and other specific health needs to improve the motor performance of these individuals
   b. apply information concerning the physiological motor characteristics of individuals with physical, mental, sensory, neurological, and other specific health needs to improve the motor performance of these individuals
   c. apply techniques for the prevention and care of injuries specific to individuals with specific disabilities

### SOCIOLOGICAL FOUNDATIONS

4. Sport, Dance, and Play: An Adapted Physical Education Specialist should...
   a. analyze the role and significance of sport, dance, and play in the lives of individuals with disabilities
   b. understand the role and significance of lifetime physical activities for individuals with disabilities
   c. understand the influences of community social agencies on sport, dance, and play in the lives of individuals with disabilities

5. Cooperative/Competitive Activities: An Adapted Physical Education Specialist should...
   a. recognize the potential for human interaction and social behavior occurring in cooperative/competitive activities for individuals with disabilities
   b. cooperate with organizations which conduct adapted sport, dance, and play programs and activities for individuals with disabilities

6. Social Development: An Adapted Physical Education Specialist should...
   a. describe how sport, dance and play provide social interaction among individuals with and without disabilities

PLEASE TURN PAGE
PSYCHOLOGICAL FOUNDATIONS

7. Human Growth and Development: An Adapted Physical Education Specialist should...
   a. describe deviations in normal human growth and development of individuals with physical, mental, sensory, neurological, and other specific health needs .................................................. 1 2 3 4
   b. apply information concerning atypical motor development to individuals with disabilities .................................................. 1 2 3 4

8. Motor Learning: An Adapted Physical Education Specialist should...
   a. apply principles of motor learning to individuals with specific physical and motor needs .................................................. 1 2 3 4
   b. apply principles of motivation to the development of motor skills by individuals with disabilities .................................................. 1 2 3 4

9. Self-Concept and Personality Development: An Adapted Physical Education Specialist should...
   a. understand how participation in physical and motor activity contributes to positive self-concepts of individuals with disabilities .................................................................................................................. 1 2 3 4
   b. apply information concerning how interpersonal relationships are affected by participation in physical and motor activity .................................................................................................................. 1 2 3 4
   c. apply information to assist individuals with disabilities overcome barriers which affect interpersonal relationships and development of positive self-concepts .................................................................................................................. 1 2 3 4

10. Management of Behavior: An Adapted Physical Education Specialist should...
    a. apply techniques for managing behavior, i.e., behaviorism, existentialism, humanism .................................................................................................................. 1 2 3 4
    b. apply techniques of motivation to enhance acceptable behavior and promote motor performance .................................................................................................................. 1 2 3 4

HISTORICAL-PHILOSOPHICAL FOUNDATIONS

11. Historical Development: An Adapted Physical Education Specialist should...
    a. describe the historical development of adapted physical education .................................................................................................................. 1 2 3 4
    b. explain the roles and significance of professional and voluntary organizations on the development of professional standards, ethics, and programs related to adapted physical education .................................................................................................................. 1 2 3 4

12. Philosophical Development: An Adapted Physical Education Specialist should...
    a. describe various philosophies of adapted physical education .................................................................................................................. 1 2 3 4
    b. employ a personal/professional philosophy of adapted physical education .................................................................................................................. 1 2 3 4
    c. explain current issues and emerging trends in adapted physical education and their philosophical significances .................................................................................................................. 1 2 3 4
    d. understand how individuals with disabilities realize and express their individualities and uniquenesses through physical education, sport, dance, and play programs .................................................................................................................. 1 2 3 4

ASSESSMENT AND EVALUATION

13. Program Goals and Objectives: An Adapted Physical Education Specialist should...
    a. apply goals and objectives of adapted physical education .................................................................................................................. 1 2 3 4
    b. develop instructional objectives which lead to the fulfillment of physical education goals in psychomotor, affective, and cognitive domains by individuals with disabilities .................................................................................................................. 1 2 3 4

