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Professional Preparation of Physical Education Teachers
at the Undergraduate Level: An Analysis and Comparison
Between the United States and China

Sixin Xiang

A dissertation presented to the
Graduate Faculty of Middle Tennessee State University
in partial fulfillment of the Requirements
for the Degree of Doctor of Arts

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Professional Preparation of Physical Education Teachers
at the Undergraduate Level: An Analysis and Comparison
Between the United States and China

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ABSTRACT

Professional Preparation of Physical Education Teachers at the Undergraduate Level: An Analysis and Comparison Between the United States and China

Sixin Xiang

The purpose of this study was to investigate the methods of professional preparation of physical education teachers in the United States and China and to provide recommendations for improvement in professional physical education to the countries. The study was designed to examine the different practices for professional preparation in areas of the admission, curriculum content, and curriculum structure. Such a comparative study may be helpful in order to strengthen each nation's programs and to promote international understanding.

Seven universities in the United States and seven universities in China were selected for comparison after consulting with experts in the field. Data were collected through reviewing undergraduate catalogues, departmental documents, teaching curricula, and documents issued by the U.S. Department of Education, the National Association for Sport and Physical Education, the State Education Commission (China), and the State Physical Education and Sport Commission (China). A descriptive study was conducted discussing the admission, curriculum content, and curriculum

structure. Means and percentages were calculated for the number of courses required and class hours required for the areas of general education, major studies, and pedagogical requirements. T-tests were performed on the means for each area to examine whether there were significant differences at .05 level between the countries.

The most significant characteristics of Chinese programs were: (1) strict selective admissions; (2) the major course of study consumed as much as 75 percent of the total program with emphasis on sports skill learning; and (3) student teaching experience was under the full control of the physical education department.

The most impressive features of the American programs were: (1) general education comprised of one third of the total program and covered a very broad liberal and scientific knowledge base; (2) activity and sport performance courses comprised of a very small portion of the total coursework. However, the knowledge of motor learning and development was emphasized; and (3) requirements for professional education were highly emphasized. These requirements were reflected by the stringent admission and retention standards to teacher education, the length of the directed teaching experience, and the system of teacher licensure.

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Chapter 1

Introduction

The world is becoming smaller with the development of communication techniques and transportation modalities. Interaction between different countries through exchange of scholars and students frequently and easily occurs. The world is often considered as a 'global village', and as members of this village, we should be conscious of international relations. Historically, one significant point of contact between nations has been in the area of sports and athletic competition.

Physical education, as a necessary part of total education, is a common cultural phenomenon in this world. Knowing how physical education is conceived and conducted in various nations would conceivably promote relationships between nations. However, comparative studies of physical education in different countries have rarely been conducted. Actually, it has only been since the International Society on Comparative Physical Education and Sport (ISCPES) was established in 1978, that comparative study in physical education and sport has become a specific area of study. A study of the preparation of physical education teachers of two global powers, the United States and China, would be of particular interest in this regard.

Purpose of the Study

The purpose of this study was to investigate the methods of professional preparation of physical education teachers in the United States and China. Recommendations were provided for improvement on the professional physical education to the countries.

The education system in China is changing greatly as a result of political and economic development. The physical education teacher has been challenged to search for new methods that meet the physical education needs of this changing society. In the United States, professional preparation of the physical education teacher has faced many issues that are reflected in the debate on the growth of the health and wellness curriculum to the detriment of the physical education curriculum, a proposed national curriculum, the oversupply of teachers and the shrinkage of physical education teacher programs, quality control, expansion of schooling for teacher education, and the content of the professional physical education curriculum (Lawson, 1993; Miller, 1988).

Through this comparative study, both nations may learn something new from each other regarding the training of physical education teachers. The study could also help each nation to better understand its own professional preparation

pattern through a cross-reference of the various patterns of similarity and dissimilarity between the other nations' programs. The author hopes that these recommendations will be considered in the ongoing reform of professional preparation of physical education.

Definitions

Basic Instruction Program (BIP)--The physical education program that is designed for all students. In the majority of United States universities, the BIP is part of the required general education program. In China, this program is called 'public physical education'.

Class Hour--A scale used to weigh coursework. One class hour is equivalent to one 50-minute class meeting.

Directed Teaching--The student teaching experience.

General Studies Requirements (general education)--The program of courses that every undergraduate will complete in order to live as an aware and responsible member of a contemporary free society (MTSU Undergraduate Catalog 1995-1997).

Major Requirements--This term is defined as the physical education major courses or other courses related to the physical education major. Some of these courses are anatomy and physiology, health education, and nutrition.. These areas may or may not be offered by the particular

Department of Health, Physical Education and Recreation of the university offering a teacher preparation program.

Normal University--A university in China that primarily develops secondary school teachers. The university recruits high school graduates and the minimum schooling is four years.

Pedagogical Studies--These courses, including the student teaching requirement, are required by the college of education, and/or the state for licensure.

Physical Education and Sport Institute--In China, this is a special college that develops specialists in physical education and sport. The major responsibility of this institute includes developing physical education teachers for secondary schools, coaches for professional sport teams and amateur sport schools, training elite athletes, and conducting research.

Physical Education Teacher Education (PETE)--PETE has the same meaning as the professional preparation of physical education teachers. In this study, it primarily concentrates on the programs at four-year undergraduate institutions.

Prescriptive Electives And Free Electives--Elective courses in China fall into two parts, prescriptive and free electives. Free electives are the courses that could be

freely selected by physical education students. The only requirements to be met are the minimum credits. However, in the prescriptive electives, students are required to select one block of courses from several blocks, or have a block of courses tailored to meet their needs. Courses are selected in academic and activity areas from a list of limited courses planned by the department of physical education.

Secondary Normal School--This is a school in China which specializes in the development of elementary school teachers. The school recruits graduates from a lower level high school. The time it takes to complete the schooling is usually between two to three years.

Limitation of the Study

The data collected in this comparative study were limited to seven universities in the United States and seven universities in China. All subjects (universities) were deliberately selected after consulting knowledgeable professionals in the field. There are many universities and colleges offering physical education teacher education in both China and the United States. Programs may have the unique characteristics due to the geographical location, religious affiliation or background, financial status, and state (provincial) laws. Furthermore, this may be especially true in the United States because of the diverse

culture and more especially, because there is no federal mandated curriculum. Therefore, the reader is advised to recognize the limitation of this small size.

Additionally, this study presents the status of physical education teacher education in the mid-1990s in the United States and China. However, the program of professional preparation of physical education teachers is continuously being improved to meet the current needs of social development. Therefore, the latest changes should be duly noted.

Chapter 2

Review of Related Literature

This chapter is composed of six sections as follows:
(1) general background; (2) admissions; (3) the professional preparation curriculum; (4) the student teaching experience; (5) teacher licensure; and (6) accreditation. The related literature for the two nations were reviewed respectively. The information provided in the first section is necessary background information so that the reader may better understand this comparative study.

General Background

The United States

Public education in the United States is under the jurisdiction of the state and local governments. The private and religious sectors also have control over their own schools; however, many choose to meet the minimum standards of the state. This is quite different from that of most nations in the world. Americans believe that education is one of the principal means to achieve individual and social goals and that a decentralized educational system is the best method to provide more people with the opportunity for schooling (Funk & Wagnalls Corporation, 1993).

Since 1794, each state has successively established a department of education and enacted laws defining control

and finance of public education within its borders. Furthermore, the most significant unit of educational authority has been the local school district. Thus, schools in the United States tend to reflect the educational values and financial capacities of the communities in which they are located. Because education is developed separately within each state, there is much variation from state to state.

The U.S. Department of Education was officially established in 1980, principally to ensure quality education for all children through federal support, research programs, and sharing information. However, the principal affairs of education, such as compulsory school attendance, teacher qualification, and curriculum content, are controlled by the states with each state shaping its education based upon its unique resources and ideas (Berger, 1977).

Public colleges and universities in the United States have been autonomous regarding the missions of their schools, expenditure allocation, curriculum design, entry and graduation requirements, and the control of enrollment. However, this autonomy had been restricted by the alumni and the community, and has been shaped by professional associations and accreditation bodies. Private higher educational institutions are also different from the public

system. These schools are usually operated by a board of directors who have the authority to make decisions which affect their schools.

Teacher education, including professional physical education, is also different in each state. The program of professional preparation of physical education teachers, which leads to the bachelor of science or arts, typically is a four year endeavor. California has been the exception. It requires a five year program in which education courses are emphasized during the fifth year (O'Sullivan, 1990). Some universities such as Ohio State have even started to train physical education teachers at the graduate level only (Ohio State University Graduate Catalogue 1995).

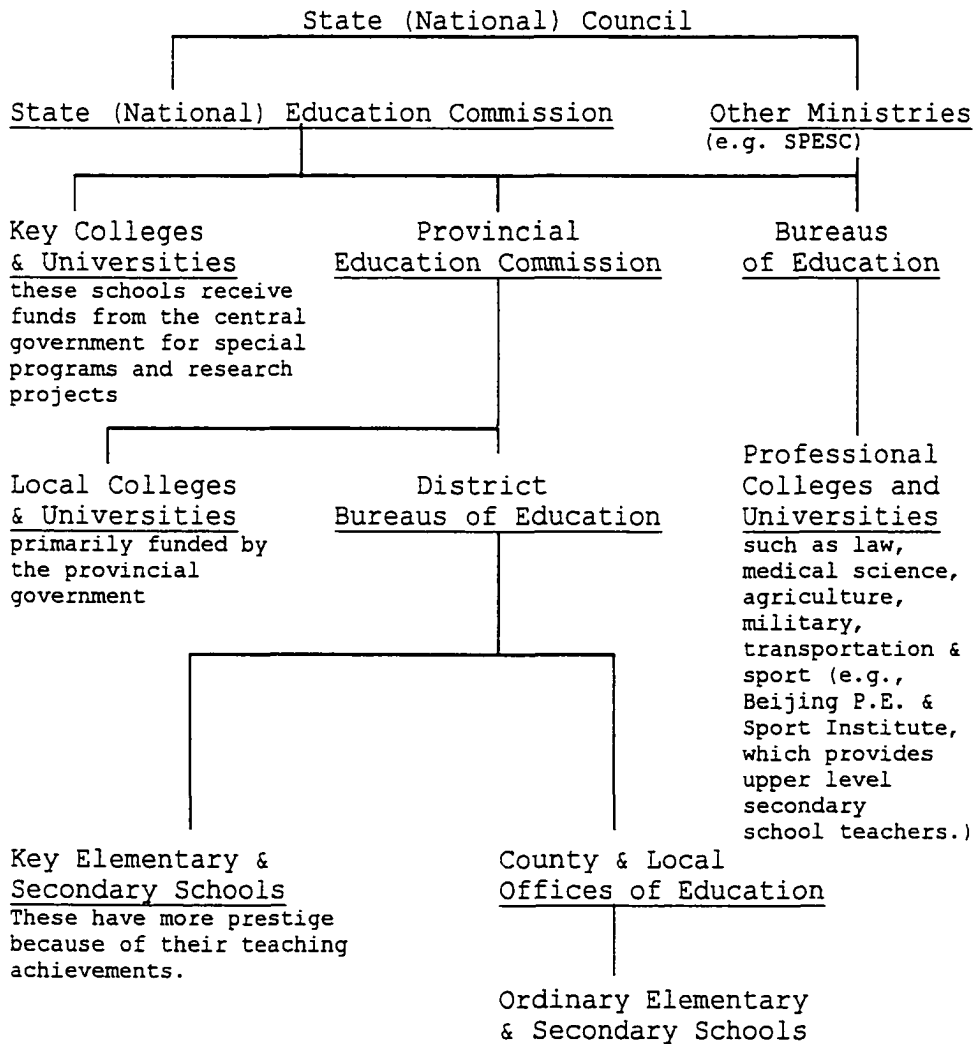
The structure of the physical education department is usually related to the size of the institution. Colleges and universities with less than 2,000 students are more likely to have combined physical education and athletic departments, while schools with more than 10,000 students tend to separate the two departments. At the major research universities, a group of faculty has responsibility for the graduate program while others are responsible for the undergraduate program (Sage, 1987; Seigel & Newhof, 1992).

China

Educational Administration in China is highly centralized. The State (national) Educational Commission (SEdC) governs the national education system (Figure-1).

