

AN EVALUATION OF SELECTED UNDERGRADUATE PROFESSIONAL
PREPARATION PROGRAMS IN PHYSICAL EDUCATION

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This study is an evaluation of the programs in fourteen selected Texas colleges and universities to prepare undergraduates for teaching careers in physical education. The study uses its analysis of current programs as a basis for recommending improvements in them.

Practices, policies, and facilities of each institution were recorded on the Bookwalter-Dollgener Score Card, an instrument which measures the following areas: (1) General Institutional and Departmental Practices, (2) Staff Standards, (3) Curriculum Policies, (4) The Teaching Act, (5) Service Program and Extended Curriculum, (6) Student Services, (7) Library-Audio-Visual, (8) Supplies and Equipment, (9) Indoor Facilities, and (10) Outdoor Facilities. On this score card, the maximum possible score is 1,000 points, and the national average is 750 points. Data were analyzed by converting the raw scores on each area to percentages by the following formula: (obtained score/possible score). The area scores were then

ranked and compared by percentage. The Spearman rank-order correlation was computed to determine the interrelationships of the area scores as well as their relationships to the total of all scores on the card.

The study revealed that (1) schools with high scores in the area of curriculum policies also had the highest total scores; (2) there was no significant correlation between the areas of staff standards and student services; (3) schools with large enrollments (above 18,000) scored high on the card; (4) all schools exceeded a 75-percent score in the areas of service program and extended curriculum; (5) the top six schools in total attainment also ranked highest in student services; (6) schools which exceeded the 75-percent score in the area of staff standards also exceeded that score in the area of curriculum policies. These findings lead to the following conclusions: (1) professional preparation programs in physical education in the schools range from below average to above average attainment and the mean, 77.5 percent, is higher than previous studies using this score card; (2) one-half of the staff members polled do not affiliate with professional organizations in their fields; (3) institutions with enrollments under 6,000 have weaknesses primarily because of

financial reasons; (4) general education, foundation sciences, and general professional education are adequate in terms of the score card; (5) health services in general meet the 75-percent attainment, but small schools need full-time physicians and nurses as well as adequately equipped health centers; (6) audio-visual and instructional materials are not usually centrally located; and (7) approximately one-half of the staff members do not participate in research and publications. This study uses these conclusions for the basis of its recommendations for revising or improving the programs in the schools under study.

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AN EVALUATION OF SELECTED UNDERGRADUATE PROFESSIONAL
PREPARATION PROGRAMS IN PHYSICAL EDUCATION

DISSERTATION

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TABLE OF CONTENTS

	Page
LIST OF TABLES	v
Chapter	
I. INTRODUCTION	1
Statement of the Problem	
Purposes of the Study	
Research Questions	
Background and Significance	
Limitations	
II. REVIEW OF RELATED LITERATURE	11
Summary	
III. METHODS AND PROCEDURES	37
Introduction	
Instrument	
Pilot Application	
Administration of the Score Card	
Procedures for Analysis of Data	
IV. PRESENTATION AND ANALYSIS OF DATA	44
General Institutional and Departmental Practices	
General Policies	
Staff Standards	
Curriculum Policies and Practices	
The Teaching Act	
Service Program and Extended Curriculum	
Student Services	
Library-Audio-Visual	

TABLE OF CONTENTS--Continued

Chapter	Page
Supplies and Equipment	
Indoor Facilities	
Outdoor Facilities	
Summary of Findings	
V. SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS	85
Summary	
Findings	
Conclusions	
Recommendations	
APPENDIX	94
BIBLIOGRAPHY	101

LIST OF TABLES

Table	Page
I. Rank Order of Fourteen Schools by Percent of Attainment as Measured by the Bookwalter-Dollgener Score Card	47
II. Correlation of the Total Score Card with the Ten Sub-areas of the Bookwalter-Dollgener Score Card	48
III. Attainment for General Institutional and Departmental Practices as Measured by the Bookwalter-Dollgener Score Card	49
IV. Attainment for Staff Standards as Measured by the Bookwalter-Dollgener Score Card	52
V. Attainment for Curriculum Policies and Practices as Measured by the Bookwalter-Dollgener Score Card	55
VI. Attainment for the Teaching Act as Measured by the Bookwalter-Dollgener Score Card	57
VII. Attainment for Service Program and Extended Curriculum as Measured by the Bookwalter-Dollgener Score Card	60
VIII. Attainment for Student Services as Measured by the Bookwalter-Dollgener Score Card	63
IX. Attainment for Library-Audio-Visual as Measured by the Bookwalter-Dollgener Score Card	66
X. Attainment for Supplies and Equipment as Measured by the Bookwalter-Dollgener Score Card	69

LIST OF TABLES--Continued

Table	Page
XI. Attainment for Indoor Facilities as Measured by the Bookwalter-Dollgener Score Card	72
XII. Attainment for Outdoor Facilities as Measured by the Bookwalter-Dollgener Score Card	75

CHAPTER I

INTRODUCTION

There is increasing concern among educators about the content and quality of professional preparation programs in physical education. Criticisms of professional education range on a continuum from wholehearted support of the status quo to bitter condemnations.

Physical education has great promise as an emerging profession if it faces up to the many challenges that are presenting themselves. Whether or not these potentialities are realized will be determined to a great extent by the professional student in the present time.¹

The teacher education program should be committed and maximally involved in a program designed to provide physical educators with such competencies and skills as to promote optimum efficiency in their field of concentration.

In support of the philosophy undergirding the teacher education program, organization of physical education programs in terms of selection, retention, and professional preparation

¹Charles A. Bucher, Foundations of Physical Education (Saint Louis, Missouri, 1968), p. 744.

should provide appropriate professional and academic experiences for prospective physical educators. The professional education program for physical educators is multi-disciplinary and college-wide; however, through division of responsibility various departments are charged with the teaching, supervisory, and administrative responsibility of the professional preparation in physical education.