14. Screening and Assessment: An Adapted Physical Education Specialist should...
    a. use appropriate instruments and procedures for measuring levels of physiological, biomechanical, and psychomotor functioning of individuals with disabilities .................................................................................................................. 1 2 3 4
    b. apply appropriate criteria in constructing assessment instruments for measuring physical and motor performance of students with disabilities .................................................................................................................. 1 2 3 4
    c. interpret assessment results of students with disabilities in terms of physical education goals and objectives .................................................................................................................. 1 2 3 4

15. Evaluation: An Adapted Physical Education Specialist should...
    a. use appropriate instruments in determining physical and motor needs of individuals with disabilities .................................................................................................................. 1 2 3 4
    b. evaluate student progress in adapted physical education .................................................................................................................. 1 2 3 4

PLEASE GO ON TO PAGE
CURRICULUM PLANNING, ORGANIZATION, AND IMPLEMENTATION

16. Program Planning: An Adapted Physical Education Specialist should...

a. plan physical and motor fitness programs for disabled students ........................................ 1 2 3 4
b. plan fundamental motor skill programs for disabled students ........................................... 1 2 3 4
c. plan programs for disabled students in aquatics, dance, individual and group games, sports, lifetime sports, and leisure skills ................................................................. 1 2 3 4
d. plan individual physical education programs based on goals and objectives established by an interdisciplinary team ............................................................... 1 2 3 4
e. adapt physical and motor fitness activities, fundamental motor skills and patterns, aquatics and dance, and individual and group games and sports, including lifetime sports and leisure skills, to accommodate needs of individuals with disabilities ......................................................... 1 2 3 4
f. describe organizations that govern adapted sports and games ........................................ 1 2 3 4

17. Individual Instruction: An Adapted Physical Education Specialist should...

a. apply strategies for individualizing instruction for students with disabilities in a variety of instructional settings ................................................................. 1 2 3 4
b. apply task analysis techniques in the process of individualizing instruction ............................. 1 2 3 4
c. implement appropriate physical education programs for individuals with disabilities based on each student's current level of performance ........................................ 1 2 3 4

18. Program Implementation: An Adapted Physical Education Specialist should...

a. implement appropriate physical education curricula for individuals with disabilities based upon adequate supportive factors, i.e., administrative policies, facilities, equipment, faculty, and community ................................................................. 1 2 3 4
b. participate effectively as a member of an interdisciplinary team ........................................ 1 2 3 4
c. facilitate interdisciplinary communication among all persons working with individuals with disabilities ................................................................. 1 2 3 4

19. Safety Considerations: An Adapted Physical Education Specialist should...

a. apply principles of safety to wheelchair transfers, lifts, and assists needed when individuals with disabilities participate in physical activities ................................................................. 1 2 3 4
b. identify the scientific bases for specifically contraindicated exercises and activities for individuals with disabilities ................................................................. 1 2 3 4

20. Health Considerations: An Adapted Physical Education Specialist should...

a. apply principles of appropriate health practices to participation in physical and motor activities by individuals with disabilities ................................................................. 1 2 3 4
b. understand the effects of medication, fatigue, and illness on mental, physical, and motor performances of individuals with disabilities ................................................................. 1 2 3 4
c. understand the implications of personal hygiene, posture, and nutrition for individuals with disabilities ................................................................. 1 2 3 4

PLEASE TURN PAGE
Demographic Information

a. Are you: (Please circle one number)
   1 FEMALE
   2 MALE

b. In which age category are you? (Please circle one number)
   1 20-30
   2 31-40
   3 41-50
   4 51-60
   5 OVER 60

c. What is the highest degree you have completed? (Please circle one number)
   1 BACHELORS
   2 MASTERS
   3 DOCTORATE
   4 POST-DOCTORATE

d. Which one of the following best describes your present employment? (Please circle one number)
   1 ADAPTED PHYSICAL EDUCATOR K-12
   2 ADAPTED PHYSICAL EDUCATOR COLLEGE/UNIVERSITY
   3 REGULAR PHYSICAL EDUCATOR K-12
   4 REGULAR PHYSICAL EDUCATOR COLLEGE/UNIVERSITY
   5 OTHER (Please specify)