Figure-1

The Structure of Educational Administration in China

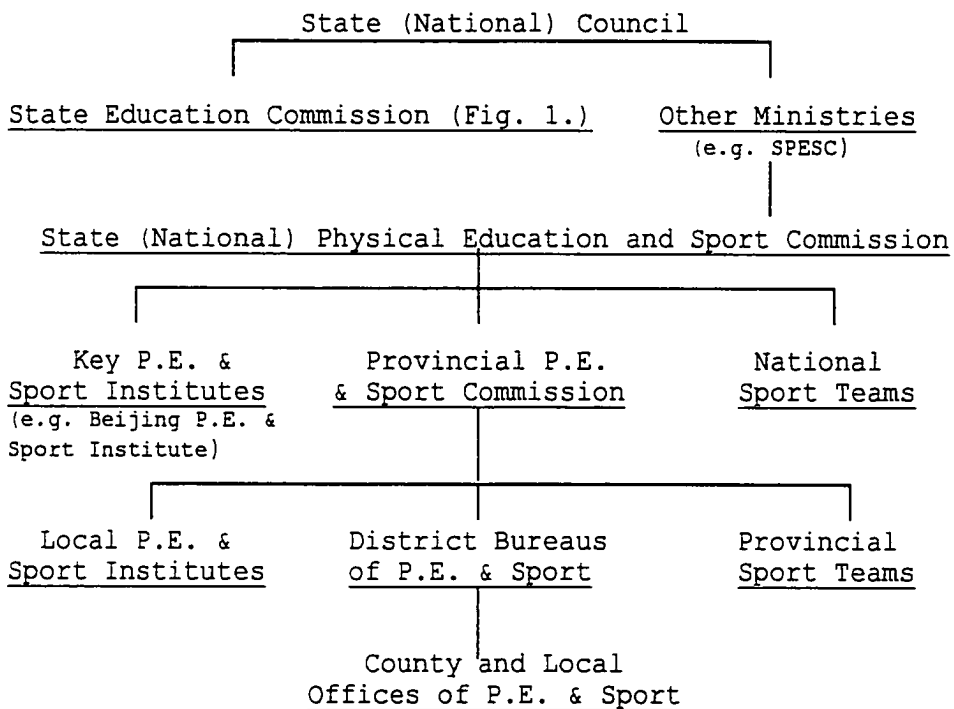


Physical education teachers in China basically are developed by two types of institutions. One is the normal university which is administered under the SEDC, and the other is the physical education and sport institute which is administered under the state (national) Physical Education and Sport Commission (SPESC).

The SPESC is the authoritative leading body which governs national sport affairs (Figure-2).

Figure-2

The Structure of Sport Administration in China



The major responsibilities of the SPESC are to organize sport events, train athletes and coaches, promote sports for the masses, conduct sport research, and to work with the SEdC in training physical education teachers. Physical education in schools and the professional preparation of physical education teachers at all levels are the responsibility of the SEdC; however, the SPESC aids the SEdC by providing research and training.

In 1987, six categories and nine emphases were approved by the SEdC and the SPESC for the field of physical education and sport majors at the undergraduate level (Figure-3). Two years later physical education and sport programs in higher education started to recruit individuals using the approved categories and emphases (the SPESC, 1989).

The physical education department in the normal university is completely separated from the basic instruction program, which is called 'public physical education' in China. The primary responsibility of the public physical education department is serving students in all majors other than physical education. These public physical educators also recruit and train the varsities, as well as organize intramurals.

Figure 3

List of Undergraduate Physical Education
and Sport Emphases in China

Category	Emphases
1. Physical Education Teaching	1. Physical Education for Teachers
2. Sports Training	2. Sport Coaching
3. Applied Social and Natural Science	3. Sport Management
4. Human Body Science	4. Bio-Physiological Science
5. Traditional Sports	5. Martial Arts
6. Trial Majors	6. Sport Journalism
	7. Exercise for Health and Rehabilitation
	8. Sport Psychology
	9. Physical Education and Sport for Police

Physical education departments in normal universities may have graduate programs in the areas of physical education pedagogy, sport psychology, exercise physiology, sport training, and sport bio-chemistry; however, at the undergraduate level, they offer exclusively professional physical education teacher education. In the physical education and sport institutes, professional physical education is just one part of their mission. These

institutes also offer non-teaching undergraduate degrees such as sport coaching, sport management, sport bio-physiological science, Chinese martial arts, sports journalism, sports psychology, and exercise for health and rehabilitation. The institutes are usually composed of a sport training department, a sport science department, an adult education department in physical education, and a graduate school in addition to the professional physical education department. Some of these institutes even have an attached athlete training school for the purpose of selecting potential elite athletes (Figure-4).

Figure-4

Programs in Physical Education and Sport Institutes

Program	Mission
Physical Education Department	Physical Education Teacher
Sport Training Department	Sport Coach
Sport Science Department	Sport Science Researcher
Adult Education Department	In-service Training for the Physical Education Teacher
Graduate School	Research & Professional Physical Education Faculty
Sport Journalism Program	Sport Journalist Sport Editor Sport Photographer
Sport Management Program	Sport Administrator Director of Mass Sport & Exercise Program
Athlete Training School	Selecting Potential Elite Athlete

Professional physical education along with other teacher education is categorized in three levels. The highest level is the four-year university program, which awards the bachelor of education and primarily trains physical education teachers for senior high schools. The second category is the two or three-year college program, which produces junior high school physical education teachers. The third category is the two or three-year program at the secondary normal school, which develops elementary school physical education teachers (Figure-5).

Figure-5

**Professional Preparation of Physical Education
Teachers in China**

Level	Schooling	Offered by	Recruitment Pool	Job Description
Undergraduate College Degree	4 years Above High School	PE & Sport Institute, Normal University, Comprehensive University, PE Teacher's University	High School Graduate	Teach Upper Level (Senior) Secondary School
Associate Undergraduate College Degree	2-3 years Above High School	Local Colleges and Universities	High School Graduate	Teach Lower Level (Junior) Secondary School
Secondary Normal School Diploma	2-3 years Above Junior High School	Senior Secondary Normal School	Middle School Graduate	Teach Elementary School and Kindergarten

Admissions

The United States

Since the 1960s, the supply of physical education teachers has exceeded the demand. Specific requirements for admission have been dropped and admissions to the professional physical education programs were basically based upon the general admission requirements to the institution as a whole (Scott, 1985). Every year, professional physical education programs produce more than 10,000 new professional faces for elementary and secondary schools (the U.S. Department of Education, 1995). This number exceeds the job market requirements.

Brassie (1980) warned that professional preparation should be stricter in screening future teachers and avoid the "hordes of certified ignoramuses" who otherwise would enter the teaching profession. McBride (1984) and Templin (1987) indicated that it had become a good time to increase the admission and retention standards and select the most talented individuals to become physical education teachers. As a result the number of professional programs would then be reduced.

Recently, the fitness level of the physical education teacher has been under consideration as an entry or exit requirement. Brandon and Evans (1988) found that elementary

and secondary physical education teachers have had below average levels of physical fitness. Fox, Kirby and Fox (1987) showed that the percent body fat of physical education teachers in their study was above the average values of 12 percent to 15 percent for men and 22 percent to 25 percent for women. Cardinal (1987), Melville and Maddalozzo (1988), Miller (1987), and Whitley, Sage and Butcher (1988) had similar findings. As a result, Melville and Cardinal (1988) have determined that individuals, were good role models to pupils, but their appearance did have negative effects on their teaching.

Melville and Jones (1988) revealed that 47 percent of undergraduate physical education programs were testing their students' fitness levels, however, only five of these schools used the test in screening for admission or as a requirement for graduation.

Dupper, Hickley, and Adam (1992) indicated that it was necessary to establish a minimum requirement for all physical education teachers to meet. These requirements should include the capability of demonstrating basic performance skills and competencies in physical fitness (cardiorespiratory endurance, muscular strength, flexibility, and body composition).

Eastern Washington University developed the 'Fit for

Hire' program. Students planning to major in physical education have been asked to take entry and exit fitness tests. The main purpose of the program is to help students develop healthy lifestyles and plan for future wellness (Kraus & Melville, 1993).

The State University of New York at Brockport has required physical education majors to achieve the fiftieth percentile, or above, on the American Alliance for Health related fitness test. In 1971, the University of South Florida made the decision to use interviews to evaluate applicants for selective admissions to the PETE program. The areas observed were communication, personal interaction ability, personal concern for physical activity and health, self-esteem, sensitivity and empathy, and motivation for choosing physical education (Hoffman, Boers & Klesius, 1975).

In trying to determine the methods of selective admission in the United States, the methods used by Norway, Finland, and Sweden were of interest to many practitioners. All three Scandinavian countries have recognized the importance of physical fitness as a qualification for prospective physical education teachers (Koenig-McIntyre, 1992; Martens, 1987). The primary purpose for adopting selective admissions is to ensure the quality of

professional physical educators (McBride, 1984). The use of selective admissions will provide such benefits as maintaining program quality and integrity, producing committed professionals, selecting talented individuals to teach, turning out more prestigious students, and as individuals, becoming a good role model (Crawford, Cicciarella, Caterino, & Cracchiolo 1994; Dewar, 1989).

Melville and Johns (1990) indicated that although approximately 80 percent of surveyed schools favored using fitness tests or some other tests as entry or exit requirements, there were reasons that the requirements were difficult to put into practice. Some of these reasons were related to legal concerns, irrelevance to the program goals, lack of faculty interest, and lack of national direction.

Opponents of fitness tests as a screening method indicated that no scientific evidence clearly had shown a positive correlation between passing a fitness or a sport test and effective teaching. The research further demonstrated that the subjects used were already physically fit when they entered into physical education programs (Proffit, 1992).

The numbers game became a more realistic issue, and the programs of professional physical education had to recruit a certain number of students in order to avoid shrinking or

disappearing altogether. Furthermore, without students, faculty would not have jobs. The need for numbers resulted in less screening, open admission policy, lower requirements, grade inflation and furthermore, degree inflation became necessary survival tactics (Cruse, 1976).

There are no specific nationwide or statewide requirements for selective admission standards. Each professional physical education program makes its own decision. If standards are used, the most probable methods of achieving those are through performance and written tests, ratings and observations, interviews, minimum grade point average (GPA), skill performance, minimum fitness level and a physical examination, and letters of reference (DaResa & Shields, 1982; McBride, 1984; Scott, 1985).

China

The SEdC and the SPESC are the bodies that establish nationwide standards for the selection of prospective physical education teachers. Professional physical education programs in each institution must follow these recruitment standards. China has had a shortage of physical education teachers. It was estimated that at least 300,000 more physical education teachers would be needed by the year 2000 (Qu, 1990; Zhan, 1992). Nevertheless, entry into physical education teacher programs is very competitive

and intensive because of the large number of applicants, which far surpasses the present means for training them.

Selective admissions into the program of professional physical education in China are comprised of four stages. The first stage is the basic qualification for application: the student must be a high school graduate, undergo a physical health examination, be 22 years or younger, and be single. In the other stages the student has to pass a physical fitness test, a sport skill test, and an academic examination for college entrance (the SPESC, 1989).

Professional Preparation Curriculum

The United States

In the 1981 American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD) professional conference, there was discussion of four model approaches to Professional Preparation in undergraduate education. The Competency-Based Teacher Preparation (CBTE) model viewed as its central purpose the development of students based on competencies. The competencies were derived from teachers as they conducted their profession in the real world (Enberg, Harrington & Cady, 1981). The Subject-Matter-Centered Model (SMCM) regarded motor play activity as the subject matter of physical education and designed the curriculum around activity courses (Locke, Mand & Siedentop,

1981). The Disciplinary Model for a Curriculum in Kinesiological Sciences (InDM) is based upon the belief that the science of human movement and sport is the essence of the curriculum and therefore, the curriculum should be built around the various disciplines (Husman, Clarke & Kelly, 1981). The Cross-Disciplinary Model is comprised of three components: general education, the subject matter field, and the professional preparation of physical educators. This is an integrated model that embraced both teaching and non-teaching elements (Morford, Lawson & Hutton, 1981).

In 1990, Grineski and Bynum illustrated a cooperative model that could maximize teacher preparation in physical education. Teachers had been considered either as skilled technicians, as artists, or as social activists. The author further indicated that these components were the three prevailing theoretical stances of teacher education. The authors then indicated that the competency-based model was a type of skill-based teaching and did not encompass all three elements of the cooperative model.

The professional physical education program has typically consisted of three components. The first component is general education, which comprises 30-50 percent of the coursework. The second component is the major requirements, which comprises 30-50 percent of the

coursework. The third component is pedagogical studies, taking up 35-55 percent of the coursework. Approximately 135 semester credits are needed for graduation. The three basic elements in the required major coursework are knowledge and skill in the scientific basis of movement, administration and methods, and various activities and teaching techniques (Grebner, Henderson, Keough & Mancuso, 1982; Lawson, 1981; O'Sullivan, 1990).

Murphy (1980) indicated that prospective teachers were required to take a broader range of courses, and education courses were greatly emphasized. The author further stated that in the physical education teacher education program, about 33 percent of the required courses was devoted to pedagogy, compared to 13 percent of courses in the discipline and 11 percent in performance or skill courses.

Because of the rigorous requirements in pedagogy and the new sub-disciplines added to the major studies, students often have found it very difficult to graduate and obtain a teaching certification within four years. As a result, Texas and Virginia have enacted legislation to limit the number of education course credits required for certification (Bain, 1990; Hawley, 1992; Lawson, 1988; Murphy, 1980; O'Sullivan, 1990). Others advocate one more year of concentration in teacher education for

certification, as is done in California. Several major institutions plan to offer teacher certification only at the graduate level (O'Sullivan, 1990).

Another long enduring debate is related to the number and type of movement performance (skill) courses that should be included in the professional preparation of physical education teachers. Snyder and Scott (1954) believed that the curriculum should provide broad skills in various sports rather than specialized sport skills. Grebner, Henderson, Keough, and Mancuso (1982) doubted whether it was necessary to take all of the skills courses offered in individual, dual, team, rhythm/dance, and aquatics. Lawson and Pugh (1981) questioned whether physical education major students should be required to possess actual performance skills and at what level of proficiency.