Statement of the Problem

The problem of this study was to investigate and evaluate the undergraduate professional preparation programs in physical education of selected state-supported colleges and universities in the state of Texas.

Purposes of the Study

The purposes of the study are as follows: (1) to determine the status of undergraduate professional preparation programs in physical education in state-supported colleges and universities in the state of Texas which are affiliated with the National Council for Accrediting Teacher Education (NCATE), and (2) to use the results of the study as a basis for making recommendations for the improvement of professional preparation programs in physical education.

Research Questions

The following questions were considered in conducting the study. Although the data collected do not provide definite answers, they should provide guidance for initial decision-making in terms of professional preparation programs in physical education.

1. Using the Bookwalter-Dollgener Score Card, will the schools with the highest number of points in the area of curriculum policies and practices also have the highest number of total points?

2. Can the total points attained by schools in the areas of staff standards, curriculum policies and practices, student services, and indoor facilities be utilized in evaluating the professional programs on the Bookwalter-Dollgener Score Card?

3. Do the schools with the largest enrollments have the highest total score on the Bookwalter-Dollgener Score Card?

4. Which of the ten areas on the Bookwalter-Dollgener Score Card consistently yields the highest percent of attainment?

5. Will schools with the highest percent on the Bookwalter-Dollgener Score Card in the area of curriculum policies and

practices also consistently earn the highest percent attained in the area of student services?

6. Will schools with the highest percent attained on the Bookwalter-Dollgener Score Card in the area of staff standards also consistently earn the highest percent attained in the area of curriculum policies and practices?

Background and Significance

The first national conference on physical education for the college student was held in 1885 at Adelphi Academy in Brooklyn, New York. A majority of the members at the first meeting of the Society for the Improvement of Physical Education were college faculty, and they concerned themselves primarily with program analysis.

Not until 1952, at the College Physical Education Association meeting, did the Required Service Program Committee discuss the need for a national meeting to work on the principles and guidelines for physical education programs.²

Through a planning committee meeting in New York City in 1954, a number of problems were submitted and classified. In

²American Association for Health, Physical Education, and Recreation, "Evaluation Schedules for Major Programs of Health Education, Physical Education, and Recreation," Journal of Health, Physical Education, and Recreation, XXIV (April, 1953), pp. 27-30.

1957, this group became the Joint Committee on Physical Education Programs for College Men and Women, and planned the 1958 workshop in Kansas City.³ The outcome of this 1958 workshop was a list of fifty general principles as criteria for appraisal of instructional programs of physical education in colleges and universities. The Joint Committee on Physical Education for College Men and Women was charged with the responsibility for improving college programs. This committee held a conference in 1962, at the National Education Center in Washington, D. C., to review the findings of 1954, to consider the special problems of the present, and to lend direction to the improvement of existing and future programs of physical education. It was the purpose of this conference to find ways of developing and maintaining high quality programs for all students in colleges where expanding populations made demands upon both facilities and teaching personnel. This committee developed a series of guiding questions which formed an outline

³American Association for Health, Physical Education, and Recreation, "Physical Education for College Men and Women," Journal of Health, Physical Education, and Recreation, XXXIV (January, 1963), pp. 25-26.

for a discussion on the improvement of college physical education programs.⁴

Along with program improvement, the American Association for Health, Physical Education, and Recreation was vitally interested in the professional education of the personnel in the areas it represented. In 1960, approval was given for a professional preparation conference which would encompass all aspects of preparation in the field. The major conference recommendations were related to a more general curriculum in the first four years. The need for five years of professional preparation was stressed, and state certification requirements were not to be regarded as optimum standard preparation. It was emphasized that a curriculum designed to prepare professional personnel for a changing society must be responsive to change, and a stronger emphasis must be put on professional obligations and responsibilities of the individual.

In June of 1962, another Joint National Conference of the Division of Girls' and Women's Sports and the Division of Men's

⁴Delbert Oberteuffer, "Evaluating the College Physical Education Program," National College Physical Education Association, Proceedings of the Sixty-Seventh Annual Meeting (Dallas, 1964), p. 56.

Athletics was held at Interlochen, Michigan.⁵ The Conference on Values in Sports presented nine specific areas of discussion for the Division of Men's Athletics. These included an examination of value received from sports programs, general concern over moral disintegration in America, and the question of whether or not sports could help stem the tide. It was agreed that sports were a multi-valued experience, not limited to fitness, skills, and entertainment, but reaching into the deepest problems of personality development. Sports were also said to be a cultural enterprise, similar to art, music, drama, and literature. There was, according to the conference members, a great need for an understanding of sports as a means of influencing the American culture for the betterment of society. Physical educators were asked to recognize the need for research into the subject of how sports might influence character development and respect for social and behavioral sciences. Oxendine concluded that there was a rich potential and great interest in sports.⁶

⁵American Association for Health, Physical Education, and Recreation and the National Education Association, Values in Sports, A Report of a National Conference (Washington, June, 1963), p. 8.

⁶Joseph B. Oxendine, Survey of the Status and Trends of Required Physical Education Programs in Colleges and Universities of the United States, (Washington, 1960), p. 8.

The establishment, in 1952, of the National Council for the Accreditation of Teacher Education (NCATE) was the culmination of several of the major professional education organizations being grouped into a single voluntary membership organization. This organization periodically evaluates teacher-preparation institutions. The result of the evaluation is accreditation, probation, or censure. Certainly the National Council for Accreditation of Teacher Education could not completely solve the many academic and organizational problems that have besieged the teacher-preparation institutions for so many years, but the consensus of professional educators was that an evaluation system had to be developed to help the faculty understand the ramifications of the total educational program and make judgements as to the aspects of the program needing improvement.⁷

In January of 1973, the Physical Education Task Force of the American Association for Health, Physical Education, and Recreation met in a professional preparation conference in New Orleans, Louisiana. The conference on professional preparation presented five general areas of discussion for the

⁷American Association for Health, Physical Education, and Recreation, Professional Preparation: In Health Education, Physical Education, Recreation Education, A Report of a National Conference (Washington, D. C., 1962), p. 31.

conferees. These included an examination of the competencies needed in the General Education, Human Movement, Physical Education, Professional Competencies, and Evaluation areas of professional preparation programs.

