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ABSTRACT

This paper describes a model for optimum professional preparation and development in the field of physical education. Five internal problems within the physical education profession are listed, and a disciplinary approach to physical education is discussed. The author's model for optimum professional development is then described. The model contains the following five components: (1) professional practice, (2) professional preparation, (3) disciplinary research, (4) theory, and (5) the philosophy of "X" ("X" being the prevailing social values). The paper also contains discussions of future professional preparation needs, the general professional education dilemma, and specialized professional preparation. A list of selected references is also included. (RC)

A MODEL FOR OPTIMUM PROFESSIONAL PREPARATION AND DEVELOPMENT IN A FIELD CALLED PHYSICAL EDUCATION

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It is a truism that a profession of necessity rises or falls depending upon the extent and validity of the body of knowledge undergirding it.* Because of disenchantment with the name of "physical education," (2 and 12) and because the field has not yet truly re-adjusted its sights to bring about more rapid achievement of needed scientific knowledge (14), this paper will attempt to describe a model for optimum professional preparation and development in a field that is currently called physical education in most places in the world.

Mankind is said to be on a "collision course" with the future, because the tempo of civilization is increasing so rapidly that people may not be able to adjust satisfactorily to the new demands that are being made of them. (9) This has been called a "century of transition," and men must learn to master themselves along with their continuing effort to master nature. (1, p. 24) As might be expected, all of education -- including higher education -- has not been able to escape the influence of a variety of social forces. School and university appear to many to be malfunctioning to a considerable extent. They are being challenged for not providing new skills in "learning, relating, and choosing" that could help men and women live fully in the emerging society of super-industrial civilization. (9, p. 367) Even though education doesn't seem to be doing very well in helping students to think clearly and forthrightly

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* A paper presented at the Physical Education Seminar of the Singapore Sports Council, Aug. 1-3, 1974.

about the basic problems besetting society, and despite the fact that a great many people have expressed considerable concern about the realization of personal values in their lives, there doesn't appear to be a great concern on the part of most young people for the achievement of a well-rounded education embodying arts and science courses that bespeak a broad general education. (8) The idea is often to get the necessary education for a job that will provide enough money to cope with the higher standard of material living becoming available all over the world.

Physical Education and Athletics Caught in the Middle

Physical education and athletics, typically promoted by leaders committed to the advocacy of conservative cultural forces, is caught right in the middle of the cultural transformation taking place. Physical education and athletics usually finds itself in a mildly or strongly defensive posture. Professional leaders are gradually being forced to make an effort to understand what idealistic youth means when they use such terms as "releavance," "accountability," and "involvement." Past evidence lends credence to the prevailing belief held by some that the physical education profession will give ground grudgingly to the demands of the future. Furthermore, over and above those professionals and citizens who see increasingly more exercise as life's panacea and who will always be with us, the large majority of professional thought is so rudderless that almost any seemingly legitimate Messiah with a "palatable" doctrine could lead us to the "ideal program."

Five Internal Problems

Speaking to the American Academy of Physical Education at Detroit in 1971, this writer called for a concerted professional effort to "put our house in

order" by sharpening the issues, by placing them in some order of priority, and by urging the field to "get in step" with the demands of changing times. (15) Five internal problems of a major nature were postulated:

1. "Specific Focus Approach" vs. "Shotgun Approach" - should the profession attempt to unite behind the idea that the professional task within formal and informal education is to teach humans to move efficiently and with purpose in sport, dance, exercise, and play within the context of man's socialization in an evolving world?

2. "The Physical Education vs. Athletics Encounter" - does the profession (in the United States) dare to speak out in a statesmanlike, forcible manner, against poor education practices in competitive athletics?

3. "The Male-Female Dichotomy in Physical Education" - can men's and women's departments (in the United States) be amalgamated equitably so that greater professional strength will be gained at the same time that money for operation is being saved?

4. "Professional Preparation Wing vs. Disciplinary Wing" - can the field of physical education make the adaptation to the newer disciplinary approach - that is, can we successfully provide opportunities for undergraduate students to choose options within their curricula that will enable them to move eventually in any one of a number of professional directions?