One survey (Strand, 1992) revealed that 41 percent of institutions required coaching credits for physical education majors and 51 percent required or recommended a coaching field experience prior to graduation. The study also reported or recommended a coaching field experience prior to graduation. The study also reported a mean of 1.6 coaching credits was required and the average semester credits for skill/activity courses was 9.3. Mathesius (1990) revealed that a total of 37 different activity

courses were listed as required courses by the various institutions with the top ten courses being gymnastics, swimming, volleyball, soccer, tennis, tumbling, folk dance, basketball, conditioning, and square dance. One course, track and field, was listed at twelfth place and was required by 47 percent of these institutions. One course, weight training, one of the most frequently taught activity classes in the public schools, was required by only three percent of these institutions.

The cost of health care has become a national primary focus. Physical education practitioners therefore ask whether physical education can have an impact on health problems. Some have indicated that fitness should be the dominant component in elementary, secondary, and even at the undergraduate level of physical education curriculum. Such a curriculum would make a great contribution to the development of the student's healthy lifestyle and health knowledge. Furthermore, researchers have indicated that it is possible to integrate health and physical education equally in the curriculum since they share many of the same goals. In the schema, health education represents the theoretical component and physical education represents the practical component. Some school districts have started to use this combined curriculum model. Barrett (1993), Loper,

Scheer, Ansorge, Bahls and Wandzilak (1989) and Simon (1971), suggested that professional preparation for physical education would be influenced if this model was accepted by more school districts. Bocket (1992), Docheff (1993), Edginton, Davis & Hensley (1994), Ellery (1992), Fargen (1992), Goodwin (1993), Johnson (1993), Lawson (1993), McGhie (1993), McNeill (1994), Mielke (1993), Mohor (1992), Monti (1994), Schiemer (1994), Spillman and Fasenmyer (1992), Wilson (1993, 1994), and Young (1992) all agreed.

The University of Nebraska at Lincoln has revised its physical education teacher preparation program with an emphasis on healthful living outcomes. Barrett (1993), Corbin (1993b), and Smith and Cestaro (1992) indicated that this change in programming would bring about other issues such as accreditation and certification standards.

In the professional preparation of physical educators, kinesiology and the scientific component are currently emphasized. This approach has led to name changes, which has caused fragmentation in the profession (Bird, 1988). More than 100 different new names, formerly known as "physical education," have been adopted throughout the United States (Irwin & Pettigrew, 1993).

Edwards (1989b) revealed, through studying the programs in 240 universities, that performance skills and teaching

methods related courses decreased by 50 percent, while scientific courses increased by 500 percent. Brassie and Razor (1989) and O'Sullivan (1990) indicated that, expansion of new knowledge and sub-disciplines taught in physical education programs had been often at the cost of liberal arts, pedagogical education, activity classes, and performance related courses.

Corbin (1990) and Zeigler (1986) reported that there was an increase in the requests for revising professional preparation programs. There was also a need for a better balanced curriculum between 'science' and 'art', and developing a sound body of knowledge.

Barrette, Fiorentino, and Knowalski (1993) and Miller (1988) suggested that in order to avoid 'hire education' instead of higher education, professional preparation should require more liberal education courses, reduce the amount of factual information, emphasize critical thinking and problem solving, integrate courses and design them in a cluster, using a thematic approach. Furthermore, Lambert (1989) and Lawson (1985, 1988) suggested that the curriculum should be carefully designed and practical knowledge be selected to meet the student's needs. They further suggested that the curriculum content and knowledge delivery methods should be closely linked to the student's future profession. However,

they found that many curricula were driven by faculty self-interest and what the faculty felt comfortable teaching, instead of meeting the needs of the students.

Bennett, Howell, and Simri (1983) have found that the most frequent ratio of theoretical to practical courses in the curriculum around the world was 50:50, or 60:40. The ten most frequently listed theoretical subjects offered in rank order were anatomy, methods of teaching, health education and hygiene, kinesiology and biomechanics, physiology, exercise physiology, first aid, principles of education and pedagogy, history of physical education, and test and measurements. The ten most common activity courses in rank order were swimming, basketball, volleyball, tennis, gymnastics, gymnastics on apparatus, dance, corrective exercises, folk dance, and soccer.

Most institutions have also offered minors and students are encouraged to pursue a second teaching certification in another field such as health, general science, or social studies. This intense preparation could increase the individual's career option upon graduation. Typically, an extra eighteen to twenty-four semester hours are needed for a second minor. The coaching minor, one popular selection, usually includes six areas, which is comprised of the medical-legal, human growth and development, psycho-social,

biophysical, theoretical and technical aspects of coaching, and a practicum in athletic coaching (Milne, 1990; O'Sullivan, 1990; Seefeldt, 1992).

China

The professional preparation curriculum for physical education teachers in China is categorized in three parts: general required courses, required major courses, and physical education selective courses. After the formation of the new China in 1949, the preparation of professional physical education teachers has followed the Soviet Union's model, which focus on activity courses and sport skill teaching and learning. The activity coursework often consumes as much as 60 percent of the major requirements. Since the implementation of an open policy in 1979, knowledge and information from developed countries has been introduced into China. From the 1980s, the ratio of academic courses to activity courses has been continually changing. The percentage of activity courses and skill performance related courses declined from over 60 percent to 40 percent, and the academic courses increased from 36 percent to 45 percent currently. The approach taken for professional physical education in China can be described as: (1) equal emphasis on both academic courses and motor skill and sport skill courses; (2) students have been

required to be specialist in one sport while completing the broad basic activity coursework; (3) expansion of selective courses of which there are more options available now than have been in the past (Teng, Xu, Cui & Luo, 1991).

Teng, et al. (1991) have further suggested that the professional physical education curriculum in China should be reconstructed following four basic approaches. The first approach was to emphasize the basic knowledge courses and discipline courses; the second was that more new knowledge be adopted and taught in sub-disciplines. The third was that more elective courses be offered and students be encouraged to obtain a broad based level of knowledge, and the fourth approach was to emphasize pedagogical and teaching methods courses.

Since 1985, the State Education Commission has encouraged institutions to change the sport training model and direct the physical education teacher curriculum towards a more wholistic model encompassing physical, health, recreation, and athletics. During the same period the Physical Education and Sport Commission has urged each institution to reduce the number of required courses and to raise the number of elective courses as part of a revision of the professional physical education curriculum (Chi & Li, 1992, Xu, 1992).

Because there is a need to improve each student's marketability, it has become necessary for professional physical education institutions to produce students who have a broad knowledge and therefore, can be more competitive in the job market after graduation. As a result, Yang, Liu, Cui, Dongs, Li, Meng, Wang, & Yang (1993) addressed the possibility of establishing the model called 'one major and two minors'. The major was physical education while the first of the two minors was physical education for the masses (qun-zhong-ti-yu). The other minor could be selected from sport training, exercise for health and rehabilitation, or sport management. Liu, Zhang, and Jing (1994) had a similar idea. They believed that 'one major with multi-capability' was the near future goal of training physical education teachers as marketing economics in China was being shaped.

Huang (1992) suggested that professional preparation for physical education teachers be closely connected to real experiences in secondary school. His suggestions included that the physical education major should master the content of the secondary school, develop the ability to manage a class (the number of pupils in a physical education class in China may be 50 people or more). Huang also indicated that current activity courses were more likely to be treated as

sport training and he then criticized that this was an incorrect direction to follow. He suggested that progress in activity courses should be judged more by the capability of demonstration and instruction, than by the level of skill performance.

Xu (1992) studied the structure of the general competency levels necessary for students majoring in physical education. He believed that competency-based education was one of the more important considerations in the process of reforming the curriculum for professional physical education teachers.

Gao and Huang (1993) called the present model used in China, which has centered in sport skill learning, a kind of mechanical teaching-learning model. They emphasized that the purpose of physical education teaching should be to educate the whole individual with a combination of biological, psychological, emotional and social functions.

Student Teaching Experience

The United States

Pre-student teaching, sometimes called early field experience, is now currently emphasized by more institutions in the United States. The National Council for Accreditation of Teacher Education (NCATE) Guidelines encourages physical education programs to conduct field

experiences as early as possible (at least by the sophomore year) and to continue offering field experiences systematically throughout the physical education teacher program. The purpose of the pre-student teaching experience is to help students connect with, and become involved in their future profession. The content of the pre-student teaching experience usually includes observing classes, calling roll, correcting homework, leading warm-up exercises, working with parents, using teaching aids, performing demonstrations, and being involved in planning, teaching and evaluation of some units of instruction (Nixon & Vandien 1985; Placek & Silverman, 1983; Poole, 1994; Strand & Johnson, 1990). The average time spent on pre-student teaching has been expanded as the student continued the course of study. For freshmen, the mean hours are 6; for a sophomore, 22; and for the junior, 44 hours of involvement (Strandk, 1992).

Student teaching, as the culminating stage of the program, lasts from five to eight weeks, a semester, or a full academic year. The most common length of time spent in student teaching is a semester of full time teaching (Tannehil & Goc-Karp, 1992).

Many articles discussed problems related to the length of the student teaching phase, the student teacher's

attitude, and the qualifications of the cooperating teachers and faculty. For example, during the short phase of five to eight weeks, students may have been asked to teach at two different levels, sometimes even at different schools, and at the same time the site may have been far from the university and inconvenient to visit and monitor (Johns, 1993). Furthermore, less qualified cooperating teachers may be selected, and they lack the time and motivation to play a major role (Cusimano, 1990; Lock, 1979; Strand & Johnson, 1990). Other problems reported were that less qualified faculty were selected to supervise the student teachers, and there was limited involvement from the qualified professional physical education faculty (Strand, 1992). When observing student teachers, it was found that they were unfamiliar with the situation and their roles, they used much of instruction time for class control, the knowledge learned in the university might not have been positively transferred to practical situations, the student teacher did not take the training seriously viewing the training as an episode for a certain credit value (Hawley, 1992; Tennehill & Zakarajsek, 1988; Wendt, 1983).

The student teaching experience has been drawing much attention and criticism because it is perhaps the most widely accepted component in teacher education.

Practitioners in physical education have been making a special effort to improve the quality of student teaching. Adelphi University has designed a program called "SUPPORT-PE". It combines theory with practice more closely in order to improve the collaborative effort with the school district (Fiorentino, Knowalski & Barrette, 1993). Wyoming has provided a communication network that is an effective support system between the university's professional physical education faculty and the physical education teachers in the school system (Coulon & Byra, 1995).

China

Gao and Huang (1993) suggested that the period of student teaching in China should be expanded. They found that during the student teaching phase of six to eight weeks, student teachers were required to become involved in many activities including physical education teaching, morning exercises, extracurricular activities, school sport team training, sport events, and in the preparation of documents. The student teachers agreed that the period was not sufficient and that it was impossible for them to learn effectively in such a short period.

Teacher Licensure

The United States

In the fall of 1989, 45 states required testing for teacher certification. This was required either by state legislation or by regulations of the state board of education (Hawley, 1992).

The tests currently used may be developed by the state. However, the Professional Assessment for Beginning Teachers (Praxis Series) developed by the Education Testing Service (ETS) is the most frequently adopted. As of April 30, 1994, fifteen states used the entire package of the National Teacher Examination (NTE), while eight states used the Pre-Professional Skills Tests (PPST). Eighteen states required prospective physical education teachers to take Subject Assessments and the NTE specialty Area Test in Physical Education. The purpose of the Praxis Series is to provide measures of academic achievement and proficiency for students completing college or provisional teacher preparation programs. The Praxis Series also provides measures of academic achievement for individuals in the professional areas (the ETS, 1994).

Research revealed that physical education majors have scored significantly lower as a group than all other majors on the tests of communication skills and general knowledge.

The same was true for the professional knowledge tests (Pultorak, 1990, 1994.) However, a number of professionals (Pultorak, 1990; White, Rush, Maneval, & Hefley, 1993) questioned the effectiveness of the NTE Core Battery tests because they found that the NTE was not any more accurate than GPAs in the prediction of academic performance. Furthermore, they argued that several very effective teachers had to relocate to states not requiring the NTE because they failed to attain the minimum score.

In terms of teacher certification, Tannehil and Goc-Karp (1992) revealed that 93 percent of the institutions granted K-12 certification, 22 percent award 7-12 certification. Other options were frequently K-6 or K-8 certification.

China

The system of teacher examination and teacher certification does not exist in China. However, teachers in primary, junior and senior high schools are required to hold a secondary normal school diploma, a college associate degree, and undergraduate degree respectively (Deng, 1995a). Additionally, the SEDC is considering establishing a teacher certification (Xingmin Evening News, 1995).

For a new teacher, one year probation is required. If the performance is satisfactory the individual then will be

accepted as a formal teacher.

Accreditation

The United States

A unique feature of higher education in the United States is that of accreditation. Accreditation can be at the state, regional, or national level. The National Council for Accreditation of Teacher Education (NCATE) is the most powerful professional accreditation body for teacher education at the national level. The main purposes of accreditation are to: (1) establish academic standards for teacher education, (2) evaluate teacher education programs in regards to the program's objectives, program elements, course content, required knowledge delivery, and (3) encourage teacher education programs to continue to improve (AAHPERD, 1992).

A professional physical education program seeking NCATE accreditation should follow the NCATE's approved curriculum guidelines, and then prepare a series of very detailed documents and reports to be sent to the NCATE. The documents will then be examined and evaluated by a group of peers who are invited by the NCATE. If the written materials are approved, the NCATE then sends a group of experts for a site-visit. The teacher education program can be accredited only after meeting all of the NCATE's

standards (Douglas, 1987).