An important aspect of this conference was to conceptualize certain competencies needed in physical education and to discuss possible competencies and experiences needed in a competency-based program in physical education.

Limitations

This study was limited to the fourteen state-supported colleges and universities within the state of Texas which offer undergraduate professional preparation programs in physical education and whose teacher education programs are accredited by the National Council for the Accreditation of Teacher Education.

The study was further limited to the areas as listed on the Bookwalter-Dollgener Score Card. The areas were (1) General Institutional and Departmental Practices, (2) Staff Standards, (3) Curriculum Policies and Practices, (4) The Teaching Act, (5) Service Programs and Extended Curriculum, (6) Student Services, (7) Library-Audio-Visual, (8) Supplies and Equipment, (9) Indoor Facilities, and (10) Outdoor Facilities.

The schools included in the study were East Texas State University, Lamar University, North Texas State University, Prairie View A & M College, Stephen F. Austin State University, Sam Houston State University, Southwest Texas State University, Texas A & I University, Texas Southern University, Texas Tech University, Texas Woman's University, University of Houston, University of Texas at Austin, and West Texas State University.

CHAPTER II

REVIEW OF RELATED LITERATURE

A review of related studies and literature indicates that the present status of physical education is of considerable interest, and that several instruments have been devised in an attempt to better evaluate physical education at various school levels. A number of studies were found concerning evaluation of physical education programs in high schools, junior colleges, colleges, and universities on a state-wide basis, as well as on a national scale. All bore some element of similarity to this study.

Brownell,¹ in 1932, was one of the first to stress evaluation in physical education programs. He pointed out the following areas in which work needed to be done: (1) organization of teacher preparation as a separate school, department, or college of physical education, (2) student selection, (3) curriculum in teacher preparation, (4) faculty qualifications

¹Clifford L. Brownell, "The Present Status of Professional Preparation of Teachers in Physical Education," Research Quarterly, III (May, 1932), 107-111.

(5) facilities and equipment, (6) practice teaching, and (7) classification of professional preparation institutions and certification.

In 1933, Neilson chaired a committee concerned with teacher training in physical education. The committee considered three basic problems involving (1) standards enabling institutions to evaluate their training of the elementary physical education teacher, (2) standards with which to evaluate the preparation of men as physical education teachers, and (3) standards with which to evaluate the preparation of women as teachers of physical education.²

Among committee recommendations were requirements of certain courses for physical education teachers and specific recommendations for personnel regarding experience of faculty, teacher-pupil ratio, and training of faculty. Student selection factors were specifically outlined. These included such items as character, age, scholarship, health standards, and physical skill test results. Also considered in this study were indoor facilities, outdoor facilities, library, health service, and institutional policies and practices.

²N. P. Neilson and Staff, "Report of the Committee on Teacher Training in Physical Education in the United States," Research Quarterly, IV (March, 1933), 51-67.

Russell³ evaluated the service programs in the senior colleges of Texas in 1954. He developed a comprehensive list of standards which were formulated into a detailed questionnaire. In his study, he surveyed thirty-nine senior colleges in Texas, of which twenty-four were personally visited, either before preparation of the questionnaire or afterward, as a follow-up procedure. The standards selected from a review of the literature were evaluated by a group of highly qualified jurors in the field of physical education.

The Standards selected were the following:

1. Administrative Standards and Policies
 - a. Standards for Institutional Organization
 - b. Standards for General Administration
 - c. Standards for Staff
 - d. Curriculum Standards and Policies
 - e. Standards and Policies for Activity Requirements
 - f. Standards for Curriculum Scope
 - g. Standards for Records and Publicity
 - h. Standards for Adapted Physical Education

³Lloyd O. Russell, "An Evaluation of Required Physical Education for Men in Senior Colleges and Universities of Texas," unpublished doctoral dissertation, School of Education, University of Texas, Austin, Texas, 1954, pp. 59-144.

2. Standards and Policies for Indoor and Outdoor
Facilities

- a. Standards for Indoor Facilities
- b. Standards for Main Gymnasium Lobby, Administrative Offices, and Classrooms
- c. Standards for Main Gymnasium Floor and Special Activity Rooms
- d. Standards for Dressing and Locker Room, Shower Room, and Toweling-Drying Room
- e. Standards for Gymnasium Special Service Facilities
- f. Standards for Gymnasium Heating, Lighting, and Ventilation
- g. Standards for Indoor Court Facilities Based on Class Enrollment
- h. Standards for Health Service Facilities
- i. Standards for Natatorium Facilities

On the basis of his findings, Russell concluded that highly desirable standards for required physical education were generally not being met in a large percentage of the senior colleges and universities of Texas.

In 1933, Hughes⁴ made a study to evaluate the standards and policies concerning administration of health and physical education programs for men in colleges and universities. The seven aspects of the total program which he considered were (1) administrative plan, (2) health supervision, (3) health service, (4) health instruction, (5) required activities, (6) intramural sports, and (7) intercollegiate athletics. He compiled a list of 850 items which he gleaned from the literature and his own personal experience. He then refined these items to 810. This final list of items was eventually rated by the experts as being either essential or highly desirable for a successful physical education program.

In 1935, the Research Quarterly presented the results of a study conducted by the National Committee on Standards.⁵ Its purpose was to formulate a set of standards to be used to evaluate institutions engaged in preparing young men and women to teach physical education. Eighteen pages of proposed

⁴W. L. Hughes, "The Administration of Health and Physical Education for Men in Colleges and Universities," Research Quarterly, IV (March, 1933), 140-144.

⁵National Committee on Standards, "National Study of Professional Education in Physical Education," Research Quarterly, VI (December, 1935), 48-69.

standards were sent to all state directors of health and physical education. Each director was asked to secure constructive criticism from persons in his state regarding these proposed standards.