5. "The Bio-Science vs. The Humanities-Social Science Controversy" - is it possible for faculty members teaching and researching in the bio-sciences to live in peace with colleagues forming undergraduate and graduate options in the humanities and social science aspects of physical education and sport?

A Disciplinary Approach in Physical Education

Perhaps the first of a number of articles characterizing physical education as an incipient discipline was that presented by Franklin Henry at the 1964 conference of the National College Physical Education Association for Men in the United States. Significant contributions to thought on this subject have been made by other theorists (Fraleigh, Kenyon, Metheny, and others). This writer recalls that Henry's statement made great sense to him when first presented, but that Henry himself expressed difficulty when it came to conceptualizing about the borderline "between a field such as physiology and the field of physical education." (5) He implied further that physical education would gradually become more differentiated from other disciplines as it became more "specialized, complex, and detailed" in the investigation of those phenomena occurring in the life of man which were of central interest to the scholar in this field and of peripheral interest to scholars and researchers in other disciplines.

This subject became much clearer to the writer after a series of seminar discussions at the University of Illinois, Urbana, and the resultant contribution made by Cyril White, a sport sociologist, now in Belfast, Ireland. White argued that physical education had many of the characteristics of a multidiscipline and some of a crossdiscipline. He postulated that physical education's "future development to interdisciplinary level will require a far greater degree of sophisticated research abilities and orientations than the field at present possesses." (10: see Figure #1)

Even before this type of conceptualizing about the composition of a discipline took place, a great deal of effort had been expended by many in an attempt to define what constituted the "discipline of physical education." One such effort was the Big Ten Body of Knowledge Project in the United States

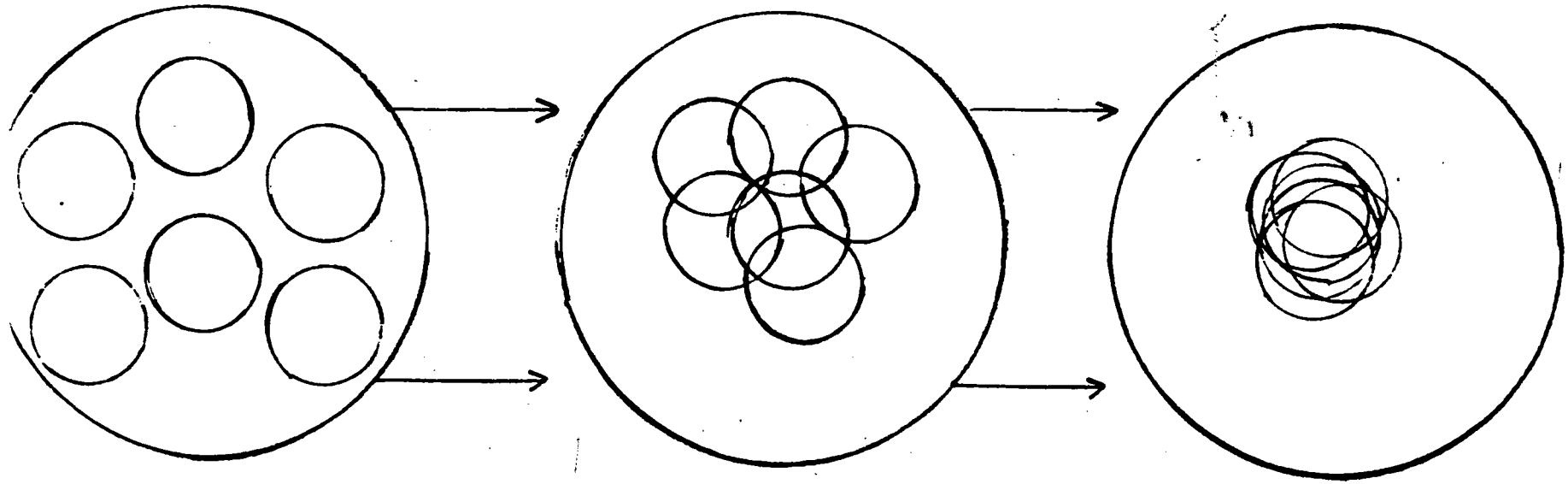
promoted largely by the late Arthur Daniels (Indiana) and King McCristal (Illinois). (16) At the very least this helped to fill in the "circles of the diagram" depicting the projected stages of development outlined above.