The National Association for Sport and Physical Education (NASPE), in the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD), is the governing body that sponsors in the Physical Education NCATE Guidelines. The Guidelines for undergraduate programs in physical education were approved by the NCATE in March 1985, with approved revisions in January 1991. Further revisions are due in the summer of 1996 (NASPE, 1996).

In the NCATE/NASPE Guidelines, professional physical education is of three interrelated elements, which are the physical education teaching specialty, physical education as a profession, and the pedagogical elements of physical education. Under these three components 25 guidelines are listed. The areas that have guidelines are found in Appendix G. In the Guidelines, suggestions were also given regarding specific areas such as prerequisites, content knowledge and application, semester hours needed, laboratory work, equipment, and faculty qualifications.

Lawson (1990, 1991) indicated that the guidelines in fact provided a national model for the professional preparation of physical education teachers, even though they stated that they only attempted to provide a framework for programs. Uhler (1990) indicated that colleges were

gradually losing autonomy in curriculum design because they were pressed between the demands of the professional accreditation agencies and state regulations. Other frequently quoted criticisms include the cumbersome process of accreditation and whether accreditation can really determine the quality of the teacher education program (Oliver, 1988).

China

China does not have a system of accreditation. Academic standards for professional physical education are determined by the SEdC. The Curriculum Guidelines for Undergraduate Physical Education Teacher Education were approved by the SEdC in 1992. According to the Guidelines, the primary mission of the professional preparation of physical education teachers at the undergraduate level is to train senior high school physical education teachers who are capable of teaching physical education and doing some basic research. The teaching goals are to systematically master basic theories in pedagogy, psychology, human body science, and social science; and to learn at a basic level the theories of the foundation and principles of physical education, sports skills, and the teaching skills. After graduation, the individual has the capability to teach physical education, direct after-school physical exercises,

coach school sport teams, and organize intramural activities (the State Physical Education and Sport Commission, 1989).

The Curriculum Guidelines of Undergraduate Physical Education Teacher education were approved by the State Education Commission in 1992. Pedagogical science, human body science, and pedagogical knowledge in physical education were recognized as the three major components. The eleven core courses listed were human anatomy, foundations and principles of physical education, human physiology, sports psychology, exercises for health and rehabilitation, school physical education, tests and measurement for physical education and sport, gymnastics, track and field, team sports (basketball, volleyball, and soccer), and Chinese martial arts (the State Education Commission, 1993).

The Guidelines specified the minimum total class hours and semester credits needed in each of the three components. Additionally, the teaching goal, content knowledge and class hour distribution, laboratory work and other field experience, course planning and organization, grading, faculty qualification, and resources (facility, equipment and literature) for each of the core courses were stipulated in detail. The only flexibility that is allowed is that the instructor may change the teaching order of the course

content and make minor adjustments in the emphasis. One textbook is selected for national distribution.

Summary

Education in the United States is operated by the state and local government, as well as private and religious sectors. There is no national curriculum. In China, the education system is highly centralized. The governing body is the State (national) Education Commission (SEdC). The State (national) Physical Education and Sport Commission (SPESC) is the authoritative body that governs sport affairs in China. However, the SPESC cooperates with the SEdC in training physical education teachers.

The university department of physical education in the United States tends to be separated from the department of athletics if the enrollment in this university is over 10,000 students. However, basic instruction is one of the functions in the department of physical education. In China, the department of physical education is completely separated from the basic instruction program, which is called the department of public physical education.

Professional preparation of physical education teachers in the United States is usually conducted at the undergraduate level. In China, professional preparation is conducted at the three levels, the four-year undergraduate

level, two or three-year associate degree, and at the two or three-year senior secondary normal school level. These programs provide senior high, junior high, and elementary physical education teachers, respectively.

The supply of physical education teachers in the United States has been greater than the demand since the 1960s. In China, it has been estimated that 300,000 more physical education teachers will be needed by the year 2000.

Specific requirements for admissions to professional physical education, such as physical fitness tests and sport skill tests, appears to be unpopular in the United States. However, professionals are concerned about the fitness of physical educators because they found that physical education teachers in elementary and secondary schools had below average levels of physical fitness. Entry into the professional physical education program in China is very competitive because of limited space. The SEdC has established nationwide standards for the recruitment of physical education majors. These standards include the requirements of physical fitness and sport performance.

In the United States, recent discussion of the professional preparation curriculum includes different curriculum models, the balancing of the pedagogical requirements and sport skill courses. There is also

discussion as to the proper number of liberal arts courses and science courses to be included in the curriculum. In China, the professional preparation curriculum is very similar everywhere with the emphasis on sport skill learning. This traditional pattern is questioned by professionals who are seeking a new curriculum that can best fit the changing society.

The student teaching experience is emphasized in the United States. One semester of full-time student teaching is common. However, effective administration and supervision of the student teacher experience has been a problem. In China, the criticism is focused on the short student teaching period of six to eight weeks. There is ample supervision of student teaching in China.

In the United States, teacher certification and accreditation of the teacher education program, including professional physical education, is a unique feature that reflects the endeavor of quality control of teacher education. In China, such a technique has not been established.

Chapter 3

Methods and Procedures

This study was designed to examine the characteristics of training physical education teachers at the undergraduate level in the United States and China. It attempted to answer questions as follows: what were the characteristics of college general admissions, admissions to teacher education, and specific requirements for admissions to physical education teacher education in the two nations, respectively; what were the contents of the curricula taught in general education, major studies, and pedagogical requirements and their features, respectively; what was the structure of the curricula when looking at number of courses required and class hours required among general education, major studies, and pedagogical requirements and their characteristics, respectively.

Subjects (Institutions)

Seven United States programs of physical education teacher education were selected by way of consulting more than ten scholars and college senior professors in physical education. Consulting was also conducted with the governing body of the profession, the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD).

Scholars were chosen based upon their publications in the area of curriculum in the professional journals 'Quest'

and 'Journal of Physical Education, Recreation, and Dance', and also books published in the area of curriculum in the field of physical education. Senior professors consulted had been teaching professional physical education for more than 15 years and had each been on a national reviewing team for other colleges. The author also requested that AAHPERD send any previous evaluations conducted to rank the programs of physical education teacher education. Since AAHPERD had not done such evaluations and they just recommended a list of 10 institutions, their opinion was counted as one ballot.

Consultation was done by way of written requests, personal interviews, and telephone interviews. Individuals were asked to recommend 10 institutions that might serve as good representatives for the United States. Ten individuals, these including AAHPERD, replied and a total of 46 institutions were listed. Of these, eight institutions were mentioned three times or more. Although Ohio State University was recommended by all individuals, it had begun to train teachers at the graduate level only since 1995. This school was not selected as one of the subjects because it did not match this study, which was limited to the undergraduate level. The other seven institutions which were mentioned three times or more were selected as subjects. These schools were: (1) Arizona State University

(ASU); (2) Pennsylvania State University (PSU) (Currently accredited by NCATE/NASPE); (3) University of Illinois at Chicago (UIC); (4) University of North Carolina at Greensboro (UNCG); (5) University of Maryland at College Park (UMCP); (6) University of South Carolina at Columbia (USCC); (7) University of South Florida at Tampa (USFT) (Currently accredited by the NCATE/NASPE). All schools are accredited by NCATE but the additional NASPE accreditation has been earned by PSU and USFT.

A similar procedure was used to choose the seven Chinese institutions. The author had taught in a university physical education department in China for nine years, and during that time attended the national conference of physical education annually. As a result, the author was familiar with the leading Chinese scholars through their professional activities and publications in professional physical education. The author consulted more than ten of these individuals based upon their professional activities and publications, and asked them to recommend institutions that were appropriate to be used as subjects. It was suggested that two normal universities administered by the State Education Commission be used, along with two physical education and sport universities administered by the State Physical Education and Sport Commission and two or more

normal universities administered by provincial education commissions. The seven Chinese universities mentioned six times or more in these categories were selected as subjects. These universities were: (1) Beijing Normal University (BNU) (administered directly under the State Education Commission); (2) Beijing Physical Education and Sport University (BPESU) (directly administered under the State Physical Education and Sport Commission); (3) East China Normal University (ECNU) (administered directly under the SEdC); (4) Hang Zhou University (HZU) (administered by Zhejiang Province Education Commission); (5) Shanghai Physical Education and Sport Institute (SPESI) (directly administered under the SPESC); (6) Shanghai Normal University (SNU) (administered by Shanghai Education Commission); (7) South China Normal University (SCNU) (administered by Guandong Province Education Commission).

Collection of Data

In order to collect the data, various methods were used.

A letter was sent to each selected institution requesting department documents used in planning the physical education major course of study, the department curriculum and/or teaching plans, and the latest undergraduate catalogs (Appendix D).

A questionnaire was also designed and sent to these departments requesting additional information regarding admission to the professional physical education program, student teaching, graduation requirements, accreditation status, and teacher certification/licensure (Appendix E). The questionnaire has not been used as a primary source of data because less than half of them were returned.

Telephone interviews were conducted when information was not described in catalogues and departmental documents. This information mostly concerned the administration of student teaching.

Additional documents were requested and reviewed. These documents included: Physical Education NCATE/NASPE Guidelines (AAHPERD, 1992), Digest of Education Statistics 1994 (U.S. Department of Education, 1995), Guidelines and Standards of Eleven Core Courses for Undergraduate Physical Education (State Education Commission-China, 1993), and Application Manual: Undergraduate Physical Education (State Physical Education and Sport Commission China, 1988).

Comparative Criterion

Each nation's selected program had a different way of categorizing curriculum and calculating course credits. Furthermore, this difference was observed at the level of the institutions, especially when counting the activity

and/or sport performance coursework. Therefore, in order to facilitate comparisons, this study divided the curriculum into the following areas: general education, major requirements, pedagogical studies, and other requirements that generally included a second major or minor. Included in this were also free electives, courses that were difficult to sort into any of the above three categories. Instead of credit, class hours was used as a parameter to analyze and compare the structure of curricula for the two nations.

Analysis and Comparison

For each area specified above, the number of courses and the percentage it represented, the number of class hours and the percentage they represented were determined and used for comparison. Descriptive statistics such as the means and the standard deviations were used. T-tests were also calculated to compare the differences between these means at the .05 level of significance.

Chapter 4

Results and Discussion

Requirements for General Admissions and Teacher Education

Autonomy is one of the remarkable characteristics practiced in United States colleges and universities. Requirements for admission and graduation vary from university to university depending upon the mission of the institution, resources, and prestige. Furthermore, in a given university these criteria may be different among colleges or schools, and programs. Every university, however, has set minimum admission standards. The general requirements for admissions are as follows: First, the applicants are required to be a graduate from an accredited high school, or achieve an equivalent level such as the General Education Development (GED). Applicants are also required to complete required high school courses (called college preparatory courses), which may cover the areas of English, mathematics, natural science, social sciences, arts, foreign language, and history. The number of years or units spent on certain courses is assessed. Typically, 14 to 16 units are required. A unit is defined as two class periods per week for the entire academic year.

Ohio State University, as an example, requires applicants to complete 15 units of the college preparatory high school curriculum including four units of English,

three units of mathematics, two units of social science, two units of natural science, two units of foreign language, one unit in visual and performing arts, plus one elective from above.

Second, the ACT or SAT score is also a valuable part of admission consideration, although this score is not used as the deciding factor. A combination of the ACT or SAT score with the applicant's high school GPA or rank is considered. A low ACT or SAT score may be offset by a high GPA or by ranking in the top academic percent of the class. The scores are also used interchangeably, a low GPA or rank could be offset by a higher ACT or SAT score. When comparing the standard college entrance tests with high school academic records, the latter appears to take precedence in admission consideration. Minimum scores on the ACT or SAT examinations are usually in the 20-24 range on the ACT or 900 to 1,000 on the SAT, and the average high school grades expected is a "C" or overall GPA of 2.50.

Applicants who do not meet, but are close to, the criteria may be accepted with the status of conditional admission. They must take the standardized tests again or satisfactorily complete certain developmental courses offered by their university, and remove deficiencies before being permitted into the major course of study.

Being accepted into a university is no guarantee that you will be admitted into teacher education. In each university, the teacher education program sets its own criteria for screening the applicant's intellectual, leadership, and communication competencies. First of all, the applicant must apply and may be required to submit a written statement of personal goals. Application is usually made at the end of the sophomore year after completion of the general education and pre-professional courses. A cumulative GPA of 2.50 or better is required before entrance into teacher education. Applicants may also be required to make satisfactory scores on the Pre-Professional Skill Tests (PPST) or other examinations developed or approved by the state in which they seek to be licensed to teach. Two or three favorable references or recommendations from faculty in the major department are common pre-requisites. Other requirements for admission may include a certain grade level in written and oral English courses, evidence of physical health for the teaching role such as an effective voice and an adequate level of speech and hearing.

In China, a quite different method is practiced in selective admissions for professional preparation of teachers. There are four requirements for admission into

the Chinese system of higher education for all students:

(1) Graduation from high school or an equivalent level;
(2) Evidence of sound physical health (physical examination is required); (3) Single marital status; (4) Twenty-two years of age or younger. Additionally, all applicants to teacher education must have a height of at least 170 cm (5'7") for men, and 160 cm (5'3") for women. Finally, the physical education student's unaided visual level must be at the 0.5 level (20/20) for each eye.