Upon completion of this phase, the National Study Committee was appointed. The members divided the problem of professional preparation into the following areas: (1) basic characteristics of the secondary program, (2) general standards, (3) standards for the selection of students to be trained, (4) course standards, (5) standards of staff, and (6) standards of facilities. Specific standards for program were enumerated under each area. The main criticism of this research was that the proposed standards needed to be simplified in order to contain only those minimum essentials on which the majority of the profession could agree.

Mumford,⁶ in 1948, evaluated thirty-one physical education programs of the forty-eight senior colleges for Negroes. The data presented indicated that Negro colleges have a highly mixed, heterogeneous preparation with respect to physical

⁶Arnett W. Mumford, "The Present Status of Health and Physical Education Programs in Negro Senior Colleges," Research Quarterly, XIX (October, 1948), 190-197.

education programs ranging from mediocre to some which were very highly rated. Four basic problems existed. They were (1) limited funds, (2) inadequate facilities, (3) inadequate number of properly trained instructors, and (4) attitude of college administrators toward health and physical education programs.

The National Conference on Undergraduate Professional Preparation in Physical Education, Health, and Recreation⁷ met in 1948 at Jackson's Mill, West Virginia, for the purpose of crystallizing the thinking in the field and of improving undergraduate professional preparation through establishment of standards. Their accomplishments were (1) development of a separate, recommended, professional preparation program for three fields of health, physical education, and recreation, (2) development of a separate, recommended, professional preparation program based on principles and standards related to area of staff, facilities and equipment, teacher load, curricula, resource materials, selection, recruitment and guidance

⁷The Athletic Institute, Inc., National Conference on Undergraduate Professional Preparation in Physical Education, Health Education, and Recreation, A Report of a National Conference (Chicago, 1948).

of students and, (3) development of cooperation between professional groups and the distribution of the conference results. The conference did not develop specific standards. The standards were merely generalizations which could be interpreted individually by the institutions.

The Bookwalter studies⁸ followed during the years 1950-1954. Bookwalter, at Indiana University, directed studies of thirty doctoral candidates, making a national survey of health and physical education for boys in high schools. A health and physical education score card, constructed by William Ralph La Porte, was used in each of the high schools. The score card consisted of the following ten areas: (1) program of activities, (2) outdoor areas, (3) indoor areas, (4) locker and shower areas, (5) swimming pool, (6) supplies and equipment, (7) medical examination and health services, (8) modified individual (or corrective) activities, (9) organization and administration of class programs, and (10) administration of intramural and inter-school athletics. Each area of the score card had a possible score of thirty points, to be obtained

⁸Karl W. Bookwalter, "A National Survey for Health and Physical Education for Boys in High Schools," Bureau of Service and Research, School of Health, Physical Education, and Recreation, Indiana University (Bloomington, 1955), Mimeographed.

through ten items, each having a possible score of three points.

The findings of the national survey were as follows:

1. The southern states, on the average, were inferior to the northern states.
2. On a national scale, the high schools were less than 30 percent effective in total programs.
3. Remedial work and swimming were the two lowest areas of the programs.
4. Organization and athletic areas were the two highest scoring areas, in that order.
5. Negro school programs tended to be inferior to white school programs.
6. Teachers were less effective than administrators in meeting the standards.
7. State athletic associations, regional associations, and state departments ranked, in that order, in eliciting effectiveness.
8. Nationally, practically all items in the score card discriminated.
9. Sound athletic programs were associated with good total programs.
10. Accreditation, school size, and town size, in that order, were associated with improved programs.
11. On no standard of the score card was a superior rating received on a national level.

12. Twenty-five items, on a national scale, received an inferior rating.⁹

Phillips studied fourteen college service programs in 1953 and utilized the basic administrative principles gathered from a survey of the literature. Standards were developed, established, and validated by a panel of twelve recognized authorities in the field of physical education. In a survey of forty-six institutions in New York State, Phillips used a questionnaire which resulted in a 100-percent return. Arithmetic mean scores were obtained for each of the eleven major headings and, on the basis of these mean scores, the institutions were ranked and a representative sample of fourteen institutions was obtained for the purpose of further study.

The fourteen institutions comprising the representative sampling were visited personally by Phillips and additional data were collected. A rating scale was developed on the basis of optional and essential standards. The optional standard received a rating of eight points, and the essential standard, four points. Variations above or below these two constants received corresponding point values from ten to zero.

⁹William Ralph La Porte, Health and Physical Education Score Card No. II (Los Angeles, 1951).

A summary of Phillips' findings includes the following:

1. The evaluation showed wide variation from excellent to poor programs.
2. A majority of institutions met or exceeded the minimum essential standards in the area of administration and supervision, attendance, staff, program, facilities, and equipment.
3. A majority of the institutions did not meet the minimum standards in institutional requirements, course requirements, and classification of students.
4. The questionnaire data received from the institutions were highly reliable and stable.
5. The percentage of institutions of higher learning in New York requiring physical education for graduation was much lower than was found to exist in similar institutions throughout the United States.
6. The quality of college physical education programs was reflected in the lack of adequate elementary and secondary school programs in New York State.¹⁰

Buice¹¹ prepared a self-evaluation scale based on recommendations of the National Conference on Undergraduate

¹⁰Byron Milo Phillips, "An Evaluation of the Physical Education Service Program in the Liberal Arts and Teachers' Colleges of New York State," unpublished doctoral dissertation, School of Education, New York University, New York, 1953, pp. 202-203.

¹¹Mary Buice, "A Scale for Evaluating the Undergraduate Professional Programs in Physical Education," unpublished master's thesis, The University of Texas, Austin, Texas, 1951.

Professional Preparation. This scale was designed for professional preparation programs for both men and women. The rating scale was divided into three areas: (1) background education for all teachers, (2) professional preparation in physical education, and (3) administrative considerations relative to physical education. The evaluations were made on a five-point scale and included the ratings of inadequate, fair, moderate, adequate, and excellent. The ratings were then given point values of 1, 2, 3, 4, and 5, respectively.