Recommended Composition of the Discipline

The composition of the physical education discipline will in all probability be an "evolving entity" over the years. This writer has tentatively accepted the following definition of the discipline of physical education: "the study of human motor performance in sport, dance, play, and exercise." For purposes of curriculum development and discussion, the discipline is viewed as containing arts and social science aspects and bio-science aspects. (See Table #1.) A further discipline definition has been organized on the basis of the descriptive aspects of the sub-areas of study within physical education (with accompanying related discipline affiliation). (See Table #2.)

FIGURE #1

MULTIDISCIPLINE → CROSSDISCIPLINE → INTERDISCIPLINE



PHYSICAL EDUCATION -- A CROSSDISCIPLINE ON
THE WAY TOWARD BECOMING AN INTERDISCIPLINE?

Courtesy of
Cyril M. White, Ph.D.
Belfast, Ireland

TABLE #1

The Composition of the Physical Education Discipline

(1) Arts and Social Science Aspects

Sub-Area 1

History, Philosophy, and Comparative and International Physical Education, Sport and Dance

Sub-Area 2

Sociology, Social Psychology, and Anthropology of Sport, Leisure, and Physical Activity

Sub-Area 3

Administrative Theory and Practice of Physical Education and Athletics

(2) Bio-Science Aspects

Sub-Area 4

Exercise, Physiology, Anthropometry, and Scientific Training in Sport, Dance, and Exercise

Sub-Area 5

Motor Learning and Performance, Growth and Development Related to Sport and Physical Acitivity

Sub-Area 6

Anatomy, Kinesiology, and Analysis of Movement in Sport, Dance, and Physical Activity

Sub-Area 7

Health Problems Related to Sports and Exercise

Dance is conceived as being a "movement art and science," and the field will include a disciplinary approach to dance. This area of specialization is in its initial stages, and is being started as an area of concentration at the undergraduate level.

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TABLE # 2

A Discipline Definition Based on Descriptive Aspects of the Sub-Areas of Study within Physical Education
(with Accompanying Related Discipline Affiliation)

Arts and Social Science Division		Bio-Science Division	
Description	Related Discipline	Description	Related Discipline
Meaning and Significance	Philos., History International, etc.	Biomechanical Analysis	Physics Anatomy
Social and Cultural Aspects	Sociology Anthropology	Anthropometry	Anthropology Physical Medicine
Aesthetic Aspects	Fine Arts	Motor Learning and Development	Psychology Medicine
Behavioral Aspects	Social Psychology	Physiological Aspects	Physiology Medicine
Administration and Management: Curriculum Development and Instruction	Administrative Science and Related Disciplines Education	Health Aspects (including Injuries and Rehabilitation through Exercise)	Physiology Medicine (Physical) Psychology Public Health
Measurement and Evaluation (through res. techniques employed in related disciplines as well as in physical education)	Mathematics	Measurement and Evaluation	Mathematics

Theory and Practice of Team, Dual, and Individual Activities in Sport, Dance, and Exercise.

A Model for Optimum Professional Development

In an effort to clarify for himself, and perhaps for others, what has been a muddles matter during the 1960's, a model for optimum prefessional development in a field called "X" (physical education) has been conceived. (See Figure #2) It is a model which can in all probability be applied to other professions as well (e.g., law or medicine). It includes the following five sub-divisions: (1) professional practice, (2) professional preparation, (3) disciplinary research, (4) a theory embodying assumptions and testable hypotheses, and (5) operational philosophy.