Once the applicant is admitted by a university, the student usually is required to live on campus with the government offering free lodging. The student is also expected to concentrate on the course of study. Thus, early marriages are discouraged. A student who does not meet the height or vision requirements is considered deficient for teaching physical education because this individual is not considered an effective role model.

After successfully completing the requirements for admission at this stage, the prospective physical education teacher must complete a series of physical fitness tests as follows:

Group 1: 100 meter dash;

Group 2: standing long jump, standing double long jump, standing triple long jump;

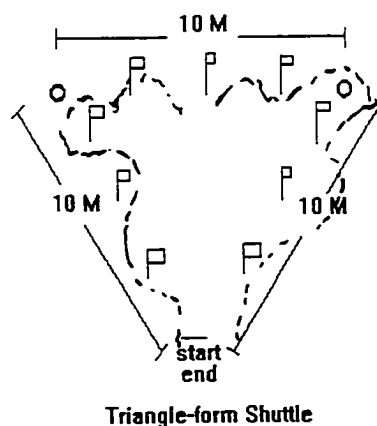
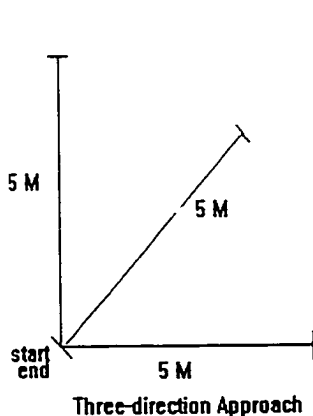
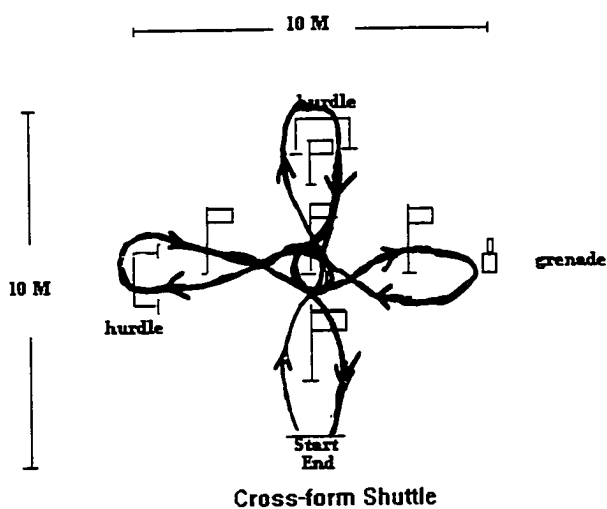
Group 3: standing shot-put, standing back shot-put,
jerk (weight-lifting);

Group 4: cross-form shuttle, triangle-form shuttle,
three direction approach (see Figure 6);

Group 5: 800 meter.

Figure 6

Physical Fitness Test - Group 4



Every applicant is tested in one item from each group. This item is decided by the specific university. These tests measure competencies in speed, strength, explosion, agility, and endurance. Sixty points are assigned to the physical fitness tests.

An individual may also elect to take a skill test on a particular sport. The applicant may select one of the six main sports in China, which are: Chinese martial arts, basketball, gymnastics, soccer, track and field, and volleyball; or the individual is permitted to select another sport such as badminton, baseball, fencing, softball, table tennis, tennis, weight lifting, or wrestling with the request being approved in advance. Forty points are assigned to the sport skill tests. For example the scoring in the volleyball test includes height-reach jump (10 points), three-meter approach (5 points), service (5 points), dig (5 points), set (5 points), spike (5 points), and game performance (5 points).

Both the physical fitness tests and the sport skill tests are standardized across the country and an individual must earn at least 60 points from a combination of the two tests to meet the minimum requirement of physical fitness and sport skill for admission consideration. In recent years it has been found that some of the normal universities

have omitted the sport skill test and have used the physical fitness tests as the sole criterion in this area.

The third phase of the admissions procedure in China uses the national standardized academic tests. These tests are given once a year in the middle of the summer and an applicant for physical education is required to take the series tests in Chinese, chemistry, mathematics, physics, and politics. The minimum required admission score which is called "baseline scores for college admissions", varies from province to province, and university to university, and is based upon space availability and number of applicants. The education commission of the province sets these scores, and the physical education applicant must earn at least 60 percent of the baseline score.

The national government sets the recruitment plan each year. This plan is based upon university resources and the demand for teachers at that time and in the future. The recruiting tasks are then assigned to each university.

The entire process of recruitment by each university is closely supervised by the education commission of the province. Generally, professional preparation programs for physical education teachers recruit freshmen with an average of 75 to 80 points in the physical fitness and sport skill tests, and an average of 75 to 80 percent of the baseline

scores in the academic tests.

Requirements for Graduation and Teacher Certification

In the United States, prospective teachers are awarded the bachelor degree of science or art in physical education after completing the curriculum of 120 to 155 semester credits in good standing. Academic standards for graduation vary among teacher education programs, but teacher certification typically includes: (1) completion of all courses with a minimum GPA of 2.50; (2) a grade "C" or better, or a minimum grade of 2.00 in each major course; (3) successfully completing the directed teaching experience; (4) Achieving the minimum state required scores in each portion of the National Teacher Examination (NTE) or other state approved tests for teacher certification. It was found that some states also require prospective teachers to take a specific teaching knowledge examination. Other requirements for certification may be U.S. citizenship; a minimum percentage of the total credits taken from the university of graduation; completion of all coursework and graduation within a stipulated number of years (e.g. seven or eight years); and a Federal Bureau of Investigation (FBI) check for prior felony convictions.

These are the general procedures for teacher education no matter if the department of physical education is placed

within the college of education or the college of health professions. Specific requirements for prospective physical education teachers, such as physical fitness tests, physical examinations, health-related tests, and sport skill tests, are not popular either for admission or for graduation.

The physical education teacher education program in China is comprised of a curriculum with 2,800 to 4,300 class hours. Normally, the prospective physical education teacher who successfully completes all the courses, the undergraduate thesis, and student teaching within four years, will be honored with a diploma and a bachelor's degree in education. After the degree is granted, no further specific examinations or certifications are necessary for an individual to teach.

The Curriculum of Professional Physical Education

I. General Studies

The content of general studies in America is quite broad. For example at Arizona State University, general studies include five core areas as follows: (1) literacy and critical inquiry; (2) numeracy; (3) humanities and fine arts; (4) social and behavioral sciences; and (5) natural science. There are also three awareness areas, which are cultural diversity in the United States; global awareness; and historical awareness.

The general studies area totals approximately 45 credits and is made up of courses from almost all academic fields. Students are required to select a prescribed number of credits or courses from each area. Furthermore, each area may contain more than a dozen different courses from different academic departments. Professional physical education students may have some restriction in the selection of courses. Specific courses in the general studies program are suggested to professional physical education majors according to what seems best for the profession. The general studies area comprises about one third of the total degree program.

General studies in China typically include Chinese modern history, law studies, politics and economics, foreign language, computer, philosophy, ethic, and military knowledge. Some universities may add other courses according to the needs of their students. Some of these courses are spoken standard Chinese, Chinese reading, Chinese composition, and library research skills. The number of courses offered in the general studies area ranges from seven to ten, which is equivalent to 34 to 54 credits. Foreign language in most schools used up to 16 credits of the total.

II. Major Requirements

In the United States, the physical education major requirements are divided into two parts. The first part is the core requirements, which are a group of courses that every major in the department must complete. This area usually contains the scientific base courses as well as the other courses that the faculty have decided that a student must take in order to be well rounded. The second area is the professional physical education requirements, which are composed of courses in a variety of activities and sport performance, pedagogical physical education, field experience, and health education.

While looking through the course listings, the author determined that each program was specific regarding the total number of required courses, course titles and their content. However, even though there are differences, the curriculum can be generalized into the following five areas:

- 1) physical education as a profession: typically one course covers this area. The course title may vary from the "Foundations of Physical Education", "Introduction to Career in Exercise and Sport Science", "Introduction to the Kinesiology Profession", to the "Orientation and Principles of Health and Physical Education".

- 2) scientific bases for physical education: this area

contains anatomy, biomechanics or kinesiology, physiology and exercise physiology, and the nutritional aspects of sport courses.

3) the specialization areas of physical education: history of physical education and sport, motor learning and development, philosophical and social aspects of physical education and sport, and the psychological aspects in physical education and sport are usually found in this area.

4) pedagogical physical education: physical education in elementary school, physical education in secondary school, methods of teaching physical education, curriculum in physical education, organization and administration of physical education, seminar of teaching physical education, practicum or field experience in teaching physical education, tests and measurements in physical education and sport, adapted physical education, and various activity and sport performance with the teaching techniques. The percentage of activity coursework is a very small portion of the program. However, within approximately eight courses, physical education students may engage in many forms of physical activities such as fitness, gymnastics, aquatics, rhythmic/dance, track and field, outdoor activities, games for children, individual, dual and team sports, and racquet sports.

5) other: a methods of coaching course; and one or more courses in health education, such as first aid, personal health, school health, sex education and drug education, are required. Physical education majors may also be required to select three to nine semester hours of electives or to select a second teaching field or minor.

In China, the physical education major courses can be divided into two parts, required and elective. The required courses are quite similar for all universities. They are Anatomy, Physiology and Exercise Physiology, School Physical Education, Exercise for Health and Rehabilitation, Psychology in Physical Education and Sport, Foundations of Physical Education, History of Physical Education and Sport, Test and Measurement in Physical Education, Sport Biochemistry, Statistics in Physical Education and Sport, and Research Methods and the Undergraduate Thesis.

Other courses such as administration of physical education and sport; principles of sport training; sports biomechanics; physical education content and instruction for the secondary school; and drawing (art) skills applied in teaching physical education may be listed as required or elective courses.

The activity courses and teaching technique classes that are required by all the selected universities are track

and field, gymnastics, basketball, volleyball, soccer, Chinese martial arts, and swimming.

Individual or dual sports, rhythm/dance, and games for school children are listed as required courses for some schools. Weight-lifting, artistic gymnastics (for women), fitness activities, and basic gymnastics may be required or elective.

Every physical education student is required to be specialized in one of the six sports. The sports are track and field, gymnastics, soccer, basketball, volleyball, or Chinese martial arts. Students may be allowed to select another sport depending upon the availability of resources and also faculty interest and specialization. Anywhere from 270 to 350 class hours are devoted to this sport specialty in the normal universities while 900 to 1,000 class hours are used to focus on the sport specialty at the physical education and sport institutes.

The Shanghai Physical Education and Sport Institute also requires physical education majors to select a second sport specialty. This could take up to 200 more class hours. East China Normal University requires prospective physical education teachers to select one six-credit advanced academic course from: exercise physiology, sport biochemistry, sport psychology, sport biomechanics,

theoretical study in physical education, and exercise for health and rehabilitation.

All the universities also offer free electives. These range from a dozen to over 40 courses which may be in academic studies, lab experimental techniques, sport and recreational games, coaching, officiating, or sport business. A complete list of these courses is found in Appendix C.

3. Pedagogical Requirements

The number of pedagogical courses required in America is from four to ten, most likely four to six. The credits ranged from 18 to 32, usually 21 to 27 which includes 12 credits for student teaching. The curricula in all the selected universities consisted of one or two courses in the social/historical/philosophical aspects of education or titled Foundations of Education, one course in the psychological aspects in education, and an assignment of one semester of full-time directed teaching. Most of the universities also included one or two courses from the assessment and evaluation in education, methods and techniques of teaching, computer education, and reading education. Other courses such as theory and practice of education, classroom management, and school curriculum may also be listed in the pedagogical requirements.

Student teaching is the culminating stage of the pedagogical requirements. The responsibility lies with the student to apply for the student teaching program. Every teacher education program has set qualifications for application. These include having formal written application at the office of teacher education at least one semester in advance of formal admission to the program of student teaching. The student must also be classified as a senior and must have completed all, or almost all, education courses and teaching specialty courses with no grade lower than a 'C' and a minimum GPA of 2.50. Furthermore the student must be recommended by the major department, and/or by both the education advisor and the major advisor, and be favorably evaluated in the previously required field experiences. Some universities may also require the student to supply a negative tuberculin test, submit to a criminal background check, and pass the state required scores on the NTE Core Battery Tests.

All sites are selected by the office of teacher education and students who pursue a K-12 certification are required to spend a half semester in a secondary school and the other half in an elementary school. If students live away from the school, transportation and lodging are the individual's responsibility. The student teacher's

assignment usually includes four to five physical education classes a day with after school sport activities and the preparation of lesson plans and teaching documents.

The entire process of student teaching is monitored directly by the school's cooperating teacher. The university faculty who represent the teacher education program or the physical education major program visit the site several times during the semester. During the student teaching experience, some universities, and departments of HPER required the student teacher to return to the university once a week to attend a student teaching seminar. The advantages of these events not only strengthens the student teaching experience but provides strong support for the student teachers. The final grade of the student teacher is determined by the cooperating teacher. Grades of pass/fail, or satisfactory/unsatisfactory are used.