   __________________________

f. Which disability population do you prefer to teach? (Please circle one number)
   1 BEHAVIOR DISORDERED
   2 MENTALLY RETARDED
   3 ORTHOPEDICALLY HANDICAPPED
   4 OTHER HEALTH IMPAIRED
   5 SENSORY IMPAIRED

g. What level of disability do you prefer to teach? (Please circle one number)
   1 MILD
   2 MODERATE
   3 SEVERE
   4 PROFOUND

22. Would you like to receive a summary of the results of the study? (Please circle one number)
   1 YES
   2 NO

23. Are there any comments you would care to make about your experiences as an adapted physical education professional?

THANK YOU FOR YOUR ASSISTANCE
APPENDIX C

ADAPTED PHYSICAL EDUCATION
TASK FORCE MEMBERS
ADAPTED PHYSICAL EDUCATION TASK FORCE MEMBERS

Adapted Academy Members

Ernest L. Bundschuh  
Professor, Physical Education  
University of Georgia  

Karen DePauw  
Professor, Physical Education  
Washington State University  

Larry Irmer  
Coordinator, PEOPLE Project  
Phoenix, Arizona  

G. Robert Roice  
Consultant/Hearing Officer  
Santa Ana, California  

Therapeutics Council Members

John M. Dunn  
Professor, Physical Education  
Oregon State University  

Dianne Hurley  
Present Position Unknown  
Evans, Colorado  

Ellen Curtis Pierce  
Professor, Teacher Education  
California State Polytechnic University - Pomona  

Robert Strauss  
Professor, Physical Education  
Trinity University, Texas  

AAHPERD Unit on Programs for the Handicapped Members

Emilo DaBramo  
Director of Secondary Physical Education  
Marmaromeck Public Schools, New York  

Susan J. Grosse  
Instructor, Physical Education  
Milwaukee Public Schools, Wisconsin  

Robert L. Holland  
Adjunct Professor, Physical Education  
University of Cincinnati  

Joseph H. Huber  
Professor, Physical Education  
Bridgewater State College, Massachusetts  

Julian U. Stein  
Professor, Physical Education  
George Mason University, Virginia
APPENDIX D

LETTER TO ADAPTED PHYSICAL EDUCATION TASK FORCE MEMBERS
February 20, 1986

Dear Task Force Member:

I am in the process of developing a dissertation as part of my doctoral program in Special Physical Education at Oregon State University. The basis for my research is a questionnaire which was adapted from a set of guidelines for the preparation of specialists in Adapted Physical Education (see attached). I am aware of the important role you played in developing the Guidelines and therefore I am requesting your assistance.

Would you please review the attached guidelines to determine if the competencies are as applicable today as they were in 1981 when they were identified by your Committee? You may add, delete, or modify competencies as you see fit. Upon completion of your review, return the questionnaire in the self-addressed/stamped envelope which has been enclosed for your convenience.

I look forward to receiving your response.

Sincerely,

Stephen Dempsey

attachment
APPENDIX E

SURVEY COVER LETTER TO
COLLEGE AND UNIVERSITY PROFESSORS
May 12, 1986

Dear Professor,

Today, adapted physical education is recognized as an integral part of special education. This recognition brings with it the responsibility that we continually address selected issues including the quality of services provided and the identification of competencies required of those prepared to deliver the needed programs. I am conducting a survey of adapted physical educators to obtain the perception of individuals such as yourself regarding the importance of selected competencies and their relationship to the training of specialists in adapted physical education.