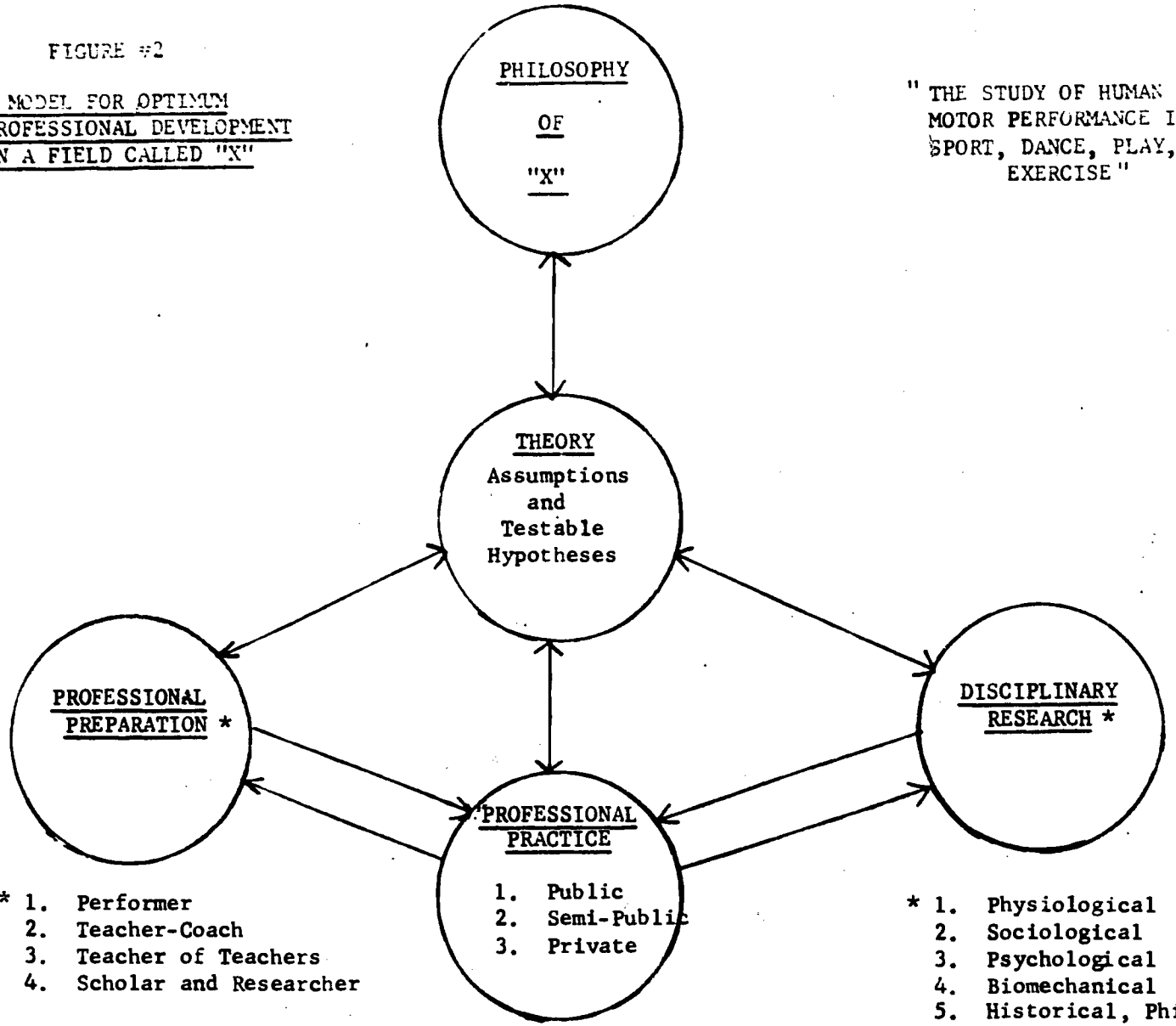
Professional practice can be characterized as (1) public, (2) semi-public, and (3) private. Professional preparation should be designed to educate (1) the performer, (2) the teacher-coach, (3) the teacher of teachers, and (4) the scholar and researcher. Disciplinary research includes (1) the physiological, (2) the sociological, (3) the psychological, (4) the bio-mechanical, and (5) the historical, philosophical, and comparative aspects of human motor performance in sport, dance, play, and exercise.