Student teaching in China is undertaken in the seventh or eighth semester and six credits is given for this assignment. The length of time spent in student teaching is between six to eight weeks. However, some individual schools are now extending the time to one full semester. The department of physical education is the main body in charge of the physical education student teaching experience, including site selection and supervision. Some

university physical education departments have established permanent bases in certain secondary schools and send their students only to those schools where they have such relationships. The universities provide the secondary school teachers with convenient ways to continue their education and to receive access to new information about physical education and sport. These universities also give priority consideration to the recruitment of students who graduate from these secondary schools.

All senior professional physical education students are placed in several of these secondary schools. Typically, each secondary school has had 10 to 15 student teachers led by one faculty from the department of physical education at the university. This group is called the 'Team of Student Teaching'. The team is required to live on the site, if possible. Student teachers are not permitted to leave the school during the work day. If the site is close to the university, they may commute, but must stay at the school between 7:30 a.m. and 5:00 p.m. Some universities have given student teachers a subsidy for transportation and food.

The teaching load for physical education student teachers is somewhere between four to eight teaching class hours a week. They are also required to participate in

other activities such as leading morning exercises and after-school activities, organizing the school annual sports meeting (sports day), training the school sport teams, planning the school physical education and sport programs, intern as a class director, and preparing teaching and coaching lessons plans and documents.

The areas of evaluation for the student teaching experience are the student's final performance in the demonstration class, routine teaching of the physical education classes, teaching documents and lesson plans, and extra curricular activities. The final grade is determined by the cooperating teacher, who uses a checklist prepared by the university physical education department. During the final phase of the student teacher's demonstration, the entire body, which is comprised of all the other cooperating teachers, the university faculty team head, and of the other student teachers, is present. These individuals give their comments and critiques, which are also used by the cooperating teacher in the final evaluation. Letters of 'excellent', 'good', 'average', 'pass', and 'fail' are utilized in grading.

In addition to the directed teaching assignment, two more courses, the pedagogy and psychology of education, are required. These two courses involve five to seven semester

credits or 72 to 108 class hours.

4. The Structure of the Curricula

This section attempts to further examine the similarities and differences regarding the composition of the professional physical education curricula between the two countries. The data presented here include:

(a) The number of courses distributed by general education, major requirements, and pedagogical studies; their percentages, and significant tests between the United States and China;

(b) The number of class hours and their percentages distributed by general education, major requirements, and pedagogical studies. Tests of significance for these between the two nations were also included in this area;

(c) The number of courses and class hours distributed by academic and activity courses in the major requirements. Also included are the distribution percentages of the academic activity courses in the curriculum, and tests of significance for these between the two nations.

A. Course Distribution by Number

In the United States, the number of general education courses ranges from 12 to 15 with an average of 13. The major course requirements ranges from 20 to 34 with an average of 27, and educational courses ranges from three to

10 with an average of five. The total number of courses needed for graduation ranges from 37 to 61 with an average of 47 (Table-1).

In China, the number of courses in the three categories ranges from seven to 11 with an average of nine in general education; a range from 28 to 36 with an average of 31 in the major area; between two and three courses in professional education with five schools having three and two schools having two courses. The total number of courses needed for graduation ranges from 38 to 48 with an average of 43 (Table-2). It must be noted that there is no 'other' category in China.

The number of courses in the three categories, and the means of these were also converted to percentages and is displayed in Tables 1 and 2. A comparison of these percentages is further displayed in Figure 7. The average percentages of courses were 28 percent, 58 percent, and 11 percent for general studies, major requirements, and professional education respectively in the United States; while in China they were 22 percent, 72 percent, and 6 percent respectively for the above areas.

Table-1

Distribution of Courses by Number and Percentage (USA)

Category	General Study		Major Course		Edu. Course		Other		Total No.
	No.	%	No.	%	No.	%	No.	%	
ASU	15	33	20	45	10	22	-	-	45
PSU	12	19	40	66	7	12	1-2	3	60-61
UIC	13	30	24	56	3	7	3	7	43
UMCP	13	29	28	62	4	9	-	-	45
UNCG	12	25	25	53	4	9	6	13	47
USCC	14-15	27	34	64	5	9	-	-	53-54
USFT	12	32	20	54	5	14	-	-	37
Mean	13	28	27	58	5	11	2	3	47
SD	1.2		7.4		2.4		-	-	7.6

Table-2

Distribution of Courses by Number and Percentage (China)

Category	General Study		Major Course		Edu. Course		Total No.
	No.	%	No.	%	No.	%	
BNU	7	18	28	74	3	8	35
BPESU	9	23	29	72	2	5	40
ECNU	10	21	36	78	2	1	48
HZU	11	24	31	69	3	7	45
SPESI	10	22	32	71	3	7	45
SNU	10	24	29	69	3	7	42
SCNU	8	19	32	74	3	7	43
Mean	9	22	31	72	3	6	43
SD	1.4		2.7		0.5		3.4

In comparing the two samples, it was found that there are no significant differences existing in the total number of courses required for graduation and in the major requirements. However, in general education and pedagogical

studies, there are significant differences between the two countries. The United States requires more coursework in these two areas (Table-3).

Figure-7

Comparison of Courses by Percentage

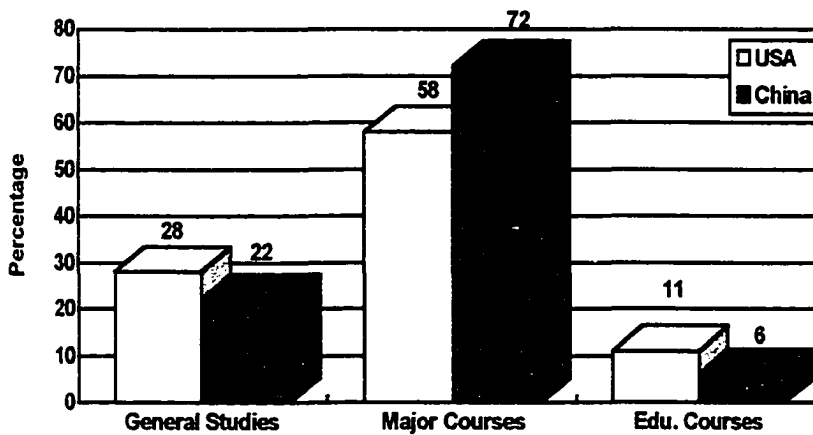


Table-3

Comparison of the Average Number of Courses

Category	General Study	Major Course	Edu. Course	Total
USA n = 7	Mean = 13 SD = 1.2	Mean = 27 SD = 7.4	Mean = 5 SD = 2.4	Mean = 47 SD = 7.6
China n = 7	Mean = 9 SD = 1.34	Mean = 31 SD = 2.7	Mean = 3 SD = 0.5	Mean = 43 SD = 3.4
t-value	5.391*	1.244	2.974*	1.364

t .025 = 2.179 with 12 degrees of freedom

* significant difference

B. Course Distribution by Class Hour

Comparison of the two programs by class hours was found to be the most efficient method. In the selected United States universities, general education requirements range from 525 to 675 class hours with an average of 598, while the major requirements range from 855 to 1,500 with an average of 1,116 class hours. Additionally, the class hours in educational studies range from 90 to 300 with an average of 182, and the total class hours required for graduation range from 1,620 to 2,340 with an average of 1,962 (Table-4).

In China, the distribution of class hours in general studies ranges from 595 to 960 with an average of 745, in the major requirements it ranges from 1,921 to 3,270 with an average of 2570 class hours, and in the education area it ranges from 34 to 119 with an average of 91. The total class hours required for graduation ranges from 2,856 to 4,302 with an average of 3,406 (Table-5). Tables 4 and 5 of class hours in percentages are shown in Figure-8. In the United States, general education, major requirements, and pedagogical studies represent 31, 57 and 9 percent, respectively while in China, these numbers are 22, 75, and 3 percent.

Table-4

Distribution of Courses by Class Hours & Percentages (USA)

Category	General Study		Major Course		Edu. Course		Other		Total
	cl. hr.	%	cl. r.	%	cl. hr.	%	cl. hr.	%	cl. hr.
ASU	675	37	855	47	300	16	-	-	1830
PSU	525	22	1500	64	255	11	60	3	2340
UIC	660	35	1020	53	90	5	135	7	1905
UMCP	585	30	1215	61	180	9	-	-	1980
UNCG	525	28	990	52	120	6	270	14	1905
USCC	675	31	1330	62	150	7	-	-	2155
USFT	540	33	900	56	180	11	-	-	1620
Mean	598	31	1116	57	182	9	66	3	1962
SD	71		239		74		-	-	231

Note: Student teaching is not included in Educational Coursework.

Table-5

Distribution of Courses by Class Hours & Percentages (China)

Category	General Study		Major Course		Edu. Course		Total
	cl. hr.	%	cl. hr.	%	cl. hr.	%	cl. hr.
BNU	684	21	2430	76	108	3	3222
BPESU	960	22	3270	76	72	2	4302
ECNU	595	21	2280	78	34	1	2909
HZU	816	29	1921	67	119	4	2856
SPESI	905	21	3188	76	108	3	4201
SNU	656	22	2242	74	108	4	3006
SCNU	596	18	2660	79	90	3	3346
Mean	745	22	2570	75	91	3	3406
SD	149		502		30		603

In comparing the United States with China, it was found that there are significant differences in all the areas

regarding course distribution by class hours. China requires many more class hours in general education, in the major course of study, and for graduation. The United States requires many more class hours for pedagogical studies (Table-6).

Figure-8

Comparison of Class Hours by Percentages

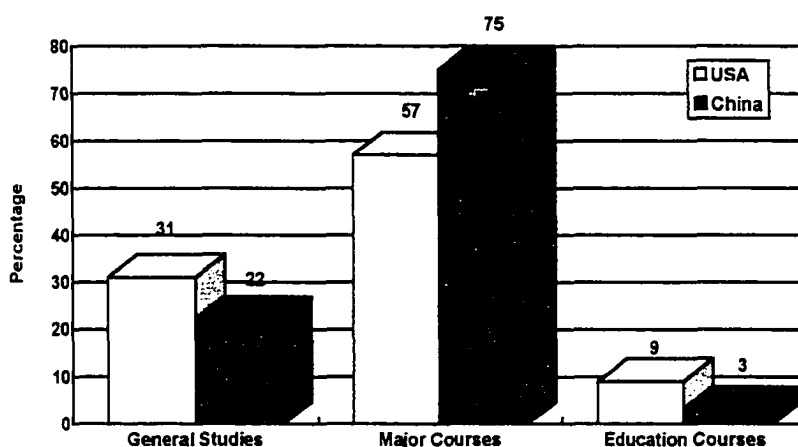


Table-6

Comparison of the Average Class Hours

Category	General Study	Major Course	Edu. Course	Total
USA n = 7	Mean = 598 SD = 70.58	Mean = 1116 SD = 239.07	Mean = 182 SD = 73.7	Mean = 1962 SD = 231.42
China n = 7	Mean = 745 SD = 149.0	Mean = 2570 SD = 502.08	Mean = 91 SD = 29.61	Mean = 3406 SD = 603.02
t-value	2.3543*	6.9198*	3.0263*	5.9144*

t .025 = 2.179 with 12 degrees of freedom

* significant at the .05 level

C. Distribution of the Major Academic and Activity Courses

In the United States, the number of academic courses needed to fulfill the major requirements ranges from 12 to 26 with an average of 19, while the number of activity courses ranges from one to 14 with an average of eight. Additionally, these courses average to around 70 percent and 30 percent of the 27 total major courses respectively, and 41 percent and 17 percent of the total number of courses needed for the degree (Table-7).

In China, the number of academic courses ranges from 16 to 24 with an average of 19, while the activity courses range from 11 to 14 with an average of 12. Furthermore, these courses average 63 percent and 37 percent of the 31 total major courses respectively. The 19 and 12 activity courses represent 45 percent and 27 percent of the total coursework required for graduation (Table-8).

As mentioned earlier, class hours are the most efficient means of comparison. In the seven United States universities, the class hours assigned to academic and activity coursework for major requirements range from 570 to 1,080 with an average of 846 in the academic area, and 30 to 420 with an average of 270 class hours in the activity area. The 846 class hours are equivalent to 76 percent of the major coursework, and 43 percent of the total hours required

for graduation. Additionally, the activity classes of 270 hours accounted for 24 and 14 percent respectively (Table-9).