In the Sauter¹² study, conducted in Indiana in 1957, a jury-validated score card was used. Sauter was concerned with ten areas: (1) general institutional practices, (2) faculty and staff, (3) educational program, (4) professional laboratory experiences, (5) selection, guidance, and recruitment of students, (6) library and audio-visual materials, (7) indoor facilities, (8) outdoor facilities, (9) health services, and (10) placement and follow-up. These area scores were ranked by the percentage of area to total score. The rankings were (1) curriculum, 20 percent, (2) faculty and staff, 18 percent,

¹²William Sauter, "An Evaluation of the Undergraduate Professional Preparation in Physical Education for Men in Selected Colleges and Universities in Indiana," unpublished doctoral dissertation, School of Education, Indiana University, Bloomington, Indiana, 1957, p. 234.

(3) indoor facilities, 10 percent, (4) outdoor facilities, 9 percent, (5) general institutional practices, 8 percent, (6) professional laboratory experiences, 8 percent, (7) selection, guidance, and recruitment of students, 8 percent, (8) library and audio-visual materials, 7 percent, (9) health services, 6 percent, and (10) placement and follow-up, 6 percent. Using the score card, twenty-one schools were evaluated and ranked on the basis of their total scores. A comparison was made between small and large institutions. An item analysis of ten areas was also made in order to show the degree to which each standard was met.

Allsen evaluated physical education programs for men in Junior Colleges in the states of Idaho, Utah, and Wyoming in 1965, using the Neilson-Comer-Allsen score card. The elements of the program evaluated were: (1) instructional staff, (2) facilities, (3) program (organization), (4) program (activities), (5) professional assistance, and (6) teacher education program.

The following conclusions were drawn from an interpretation of the findings of the study:

1. The professional preparation of the fifteen male physical education instructors was generally good.

2. With the exception of two junior colleges, the membership of the instructors in professional organizations was not good.

3. Based on subjective judgments, the physical fitness, personality, character, and teaching efficiency of the instructors seemed to be excellent.

4. Attendance of the physical education instructors at professional meetings needed improvement.

5. In general, the physical education programs of the selected junior colleges were conducted by experienced instructors.

6. The area of the school sites at the majority of the schools was satisfactory.

7. The indoor facilities provided at the various schools were superior to the outdoor facilities.

8. The schools had no particular difficulties in the areas of supplies and equipment, with the exception of gymnastic, corrective, and testing equipment.

9. In general, the time allotment for physical education and the number of male students enrolled in physical education were unsatisfactory.

10. Record keeping related to the physical education program was good.

11. The variety of physical education activities offered in the junior college program was too limited.

12. Intramural programs were very weak and needed improvement.

13. The score card proved to be a useful instrument in the evaluation.¹³

Dollgener conducted a study to appraise critically A Score Card for Evaluating Undergraduate Professional Programs in Physical Education by Karl W. Bookwalter. This selected score card was designed for evaluating undergraduate professional programs in physical education. It consisted of the following ten areas: (1) general institutional and departmental practices, (2) staff standards, (3) curriculum policies and practices, (4) the teacher act, (5) service program and extended curriculum, (6) student services, (7) library and audio-visual aids, (8) supplies and equipment, (9) indoor facilities, and (10) outdoor facilities.

The conclusions of this study were as follows:

1. The selected score card used in this study is a valid, reliable, and objective evaluative instrument for measuring programs of professional preparation in physical education.

2. There is variation among the institutions in Indiana as to their programs of professional preparation in physical education.

3. The large, state-supported institutions of university status, with a school or division for preparing physical education teachers, came the closest

¹³Phillip E. Allsen, "An Evaluation of Physical Education Programs for Men in Selected Junior Colleges," unpublished doctoral dissertation, College of Physical Education, University of Utah, Salt Lake City, Utah, 1965, pp. 193-196.

to meeting the recommended standards of the selected score card.

4. Poor programs of professional preparation in physical education, as shown by this study, are in institutions characteristically small, privately supported, with liberal arts colleges do not provide the facilities, personnel, or program necessary to train qualified physical education teachers

5. All fifteen institutions included in this study have areas in which they are weak.

6. Area IV, The Teaching Act, ranked first in percent of attainment.

7. Area IX, Indoor Facilities, ranked the lowest in percent of attainment.

8. Area II, Staff Standards, according to this study is the best single indicator of a good program of professional preparation.¹⁴

Price¹⁵ evaluated the professional preparation programs in physical education in Missouri colleges and universities. The evaluation instrument, A Score Card for Evaluating Undergraduate Professional Programs in Physical Education (third

¹⁴Robert J. Dollgener, "A Critical Appraisal of a Selected Score Card for Evaluation of Undergraduate Professional Programs in Physical Education," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1965, pp. 207-212.

¹⁵Marjorie Ann Price, "An Evaluation of the Undergraduate Professional Preparation Programs in Physical Education in Missouri Colleges and Universities," unpublished doctoral dissertation, University of Missouri, Columbia, Missouri, 1968, pp. 68-70.

edition), was developed and validated by Bookwalter and Dollgener.

The following conclusions were stated relative to physical education undergraduate professional preparation programs in Missouri: (1) Institutions with teachers' college status scored highest in combined state percent of attainment for all institutions; and (2) small private liberal arts institutions scored lowest. The Teaching Act ranked highest in attainment in the state; Indoor Facilities ranked lowest. The best single indicator of a good program was the area of Staff Standards.

In other areas, the following items were noted: General Institutional and Departmental Practices had the smallest difference in range for all schools, while Curriculum Policies and Practices had the widest range. The Service Program and Extended Curriculum area had more private schools above the average than the state-supported institutions. In the area of Student Services, the weakest sub-area was follow-up and in-service education. Sixty percent of the private schools fell below the average in the area of Library-Audio-Visual. In supplies and Equipment, only 20 percent of the private schools attained the average. All schools ranked low in percent of attainment of Outdoor Facilities, with state-supported institutions lower than private schools.