The assumptions and testable hypotheses of theory should comprise a "coherent group of general propositions used as principles of explanation for the phenomena" (7) exhibited in human motor performance in sport, dance, play, and exercise.

Finally, inclusion of the philosophy of "X" as an "overarching entity" in the model propounded is based on the belief that the value system of a society will in the final analysis be gradually realized within a social system. (6) For the purposes of this presentation, this means simply that decisions regarding the development of a profession are based on the prevailing social values over and above any scientific evidence that may become available.

FIGURE #2

A MODEL FOR OPTIMUM PROFESSIONAL DEVELOPMENT IN A FIELD CALLED "X"



" THE STUDY OF HUMAN MOTOR PERFORMANCE IN SPORT, DANCE, PLAY, AND EXERCISE "

* 1. Performer
2. Teacher-Coach
3. Teacher of Teachers
4. Scholar and Researcher

* 1. Physiological
2. Sociological
3. Psychological
4. Biomechanical
5. Historical, Philosophical, and Comparative

E.F.Zeigler

Professional Preparation Needs in the Future

In the future the profession of physical education will probably find an increasing number of applicants for graduate study possessing academic backgrounds other than that of the typical undergraduate physical education major. This type of individual needs a core of specialized professional preparation work in physical education, and perhaps also general professional education courses depending upon which type of graduate program he plans to enter (i.e., Master of Science or Master of Science in Teaching).

From another standpoint, the typical physical education major applying for graduate work in those universities offering the Ph.D. program often finds that his undergraduate program has not included a sufficiently strong emphasis in either the humanities or the social sciences - and perhaps even in the natural sciences. The physical education major may find, therefore, that he is quite weak in those subject-matters which now are emphasized in the current "disciplinary approach" to the development of a body-of-knowledge for our profession.

Obviously, an undergraduate professional program in physical education cannot be "all things to all people." Even a carefully designed, five-year curriculum could not produce graduates prepared to study profitably in all types of graduate study presently offered in our field. Thus, directors of graduate programs are faced with the problem of deciding just what is an irreducible minimum of course experiences that will be considered acceptable for prospective graduate students with different backgrounds applying for admission into several types of graduate programs in physical education.

Generally speaking, the applicant for graduate study should have had a broadly based general education including a variety of course experiences

in the humanities, social sciences, and natural sciences.[1] In recent years there has been general agreement that at least one half of the undergraduate program ought to be able to be classified as "general education."[2] Realizing the impossibility of including all subject-matters in the undergraduate curriculum, the following listing of courses (or the knowledge, competencies, or skills represented by these course experiences) ought to be represented at some point in the general education background of the prospective graduate student:

Humanities (incl. Mathematics)	Social Sciences	Natural Sciences
English Composition	Psychology	Biology
American Literature	Social Psychology	Chemistry
Foreign Language	Abnormal Psychology	Zoology
Philosophy	Sociology	Geology
History	Cultural Anthropology	Physics
The Arts	Economics	Human Anatomy
College Algebra	Political Science	Human Physiology

Note: There could be a "great debate" on whether any subject should be included or excluded. Further, some of these course experiences might necessarily have to come at the high school level.

The General Professional Education Dilemma

If a student wishes eventually to teach or coach in the publicly supported schools (and this often includes teaching at the junior college level), he is faced with meeting state or provincial certification requirements for teachers.

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[1] These recommendations are grounded to a considerable extent on Professional Preparation in Health Education, Physical Education, Recreation Education. Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1962. Professor Zeigler was a participant in this Conference and prepared the background paper on the history of professional preparation in physical education (pp. 116-133).

[2] The traditional subject-matter approach needs modification as soon as possible in the direction of one in which stress is placed on the development of competencies and knowledge through a planned sequence of problem-solving experiences of a laboratory nature. This comment applies to all phases of education.