Table-7

**Distribution of the Major Academic and Activity Courses
by Number and Percentage (USA)**

Category	Academic Courses	Percent		Activity Courses	Percent	
		in Major	of Total		in Major	of Total
ASU	12	60	27	8	40	18
PSU	26	65	43	14	35	23
UIC	18	75	42	6	25	14
UMCP	19	68	42	9	32	20
UNCG	17	68	36	8	32	17
USCC	23	68	43	11	32	21
USFT	19	95	51	1	5	3
Mean	19	70	41	8	30	17
SD	4			4		

Table-8

**Distribution of the Major Academic and Activity Courses
by Number and Percentage (China)**

Category	Academic Courses	Percent		Activity Courses	Percent	
		in Major	of Total		in Major	of Total
BNU	18	64	47	10	36	26
BPESU	19	66	48	10	34	25
ECNU	24	67	50	12	33	25
HZU	20	65	44	11	35	24
SPESI	18	56	40	14	44	31
SNU	16	55	38	13	45	31
SCNU	21	66	49	11	34	26
Mean	19	63	45	12	37	27
SD	3			2		

Table-9

Distribution of the Major Academic and Activity Courses
by Class Hour and Percentage (USA)

Category	Academic	Percent		Activity	Percent	
	Class Hour	in Major	of Total	Class Hour	in Major	of Total
ASU	570	67	31	285	33	16
PSU	1080	72	46	420	28	18
UIC	765	75	40	255	25	13
UMCP	885	73	45	330	27	17
UNCG	750	76	39	240	24	13
USCC	1000	75	46	330	25	15
USFT	870	97	54	30	3	2
Mean	846	76	43	270	24	14
SD	170			22		

Table-10

Distribution of the Major Academic and Activity Courses
by Class Hour and Percentage (China)

Category	Academic	Percent		Activity	Percent	
	Class Hour	in Major	in PETE	Class Hour	in Major	in PETE
BNU	1202	49	37	1228	51	38
BPESU	1293	40	30	1977	60	46
ECNU	1258	55	43	1022	45	35
HZU	1037	54	36	884	46	31
SPESI	905	28	22	2283	72	54
SNU	1108	49	37	1134	51	38
SCNU	1286	48	38	1374	52	41
Mean	1156	45	34	1415	55	42
SD	146			520		

In the seven Chinese universities, the class hours that are equivalent to the academic courses in the major area

range from 905 to 1,293 with an average of 1,156. For the activity courses, the class hours range from 884 to 2,283 with an average of 1,415. The academic average of 1,156 class hours are equivalent to 45 percent of the major coursework and 34 percent of the total classwork needed for graduation. The activity average of 1,415 class hours are equivalent to 55 percent of the major coursework and 42 percent of the total coursework (Table-10).

In the comparison of China and the United States, there are significant differences that exist in class hours for both the academic and activity areas. China requires many more class hours than the United States (Table-11).

Table-11

**Comparison of the Major Academic and Activity Courses
USA Versus China**

Category	Academic Course		Activity Course	
	Number	Class Hour	Number	Class Hour
USA n = 7	Mean = 19 SD = 4.4	Mean = 846 SD = 170	Mean = 8 SD = 1.5	Mean = 270 SD = 122
China n = 7	Mean = 19 SD = 2.6	Mean = 1156 SD = 146	Mean = 11.6 SD = 1.5	Mean = 1415 SD = 520
t-value	.1493	3.6652*	2.095	5.6725*

t .025 = 2.179 with 12 degrees of freedom

* significant at the .05 level

DISCUSSION

Requirements for Admission and Graduation

Higher education in America is accessible for most, if not all, individuals because the minimum requirements are not difficult to meet. Most high school graduates have the opportunity to further their education in college. This is related to the status of a highly developed educational system that has enough space and monetary support. The practice of the American mass educational philosophy also has some relationship to these results.

Teacher education is a large component in American higher education. Even though entrance to the professional education program is not as competitive as entrance to other professional majors like pre-pharmacy, pre-medicine, nursing, physical therapy, and law, the requirements for admission and graduation are usually higher than that for general admission and the degree requirements for the overall institution. Additionally, prospective teachers must usually take a teacher examination before entering the teaching field. The above practice shows that there are efforts toward quality control in the training of teachers.

College entrance in China is quite competitive due to limited resources and the high numbers of high school graduates each year. For these reasons entrance to

professional physical education is also quite competitive. China has a centralized educational system and it has created nationwide standards for recruitment of college physical education students. These standards, which include physical fitness, sport skill, and academic tests, ensure that each university can recruit the best applicants. Because of such strict screening and selective admissions, almost all the physical education students can successfully complete the program within the stipulated time. Upon graduation, the Chinese students are all placed in teaching jobs whereas this is not true in the United States.

Compared with the Chinese system, universities in the United States have more autonomy in directing recruitment and setting standards for graduation. As a result, the universities are more accessible, entry requirements are more flexible, and the pace of teacher education is not as intense. However, once accepted, the individual must maintain a prescribed academic level for retention purposes, and take teacher examinations in order to be certified for a teaching job. As mentioned earlier, there is no job guarantee after graduation, and the general impression is "easy come," but not "easy go".

The Curriculum of Physical Education Teacher Education

1. General Studies

The emphasis on general studies is a unique and admirable feature found in United States higher education institutions. The statement of the purpose of general education by the University of Maryland at College Park is a good explanation of this unique feature:

Participation in a democratic society requires more than the central instruction provided by one major field of study. In our world of rapid economic, social, and technological change, a strong and broadly-based education is essential.

General education helps students achieve the intellectual integration and awareness they need to meet challenges in their personal, social, political, and professional lives. General education courses introduce the great ideas and controversies in human thought and experience. These courses provide the breadth, perspective, and rigor that allow UMCP graduates to claim to be 'Educated people'.

Most Americans change their careers three times during their lifetime. A solid general education provides a strong foundation for the life-long learning that makes career-change goals attainable (UMCP 1994-95 Undergraduate Catalogue, p. 43).

General studies in China is not as broad-based. China emphasizes the study of a foreign language, and the development of the student's political beliefs and philosophical ideas. If China is relaxing its personal domination and isolation from the rest of the world it would do well to increase its courses in general studies.

2. Major Requirements

The general characteristics of the major course requirements in the United States are set out in five categories. In the first category it is determined that although course titles and their relevant composition vary, due to the impact of accreditation, the entire content of the programs is similar. This is a strong point in the American system as it affords consistency. Second, academic courses consume a large portion of the major studies. Again this affords the student a strong background in the sub-disciplines. Third, activity courses are less emphasized. Students may only develop very basic knowledge and skills since few activity semester hours are required. Along with a lessened emphasis on activity, skill is not a requirement for admission to the physical education program. The de-emphasis on activity has been a great Achilles' heel in the US program. The knowledge of motor development and learning is very pointed and at least five to six credits, or two courses, is provided. The programs have focused on knowledge instead of skill. Fourth, there has been emphasis on early practicum or field experience in the teaching of physical education. This is a positive as it affords the student the opportunity to observe professionals, and allows the student to determine if teaching is a correct future

direction for them. Last, adapted physical education and health knowledge along with one or two seminars of teaching physical education are routinely required. Again, this practice gives the students a broad base and allows them to practice their training.

The highlights of the major course requirements in China are first, the curriculum in each university is very similar. Again this is a positive as it affords similarities and the individual can be sent to any region and perform well. Second, activity and/or sport performance courses of study is highly emphasized. Every physical education student is required to select one sport as his or her sport specialty. This seems to be one of the strongest assets for China and a weakness for the United States. Thirdly, the writing of an undergraduate thesis is a necessary part towards the fulfillment of the graduation requirements. Again, this is a strong point for China as it requires the student to have a background in research.

3. Pedagogical requirements

The main characteristics of the pedagogical requirements in the United States can be covered in six points. First, every university has established minimum requirements that are higher than for general admission for entry into directed teaching. This is positive as it

ensures an increased level of preparation for teachers. Second, the teacher education program in the college of education is the main body in charge of student teaching. It appears that the department of HPER is not as closely connected with the student teacher as the office of teacher education. The most probable reason is that it is difficult to send professors to visit the scattered sites from time to time. This may be a disadvantage to the United States system because the individuals most knowledgeable in the various disciplines are the faculty of the discipline and not the education faculty. It would seem prudent to have the physical education faculty more involved in the student teaching experience. Third, it is the responsibility of the student, who must apply for the directed teaching in advance. This is positive as the student becomes more responsible for actions taken. Fourth, one semester full-time teaching is the most common practice observed. This is a positive characteristic as it affords the student adequate time in the field for practice. Fifth, the cooperating teacher is the most important person influencing the student teacher. This affords the student the expertise of the field practitioner. And last, more than four academic courses (or 12 semester hours) are included in the education block besides student teaching. This is a positive

characteristic because it helps to ensure that the student is well prepared before the student teaching experience.

The highlights of the pedagogical requirements in China are stated in four observations. The first observation is that the administration of the student teaching experience is the responsibility of the department of physical education at the university. This is a very positive characteristic since it allows the physical education professors to mold the students and affords them the ability to produce strong physical education teachers. Second, student teachers are very strictly monitored. Again, this is positive as the young teacher receives much needed direction. Third, the length of student teaching is between six to eight weeks. This characteristic is a negative. The student teaching experience requires much more time than eight weeks. Last, only two more academic courses are required. This characteristic is a negative with the student teaching experience being only eight weeks. With only two more academic courses following student teaching, the professor must try to provide too much information in the eight-week student teaching experience.

4. The Structure of the Curricula

A. General education:

There was a significant difference in regard to the

course number in general education. Although the United States required a significantly higher number of courses than China (Table-3), China was significantly higher than the United States when class hours were determined (Table-6). This may be caused by the fact that in China one semester averages about 17 weeks, while in the United States, one semester averages 15 weeks. The structure of general education was also very different in both countries. In the United States general education consisted of a broad based, less in-depth curriculum, whereas in China, the curriculum was more in-depth with emphasis on foreign language and politics.

B. Major requirements:

The class hours for major requirements in China were 2.3 times that of the class hours for the United States (Table-6). China spends many more class hours on the major requirements although this is not observed when the number of courses are taken into consideration (Table-3). When the variety of courses are observed it seems that in the United States universities there is more of a variety of sub-disciplines. When further examining the structure of the major coursework, it was found that when the class hours spent in the two areas of academic and activity were taken into consideration, China was significantly higher than the

United States. In the activity area, China invested over five times as many class hours as the United States (Table-11). The reasons for these differences are that China requires 70 to 179 class hours on each major sport and the requirement of a sport specialty further uses from 270 class hours up to 1,000 class hours. Finally, China's school semester is longer than the average United States semester.

C. Pedagogical Studies

There were significant differences between the two countries in the pedagogical requirements. The United States requires more courses and class hours than China in the education courses (Table-3, Table-6). Additionally, physical education majors in the United States typically take one full semester of student teaching, while China only requires a maximum of eight weeks. These differences reflect the position of professional teacher education in the American curriculum.

Chapter 5

Summary, Conclusions, and Recommendations

In this chapter, the results are summarized and significant characteristics for each nation are stated. Pertinent recommendation for each nation are also made.

Summary

The purpose of this study was to investigate the methods of professional preparation of physical education teachers in the United States and China and to provide recommendations for improvement in professional physical education to the countries. The study was designed to examine the different practices for professional preparation in areas of the admission, curriculum content, and curriculum structure.

Fourteen universities, seven each in the United States and China were selected after consulting the leading scholars and administrators in professional physical education. The information was obtained by contacting AAHPERD and the physical education departments of these universities. Interviews were performed and questionnaires were sent to the administrators of the select universities.

A review of the undergraduate catalogues, the professional physical education teaching plans of the selected universities, the questionnaire, documents of AAHPERD, State (National) Education Commission (China), and

State (National) Physical Education and Sport Commission was performed. Descriptive statistics and t-tests were also used to analyze and compare the curricula of the two countries.

The results of this study were as follows:

1. In the United States, requirements for university admissions generally included high school academic records and a college standard entrance examination. Teacher education programs set higher requirements for their applicants. Specific requirements used for screening physical education majors were not observed. In China, the prospective physical education teacher was required to meet some basic qualifications for application. They were also required to pass a series of academic tests, physical fitness tests, and sport skill tests before being accepted into the physical education program.

2. In the selected American universities, graduation requirements for physical education majors included an average of 47 courses of 1,962 class hours. In the selected Chinese universities, the physical education major was required to take 43 courses of 3,406 class hours. A significant greater difference was found in the required class hours in the Chinese universities.

3. In the United States, general education was

structured with a broad-based coverage and consisted one third of the entire coursework. In China, it consumed over one fifth of the entire coursework and focused more on Chinese, foreign language and politics. Significant differences were observed for both the required number of courses and the required class hours with the United States requiring more coursework in this area.

4. In the United States, the academic coursework occupied a very large portion in the major requirements. In China, activity and sport performance occupied more class hours than academic as shown by 1,415 to 1,156 class hours. Significant differences were observed regarding the total required major class hours, the required class hours for the academic area, and the required class hours for the activity area between the two countries, with China requiring more hours in each of these areas.

5. In the United States, pedagogical requirements were highly emphasized. These were reflected by the number of required courses, required class hours, the length of the student teaching experience, and the requirements for teacher licensure. There were significant differences in the number of courses and the class hours for the pedagogical area between the United States and China, with the United States requiring more class hours in this area.

Conclusions

The conclusions of the study and the most significant characteristics of the Chinese program of professional preparation of physical education teachers at the undergraduate level are:

1. Strict, selective admissions were required;
2. Emphasis was placed on the learning of sport skills, and at least one sport specialty per individual;
3. Student teaching is administered by the physical education department at the university, and student teachers are monitored rigorously;
4. An undergraduate thesis was required for graduation.

The most impressive features of the American program are:

1. General education classes comprised of a third of the coursework. The classes were broad based;
2. Motor learning and development was emphasized. There was a lack of activity and sport performance courses;
3. A knowledge of a healthy lifestyle and physical education for the disabled were required for physical education majors;
4. Pedagogical requirements were highlighted. There was also a well organized system of screening prospective

teachers using retention standards of teacher education and a series of teacher examinations for teacher licensure;

5. The selection of a second teaching area was strongly encouraged in order to compete in the job market upon graduation.