You have been selected to participate in the study because of the significant contribution you have made to the area of physical education for the handicapped. In order that the results of this study represent the thinking of professionals in adapted physical education, it is important that your questionnaire be completed and returned.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This number will allow your name to be crossed off the mailing list when you return your questionnaire so that you will not be bothered with additional follow-up materials. Your name will never be placed on the questionnaire itself.

The results of this research will help in the preparation of future adapted physical educators. A summary of the results of the study will be available after August 15, 1986, and will be shared with those who indicate on the questionnaire their interest in receiving a copy.

Please fill out the enclosed questionnaire and return it promptly in the postage paid envelope. I would be happy to answer any questions that you might have. Please feel free to write or call. The telephone number is (503)754-3221.

Sincerely,

Stephen D. Dempsey
Survey Coordinator
Doctoral Candidate
APPENDIX F

SURVEY COVER LETTER TO
ADAPTED PHYSICAL EDUCATION SPECIALISTS
Dear Colleague:

Today, adapted physical education is recognized as an integral part of special education. This recognition brings with it the responsibility that we continually address selected issues including the quality of services provided and the identification of competencies required of those prepared to deliver the needed programs. I am conducting a survey of adapted physical educators to obtain the perception of individuals such as yourself regarding the importance of selected competencies and their relationship to the training of specialists in adapted physical education.

You are part of a sample drawn from the National Directory of Adapted Physical Education Personnel. In order that the results of this study represent the thinking of professionals in adapted physical education, it is important that your questionnaire be completed and returned.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This number will allow your name to be crossed off the mailing list when you return your questionnaire so that you will not be bothered with additional follow-up materials. Your name will never be placed on the questionnaire itself.

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Sincerely,

Stephen D. Dempsey
Survey Coordinator
Doctoral Candidate
APPENDIX G

REMINDER POSTCARD TO
ALL SURVEY PARTICIPANTS
Last week a questionnaire seeking your view of adapted physical education teacher preparation programs was mailed to you. You are one of a select few to be sampled in this study.

If you have already completed and returned your questionnaire please accept my sincere thanks. If not, please do so promptly. Because you are one of a small representative sample of professionals to participate in the survey, it is important that your views be included.

The results of the survey will enable us to better prepare adapted physical education personnel in the future.

Sincerely,

Stephen D. Dempsey
Survey Coordinator
Doctoral Candidate
APPENDIX H

SURVEY FOLLOW-UP LETTER TO COLLEGE AND UNIVERSITY PROFESSORS
June 2, 1986

Dear Professor,

About three weeks ago I wrote you seeking your opinion on the competencies of an adapted physical education specialist. Your responses will be used to shape and update adapted physical education teacher preparation programs and may assist in state certification of adapted physical educators. I am writing you again because of the significance each questionnaire has to the usefulness of this study. You have been selected to participate in the study because of the significant contribution you have made to the area of physical education for the handicapped. In order for the results of this study to be representative of the opinions of adapted physical educators, it is essential that each person in the sample return the questionnaire. Your responses will be kept confidential.

If you have already completed and returned your questionnaire, please accept my sincere thanks. In the event that you did not receive a questionnaire, or it has been misplaced, I have enclosed another questionnaire and an addressed, stamped envelope for your use. Please complete the form at your earliest convenience.

Your contribution to the success of this study is greatly appreciated.

Sincerely,

Stephen D. Dempsey  
Survey Coordinator  
Doctoral Candidate
APPENDIX I

SURVEY FOLLOW-UP LETTER TO
ADAPTED PHYSICAL EDUCATION SPECIALISTS
June 2, 1986

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If you have already completed and returned your questionnaire, please accept my sincere thanks. In the event that you did not receive a questionnaire, or it has been misplaced, I have enclosed another questionnaire and an addressed, stamped envelope for your use. Please complete the form at your earliest convenience.

Your contribution to the success of this study is greatly appreciated.

Sincerely,

Stephen D. Dempsey
Survey Coordinator
Doctoral Candidate