A college or university teacher is typically not required to show evidence of such certification to his prospective employer. This is not to imply, however, that course experiences in general professional education are not needed by most prospective teachers and coaches. The implication here is that teachers should possess certain knowledge, competencies, and skills about the teaching and coaching act itself!

It seems most reasonable, therefore, to recommend that prospective teachers and coaches should have fine course experiences in the following areas:

1. Social Foundations of Education (history, philosophy, sociology, and comparative education)
2. Educational Psychology (man's equipment for learning and the learning process)
3. Educational Administration (organization and administration of the public schools)
4. Methods of Teaching (generally and specifically as applied to physical education and sport)
5. Student Teaching and Coaching

Specialized Professional Preparation

Exactly how much specialized professional preparation should be required prior to the granting of "regular standing" to a graduate student in physical education and sport is a really thorny problem. (The writer faced this problem personally once, and found himself confronted with professional, ethical, university, and practical considerations.) Obviously, a university should not be so restrictive that people are automatically scared away; on the other hand, it would not be fair to the profession or the individual to downgrade the undergraduate specialized professional preparation within the field by assuming that the graduate student from another field has nothing to "make up" so long

as he is reasonably skilled in motor and athletic performance and has some fine personality traits. Somewhere between these two extremes there must be a "happy medium" - an irreducible minimum of course experiences in physical education and sport. (And it must be stressed strongly at this point that a prospective graduate student should be given every opportunity to proficiency as much undergraduate professional theory and practice as possible. We should not ask a man or woman to "spin wheels" making up course work in subjects where we know they have reasonable proficiency.)

Everything considered, then, what should be required of the prospective graduate student in professional physical education and sport? The following recommendations seem reasonable:

Introduction to Health, Physical Education, and Recreation
History of Physical Education and Sport
Philosophy of Physical Education and Sport
Administration of Physical Education and Sport
Sociology of Sport
Social Psychology of Sport (and Phys. Educ.)
Physiology of Exercise
Kinesiology (Biomechanics)
Measurement and Evaluation in Physical Education and Sport
Psychology of Sport (motor learning)
Therapeutic Exercise

Professional activities courses in exercise, team sports, individual sports and dance (app. the equivalent of 12 semester hours)

Some Final Considerations

In this presentation an effort has been made to describe a model for optimum undergraduate professional preparation and development in a rapidly developing field. Physical education and sport -- possibly a good "holding pattern" term for the present -- is a profession with many problems of both an internal and an external nature. Its practitioners need to be awakened to the urgent demands of this "century of transition" and to shake off to a considerable extent what has been often called the "deadening hand of tradition."

Fortunately the disciplinary aspects and possibilities of the field have become increasingly clear within the past ten years, and not surprisingly it is now evident that physical education and sport has roots within the humanities and social sciences equally as strong as within the biological and natural sciences. This becomes apparent when one considers fully the many ramifications of a definition such as "the study of human motor performance in sport, dance, play, and exercise."

A model for optimum professional development was recommended. It included five subdivisions: (1) professional practice, (2) professional preparation, (3) disciplinary research, (4) a theory embodying assumptions and testable hypotheses, and (5) an operational philosophy.

Finally, as the need for sound undergraduate and graduate degree programs in physical education was anticipated for all countries of the world, an effort was made to present professional preparation needs for the future. It was stressed that all students should be involved in a broad program of general education that included the humanities, mathematics, the social sciences, and the natural sciences. The need for certain well-taught general professional education courses(e.g., education psychology) was presented. Finally it was urged that all students should experience an "irreducible minimum" of specialized prefessional preparation courses in physical education and sport (e.g., biomechanics and kinesiology). Such a program could well be implemented through the employment of a problem-solving approach that allows the student to demonstrate relative mastery of selected knowledge, competencies, and skills.

The field of physical education and sport has a vital function to fulfill in all countries of the world through the liberal education and service that it can provide to people of all ages. Through the adoption of a sound model

for optimum professional preparation and development, these immediate objectives and long range aims can be reached within a relatively short period of time. The goal is most assuredly well worth the effort!

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