Recommendations

Based upon the results of this study, recommendations are made as follows:

For China

1. The State Education Commission and State Physical Education and Sport Commission should develop basic guidelines that generally define the body knowledge for professional physical education. The guidelines should maintain enough flexibility to allow the universities to design their individual curriculum, with courses and class hours fitting into the basic guidelines.

2. The activity and sport performance coursework should be revised to a reasonable portion of the major requirements. A better distribution might be a minimum of 30 percent and a maximum of 40 percent of the major coursework. Additionally, sports knowledge should not be limited to several formal sports. More options should be given to the physical education major with lifetime and prevailing activities such as fitness, rhythm, qigong (a

traditional activity), and various outdoor activities added to the curriculum.

3. The requirement of one selected specialty sport could be merged into the coaching minor with some additional course requirements such as biomechanics, biochemistry, coaching theories, sport psychology, and a coaching internship.

4. The major academic coursework should be revised and emphasis be placed on the most important practical knowledge. For example, "motor learning and development" could be one specific course in which the relevant teaching contents now scattered in courses such as "school physical education", "foundations of physical education", "exercise physiology", and "psychology of physical education and sport".

5. Pedagogical requirements should be strengthened in order to develop the student's exposure to teaching methods, and supervision of school physical education and sports. Courses such as "school physical education curriculum", "administration of school physical education and sports", and "teenage physical and psychological development" could be listed as core courses for the physical education major. Additionally, at least one semester of full time student teaching experience is necessary. It is impossible for the

physical education students to practice each assignment effectively within six to eight weeks.

6. The department of physical education should develop at least a health education minor program, in order to meet the increasing needs of the elementary and secondary schools. This health education program should consist of courses such as "personal health", "public health", "nutrition", "sex education", "evaluation of health", "school health program and administration", and "first aid".

For the United States

1. In order to develop an effective role model, future physical education majors should possess a minimum fitness level. This factor should be considered as one of the basic selective admission or exit requirements for professional physical educators.

2. Basic sport skill and sport experience should be a fundamental requirement for physical education students. This experience cannot be compensated completely by the theoretical analysis in courses of motor learning and development. A greater teaching emphasis should be placed on learning sport skills and their instructional techniques.

3. The supervision of student teachers should be performed by a team cooperating closely with the department of education. This team should consist of cooperating

teachers, school authorities, and physical education departments. The university department of education and the physical education department should also be more actively involved in monitoring their students.

The reform of the physical education teacher education is always an on-going topic for physical educators in both countries. However, because of the different background in the social system, the level of economics, philosophical views, ideas, values, cultural habits, and professional recognition, the standpoint may be different. However, one may at least consider the following fundamental points regarding the purposes and goals of physical education:

(1) the unique function of physical education; (2) physical education in school setting and the characteristics of the students; (3) the need of development for individual and the society; and (4) the hidden values of physical education.

One should review each of these characteristics in the changing society before one can take any action.

In the near future, professionals from both countries must find solutions to the following issues: (1) what is the basic structure of knowledge that a physical education teacher should possess? (2) how could the knowledge be reasonably organized? (3) what is the best delivery?

China, with the expected tremendous economic

development and the completion of market economics in the next two decades, has special needs. Chinese administrators and faculty who are involved in the professional preparation of physical education teachers must be very sensitive to the new approaches and issues. Those in decision making roles must take into consideration the needs and characteristics of the present younger generation, which is limited to a family with one child. The geographical divisions that afford such differences in the population between the areas along the east and south coastlines and inland, and the divisions that separate municipal and rural areas, are also issues to be considered. For example, non-teaching occupations are emerging in economically developed zones. These professions include directors or coordinators of various sports clubs, fitness/wellness instructors, sport facility administrators, sports editors and journalists, directors of mass physical education and sport, sport business promoters, sport information analysts, aerobic dancers, and exercise specialists. These professions need training suitable for their various functions, which may differ from the educational setting. By contrast, the rural and economically undeveloped areas still face educational budget shortages and a lack of qualified physical education teachers.

In the next two decades, with rapid economic growth, Chinese people will seek a better quality of life. Careers related to fitness, sports, and recreation will continue to expand. Departments of physical education in higher education will face big challenges. They will have to strive to maintain quality in physical education teacher education. Simultaneously, those in power have to take responsibility for offering non-teaching programs. The United States should consider the possibility that in the near future teacher education may require five years of schooling or licensure can only be granted at the graduate level.

APPENDICES

APPENDIX A

LIST OF THE SELECTED UNIVERSITIES
AND THE ABBREVIATIONS USED IN THIS STUDY

APPENDIX A

LIST OF THE SELECTED UNIVERSITIES
AND THE ABBREVIATION USED IN THIS STUDY**China:**

Beijing Normal University (BNU)

Beijing Physical Education and Sport University (BPESU)

East China Normal University (ECNU)

Hang Zhou University (HZU)

Shanghai Physical Education and Sport Institute (SPESI)

Shanghai Normal University (SNU)

South China Normal University (SCNU)

The United States:

Arizona State University (ASU)

Pennsylvania State University (PSU)

University of Illinois at Chicago (UIC)

University of Maryland--College Park (UMCP)

University of North Carolina at Greensboro (UNCG)

University of South Carolina--Columbia (USCC)

University of South Florida at Tampa (USFT)

APPENDIX B

REQUEST LETTER FOR IDENTIFYING
PHYSICAL EDUCATION TEACHER EDUCATION PROGRAMS
AS SELECTED SUBJECTS FOR THIS STUDY

APPENDIX B

REQUEST LETTER FOR IDENTIFYING
PHYSICAL EDUCATION TEACHER EDUCATION PROGRAMS
AS SELECTED SUBJECTS FOR THIS STUDY

Sixin Xiang
Middle Tennessee State University
HPER Department
P.O. Box 96
Murfreesboro, Tennessee 37132

Date

Delivery Address

To Whom It May Concern:

I am a doctoral student at Middle Tennessee State University and plan to do my dissertation on a cross-cultural comparison and analysis of undergraduate physical education teacher preparation programs between the United States and China. You have considerable expertise in the professional preparation of physical education teachers as demonstrated by extensive publications in the area. I am requesting your professional help in identifying some excellent American (Chinese) programs for my study. Would you please list five to ten universities on the enclosed sheet and return within ten days?

Your suggestions are crucial, for my subjects must reflect the actual picture of American (Chinese) physical education teacher education. I appreciate your time and knowledge.

If you have any questions relating to this request, please contact me (phone number), or my major advisor, Dr. Dianne Bartley (615-898-2891).

I appreciate your time and I am looking forward your early reply.

Sincerely,

Sixin Xiang
(Enclosure)

THE TOP TEN UNIVERSITIES WITH PROFESSIONAL PHYSICAL
EDUCATION TEACHER EDUCATION PROGRAMS AT THE UNDERGRADUATE
LEVEL

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Other suggestions:

APPENDIX C

LIST OF FREE ELECTIVES IN PETE
CURRICULA IN CHINA

APPENDIX C

LIST OF FREE ELECTIVES IN PETE CURRICULA IN CHINA

Adapted Physical Education
Administration of Physical Education and Sport
Advanced Pedagogy
Aesthetics in Physical Activity
Advanced Mathematics
Bio-Mechanics
Chinese Literature
Chinese Traditional Medicine and Health
Comparative Physical Education and Sport
Computer Language
Design and Maintenance of Sport Facility
Electrical Physiology
Foreign Language applied in Physical Education and Sport
Genetics
Hygiene for School Setting
Massage Techniques
Methodology of Teaching
Methods of Exercise
Multiple Regression Methods
New Development of Life Science
Nutrition for Athletes
Prevention of Sport Injuries
Psychology of Education
Scientific Methods in Selecting Potential Elite Athletes
Sport Bio-Chemistry
Sport Business
Sport for Masses (general population)
Sport Journalism
Sport Medicine
Sport Officiating
Sport Photography
Techniques in Biochemical Study
Qigong (a meditative exercise)
World History of Physical Education and Sport
Baseball
Badminton
Bowling
Fitness
Football
Rhythm and Dance
Skate
Skiing
Softball
Synchronized Swimming
Table Tennis
Team Hand Ball
Tennis
Weight-lifting

APPENDIX D
LETTER REQUESTING INFORMATION

APPENDIX D

LETTER REQUESTING INFORMATION

Sixin Xiang
Middle Tennessee State University
HPER Department
P.O. Box 96
Murfreesboro, Tennessee 37217

Date

Delivery Address

To Whom It May Concern:

I am a doctoral candidate in the Health, Physical Education, and Recreation Department at Middle Tennessee State University. My dissertation is a cross-cultural study which compares and analyzes the differences and similarities in undergraduate physical education teacher education between the United States and China.

After consulting knowledgeable individuals in this field, I have selected your university as one of my subjects because of your leadership position in the professional preparation of physical education teachers. I am writing you to request the following:

1. An undergraduate catalog;
2. A copy of any departmental forms which are used by the physical education major as a guide towards graduation;
3. and That you please complete the attached two-page questionnaire.

Your help is very important to me. Without your support, I cannot conduct my dissertation research. I should like to thank you in advance and tell you I appreciate your time. I hope to receive your reply within two weeks.

If you have any questions regarding my request, please contact me (phone number), or my advisors, Dr. Bartley (615-898-2891), or Dr. Wilcox (615-898-2888). Thank you again for your professional help.

Sincerely,

Sixin Xiang

APPENDIX E

QUESTIONNAIRE ON PHYSICAL EDUCATION TEACHER EDUCATION

APPENDIX E

QUESTIONNAIRE ON PHYSICAL EDUCATION TEACHER EDUCATION

1. FACULTY

- a. The number of faculty in your department:
full-time _____; part-time _____;
- b. The number of faculty with the terminal degrees _____.

2. STUDENT

- a. The number of students currently enrolled in your department:
undergraduate: full-time _____; part-time _____
graduate _____
- b. The number of physical education majors currently enrolled:
undergraduate: full-time _____; part-time _____
graduate _____

3. REQUIREMENTS

- a. Above and beyond the university general requirements of admission, does your department have any other special selective admission requirements?
If yes, please check the kind of requirements you seek:
- 1) interview _____
 - 2) recommendations _____
 - 3) written test _____
 - 4) a minimum GPA _____
 - 5) physical fitness tests _____
 - 6) physical examination _____
 - 7) health tests _____
 - 8) sports skill tests _____
 - 9) others (indicate) _____
- b. Does your department have any other special graduation requirements for physical education students?

4. STUDENT TEACHING AND TEACHER CERTIFICATION

- a. What levels of teaching certification does your school offer to physical education major students?

K-6 (); K-8 (); 7-12 (); K-12 ();
others_____.

- b. The length of student teaching experience for physical education major students:

one semester full time teaching ();
one semester part time teaching ();
one academic year full time teaching ();
one academic year part time teaching ();
others_____.

- c. What type of grade (pass/fail or satisfactory/unsatisfactory, letter, percentage scores, etc.) does your university use to evaluate the student teacher?

- d. Are your department faculty members involved in supervising and evaluating student teachers in physical education?

- e. Before the teacher certificate is issued, are there any tests the physical education major student must take?
If yes--name:

5. ACCREDITATION

- a. Is your physical education teacher education program accredited? If yes, who is the accreditation body, and in which year?

Many thanks for your professional help. Please return the questionnaire with the other information as soon as possible to:

Sixin Xiang
Middle Tennessee State University
HPER Department
P. O. Box 96
Murfreesboro, Tennessee 37132

APPENDIX F
FOLLOW-UP LETTER

APPENDIX F
FOLLOW-UP LETTER

Sixin Xiang
Middle Tennessee State University
HPER Department
P. O. Box 96
Murfreesboro, Tennessee 37132

Date

Delivery Address:

To Whom It May Concern:

I am a doctoral candidate in physical education. I have begun work on my dissertation which is a cross-cultural study. I plan to analyze and compare the programs of professional preparation for physical education teachers between the United States and China.

Two weeks ago I mailed you a letter and a questionnaire. Since I have not yet received your reply this letter serves as a reminder. I am enclosing another questionnaire in case the first is lost. I look foreword to your early reply. If you have already returned the questionnaire I thank you and appreciate your time and professional support.

Sincerely,

Sixin Xiang
(Enclosure)

APPENDIX G

NCATE GUIDELINES FOR PROFESSIONAL PREPARATION

APPENDIX G

NCATE GUIDELINES FOR PROFESSIONAL PREPARATION

Guidelines for the physical education teaching specialty areas include: (1) fundamental motor skill; (2) sports and games; (3) lifelong leisure activities; (4) dance and rhythms; (5) exercise and health-related fitness; (6) physiological; (7) anatomical; (8) mechanical; (9) motor behavior; (10) developmental; (11) historical; (12) sociological; (13) psychological; and (14) philosophical (AAHPERD, 1992).

Physical education as a profession includes guidelines for five areas guidelines: (1) the role of physical education in schools and society; (2) the personal philosophy of physical education; (3) the socialization of physical education teachers; (4) adapted physical education programming; and (5) physical education programming (AAHPERD, 1992).

In the pedagogical physical education component, there are six guidelines: (1) planning and the teaching-learning process; (2) management of physical education classes; (3) analysis of motor performance; (4) assessment of students in physical education; (5) evaluation of the teaching-learning process; and (6) application of pedagogical skills (AAHPERD, 1992).

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