There was a definite variation among the institutions in Missouri. Some institutions, because of their state purposes, instructional facilities, and institutional objectives, were unqualified to offer an undergraduate professional preparation program. Accreditation of the department was sometimes recognized on the basis of institutional accreditation.

Purnell conducted a study in an attempt to (1) examine the similarity between the results obtained from the use of the La Porte and Bookwalter score cards used to examine physical education programs, and (2) determine the status of physical education programs in the selected state-supported colleges and universities by the standards of the two instruments. In other words, the study sought to ascertain whether institutions that score high on one curriculum evaluative instrument also tend to score high on the other instrument.

The significant findings of the study were as follows:

1. The Bookwalter and La Porte score cards produced similar results in terms of overall results obtained in the evaluation; consequently, the two instruments are generally assessing physical education in a like manner.

2. The overall evaluation of the physical education programs of the eleven institutions was statistically significant and positive in direction when the combined results of the Bookwalter and La Porte score cards were correlated with the totals of each score card separately.

3. There were wide differences found in the status of physical education programs among the eleven institutions and within individual aspects of the individual physical education programs.

4. The Bookwalter score card indicated that the physical education programs of the eleven institutions were similar in General Institutional and Departmental Practices and in the Teaching Act Areas. Wide differences were found in these areas: Supplies and Equipment, Library-Audio-Visual Material, Indoor Facilities, and Curriculum Policies.

5. The La Porte score card indicated that the physical education programs of the eleven institutions were similar in the areas of: Program of Activities, Administration of Intramural and Inter-school Athletics, Outdoor Areas, Modified Individual (Corrective) Activities, and Medical Examination and Health Services. However, wide differences were found in the areas of Supplies and Equipment and Swimming Pool.¹⁶

Buck critically evaluated the undergraduate professional preparation programs in physical education in Oklahoma colleges and universities. The participants were those public and private institutions that had been approved by the Oklahoma State Board of Education to prepare physical education teachers. The purposes of the study were to determine the status of the physical education teachers education institutions in Oklahoma,

¹⁶Frank Delano Purnell, "A Comparative Examination of Two Accepted Curriculum Evaluative Tools Applied to Physical Education Programs in Selected State-Supported Colleges and Universities," unpublished doctoral dissertation, University of Oklahoma, Norman, Oklahoma, 1968, pp. 67-68.

to make recommendations for upgrading the weak program areas, and to determine if a significant difference existed between the programs of the public and private institutions.

The following conclusions were drawn from the findings of this investigation:

1. There is a definite variation among the institutions in Oklahoma as to the quality of their undergraduate physical education teacher-education programs as shown in this study.

2. Several institutions, because of the size of their staffs, teaching facilities, allocation of funds, and various institutional objectives, are not adequately prepared to offer an undergraduate teacher-education program in physical education of the caliber suggested by the authorities in this field.

3. There is not a significant difference between the programs of the public and private institutions in Oklahoma that prepare physical education teachers.

4. The top five schools in this study indicated strong and weak points in all score card areas, but their present programs can be upgraded to the point of adequacy suggested by this study.

5. Institution-wide and intra-departmental annual evaluation is a process that is not generally utilized; therefore, the actual status of the previous physical education teacher-education programs was only a matter of conjecture prior to this study.

6. Institutional status and departmental status are falsely reinforced by accrediting organizations that conduct periodic evaluations but seldom withhold accreditation.

7. Private schools generally have fewer volumes in their libraries, fewer facilities, and fewer staff members than public schools of comparable enrollment.

8. The institutions' health service programs are evident in name only in most public and private institutions. This should be an item of major concern.

9. Most of the schools in the study had less than 200,000 volumes in their libraries. This is considered to be inadequate.

10. In general, indoor and outdoor facilities are not adequate in quality or quantity to permit a comprehensive program of physical education.

11. The foundation science curricula are completely inadequate in breadth or depth to furnish students with a working knowledge in this area or to qualify them for post graduate work in physical education.

12. Student admissions requirements, institutional and departmental, are maintained at a minimal level and do not differentiate colleges from universities.¹⁷

Miller analyzed men's physical education programs in Texas state-supported colleges and universities offering the bachelor's and master's degrees in an attempt to (1) determine the status of the physical education program of each state-supported

¹⁷Charles Richard Buck, "An Evaluation of the Undergraduate Professional Preparation Programs in Physical Education in Oklahoma Colleges and Universities," unpublished doctoral dissertation, University of Arkansas, Fayetteville, Arkansas, 1968, pp. 139-141.

college and university in Texas, and (2) provide each institution with the necessary data for the purpose of self-evaluation.

The following findings are based upon the results of the analysis of data:

1. There is a definite relationship between size of institution and program offerings, due to facilities. An example of this relationship is most observable between the largest and smallest of the institutions studied.

2. Membership of physical education instructors in professional organizations was generally low. Most coaches, serving in a dual position, held memberships only in coaching associations.

3. Attendance at professional meetings by physical education instructors was also low. This was true for both the sectional and national level.

4. The work load of the physical education staff, in most cases, was above the average instructor's work week.

5. A wide variety of activities were offered to students in the physical education service program. Offerings were limited in the aquatic areas in three cases, due to lack of facilities.

6. The rank and salaries of physical education instructors were generally in line with those of other faculty members. However, this was not true in the case of the coaching staff.

7. Four institutions of the seven programs analyzed offered a comprehensive program, leading to both the master's and the doctor's degrees. These programs were all above average in scope.

8. The professional preparation of all male physical education instructors employed by the seven institutions was very good.

9. With the exception of one college, overall indoor facilities were considered very good and, with the completion of planned facilities, should be excellent.

10. Two universities have exceptional corrective and research equipment and another university has plans and funding available with which to improve this area. Four institutions are poorly furnished with these facilities.

11. With the exception of microcards and microfilms, library resources of all institutions were generally very good, and in some cases were considered to be excellent.¹⁸

Wiseman examined the undergraduate professional preparation programs in physical education for men and women in selected colleges and universities in New England. Specifically, the problem was to study and compare the total, area (10), and sub-area (40) scores of institutions as determined by their conformance to the standards of A Score Card for Evaluating Undergraduate Professional Programs in Physical Education by Karl W. Bookwalter and Robert J. Dollgener.

¹⁸Carl R. Miller, "An Analysis of Men's Physical Education Programs in Texas State-Supported Colleges and Universities Offering the Bachelor's and Master's Degrees," unpublished doctoral dissertation, North Texas State University, Denton, Texas, 1969, pp. 101-102.

Findings in the study, according to average attainment (75 percent of 1,000 points), were as follows:

1. Institutions from Massachusetts met more of the standards of the score card than institutions from other states in New England.
2. Private-supported institutions scored higher than state-supported institutions.
3. Institutions with university status scored higher than other institutional types.
4. Institutions with enrollments greater than 10,000 students scored higher than other enrollment types.
5. Institutions having departments within a division or school scored higher than institutions having departments within the total.¹⁹

The evidence indicated there were variations among the professional preparation programs being offered to men and women in New England. These differences were found with regard to institutions, between and within states, by financial support, by institutional and enrollment types, and by organizational structure. Incorporated within this structural hierarchy were variations within total, area, and sub-area scores.

¹⁹Douglas Carl Wiseman, "A Critical Evaluation of Undergraduate Professional Preparation in Physical Education for Men and Women in Selected Colleges and Universities of New England," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1970, pp. 233-235.

Summary

Through a review of the literature, it was determined that an evaluation of the professional preparation program in physical education has been and is of major concern to authorities in the field. Numerous studies involving the use of several instruments including check lists, questionnaires, case studies, instruments requiring narrative responses by accrediting agencies, and score cards have been surveyed. The most frequently used instruments were check lists and questionnaires.

The trend in more recent studies has been to put a value on attainment, or the lack of attainment, in areas of the physical education program, according to preconceived standards.

The Bookwalter-Dollgener Score Card listed the following criteria for weighting score card areas and items:

1. Cruciality or indispensability
2. Direct relationship to the program and its purpose
3. Annual cost
4. Original cost
5. Difficulty to obtain and retain
6. Objectivity and/or accuracy of information
7. Number of sub-areas and items

8. Weight or evaluate proportions to the magnitude or number
9. Provisions for crediting partial compliance
10. Item discrimination²⁰

Further, the Bookwalter-Dollgener Score Card was the only instrument found that would evaluate the following ten basic areas: (1) General Institutional and Departmental Practices, (2) Staff Standards, (3) Curriculum Policies and Practices, (4) The Teaching Act, (5) Service Program and Extended Curriculum, (6) Student Services, (7) Library-Audio-Visual, (8) Supplies and Equipment, (9) Indoor Facilities, and (10) Outdoor Facilities. These areas of the score card were supported by the literature.

²⁰Robert J. Dollgener, "A Critical Appraisal of a Selected Score Card for Evaluation of Undergraduate Professional Programs in Physical Education," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1965, pp. 207-212.

CHAPTER III

METHODS AND PROCEDURES

Introduction

The purpose of this chapter is to explain the procedures that were utilized and to discuss the data gathering and analysis of this study. Included are descriptions of the instrument, pilot application, administration of the score card, and the procedures for analysis of the data.

Instrument

The data-collecting instrument was a score card developed by Bookwalter and Dollgener in 1965. The score card is organized under ten major categories with sub-areas under each major heading. Each sub-area has up to twenty-five questions which have appropriate response-type answers with weighted values. The sub-areas are weighted according to the importance the authors, Bookwalter and Dollgener, deemed necessary.

The score card evaluates the professional preparation program in physical education in terms of average attainment. Therefore, the institutions' attained scores were viewed as

meeting 75 percent of the total possible score of 1,000 to be considered average; those below were viewed as below average, and those institutions above 750 points were considered above average.

The general headings used in the Bookwalter-Dollgener Score Card are:

- I. General Institutional and Departmental Practices
- II. Staff Standards
- III. Curriculum Policies
- IV. The Teaching Act
- V. Service Program and Extended Curriculum
- VI. Student Services
- VII. Library-Audio-Visual
- VIII. Supplies and Equipment
- IX. Indoor Facilities
- X. Outdoor Facilities

The score card was validated by a pilot administration of the card to a sample of fifteen colleges and universities selected from the state of Indiana. They were classified by enrollment, stated purpose, financial support, and organizational structure; more than 95-percent agreement was attained concerning content and structure of the instrument. The

reliability of the score card was determined on the basis of internal consistency. Validity coefficients between this score card and each of the rankings were .700 or better. Using the Pearson product moment correlation, the reliability coefficient was .661 between the score card and each institutional ranking. The corrected correlation using the Spearman Brown prophecy formula was .796. "Recent studies of internal consistency between chance halves of the sub-areas (twenty each) have elicited correlation coefficients of from .79 to .85."¹ Bookwalter states,

If other doctoral candidates, other groups in professional physical education would care to attack similar studies, I would gladly cooperate with experience, source material, score cards, raw data sheets, procedures, findings, and norms.²

Pilot Application

A pilot application of this score card was conducted at one institution not included in the final study. The purpose of

¹Karl W. Bookwalter, "How Does Your Professional Physical Education Program Rate?" paper read at the Midwest District Association for Health, Physical Education and Recreation, Milwaukee, Wisconsin, March 9, 1968, p. 1.

²Karl W. Bookwalter, "Undergraduate Professional Physical Education, Its Standards, Status, and Circumstances, The Physical Educator, XXVI (October, 1969), p. 103.

the pilot application was to determine the most desirable technique of administering the score card, to determine economical administrative procedures, and to prevent any possible misunderstanding of question and procedures on the part of those being interviewed.

The results of the pilot administration revealed a need for the investigator to personally visit and interview the librarian, student housing director, health service director, admission personnel, teacher placement officer, and the director of audio-visual materials. These were the areas in which the chairmen of physical education departments would be least familiar.

Administration of the Score Card

The first step involved in the administration procedure was to secure the cooperation of the Chairman of the Department of Physical Education of each of the fourteen institutions selected to participate in the study. Permission was obtained by writing a letter to the chairman of the physical education department of the selected institutions, in advance, stating the nature of the study and requesting an interview date when a visit to the campus would be permitted. Also, the letter was endorsed by the investigator and his minor professor. A

copy of this letter is found in Appendix A. Within each letter to the department chairman, a self-addressed postal card was enclosed to get confirmation on dates requested for the interview. A copy of this postal card is found in Appendix B.

At each institution the existing conditions, practices, policies, and facilities were assessed and recorded in the appropriate space for each item of each area within the score card. The investigator arrived at each institution the day before the interview was scheduled. Either before or after the interview with the chairman of the physical education department, library personnel were interviewed to determine library practices and policies. The card catalogues in the libraries of the respective institutions were reviewed as to the number, kind, and recency of physical education books and periodicals available to students. Also, interviews were conducted with other administrative personnel, such as the admissions director, placement personnel, health service personnel, housing personnel, librarian, and director of audio-visual materials.

Procedures for Analysis of Data

After the data were collected for each item of the score card, the area total scores were obtained by adding the sub-area scores, and the total score for the institution was obtained by adding the sums of the scores made in each area. This is the procedure appropriate to the Bookwalter-Dollgener instrument. These scores were transferred to a recording form. A copy of the recording form is in Appendix C. Institutions were randomly assigned a number for anonymity.

Area raw scores were changed to percentages by the following formula: $\text{obtained score} / \text{possible score}$. The area score results were ranked from high to low by percent of attainment in order to analyze and compare the data. The institutions were ranked on the basis of total scores according to the percent of attainment. Each of the ten areas was ranked on the basis of percent of attainment. Suggestions for improving the quality of programs were derived from these rankings.

Rank order correlations of the sub-areas of the score cards were computed to show the relationship or lack of relationship of each of the ten areas to the total institutional scores. Rank order correlations of each of the ten areas of

the score card to the total attained scores were computed by means of the Spearman's Rho technique. When the ranks are substituted for the area scores and score card total scores, the requirement for independence from specific measurement units, such as area scores and total scores earned on the score card, can be met. When the area scores and score card total scores are expressed in terms of ranks, the relative standings of the area scores and institutional scores become independent of any system of units.³

³Kenneth R. Hammond, James E. Householder, and John N. Costellow, Introduction to the Statistical Method (New York, 1970), 151-152.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

This study was designed to determine the status of the undergraduate professional preparation programs in physical education at selected Texas colleges and universities. The evaluative instrument for this study, A Score Card for Evaluating Undergraduate Professional Programs in Physical Education (Revised Edition), was formulated and validated for this specific purpose by Bookwalter and Dollgener.

The analysis of the data was accomplished by calculating the Spearman Rank Order Correlation for area scores and total scores for the score card. The percent of attainment was calculated by dividing the area attained scores by the area possible point totals.

An instrument was mailed to each participating institution at least two weeks prior to the visit and interview. Upon the arrival of the investigator at each site, the investigator had a minimum of three hours to observe and assess the indoor and outdoor physical education facilities. The chairman of physical

education was interviewed in order to satisfy the statements pertinent to the area of physical education. Other interviews were conducted with the directors of housing, placement, guidance, health services, teacher education, and the library in order to gather data relevant to those portions of the score card. The interviews required an average of fifteen hours on each campus to complete this evaluation. Of this time, three hours were needed to interview each chairman of the physical education department.

After the completion of the fourteen interviews, the score cards were collected and the scores recorded on the recommended recording form. The scores were tabulated and a total was obtained for each sub-area by summing the raw scores in each area.

The raw scores for each institution were used to determine percent of attainment for each sub-area and score card. The attained percents were determined for each institution and for the ten sub-areas of the score card by dividing the total possible points obtainable into the number of points acquired by each school on the instrument. These data (percent of attainment) were used to determine the following: (1) the rank order of the professional preparation programs in physical education

in Texas; (2) the above average, average, and below average programs as determined by the score card (75-percent attainment represents an average program as determined by the Bookwalter-Dollgener Score Card); (3) the status of undergraduate professional preparation in physical education in the state-supported colleges and universities in Texas; and (4) the Spearman Rank Order Correlation as applied to each of the ten areas of the score card and to the total score card.

The total number of possible points on the score card was 1,000 points. Any discussion on total scores is described in terms of percent of 1,000 points attained.

The rank order of the fourteen participating institutions is shown in Table I. The institutions accomplishing the criterion score of 75-percent attainment established for the score card are shown.

The mean percent of attainment for the fourteen institutions was 77.5. The mean was determined from a high attained score of 86.1 percent to a low attained score of 62.1 percent, yielding a range of 24.0; 71.5 percent of the institutions had a score above the mean of 77.5 attainment, and 28.5 had a score below the mean.

TABLE I

RANK ORDER OF FOURTEEN SCHOOLS BY PERCENT OF ATTAINMENT
AS MEASURED BY THE BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent of Attainment
1	13	86.1
2	14	82.5
3	10	82.2
4	2	82.1
5	9	81.1
6	1	80.1
7	12	79.0
8	3	78.2
9	5	77.5
10	6	76.9
11	8	73.5
12	4	73.4
13	7	71.4
14	11	62.1

Mean = 77.5

The relationships between the ranks achieved by each institution on the ten areas of the score card and the ranks attained on the total score card are shown in Table II.

These data reveal that Area VIII, Supplies and Equipment, had the highest correlation with the total score card, with a rho of .909. A rho of .052 is a high relationship and a rho of .052 is a low relationship.

TABLE II
CORRELATION OF THE TOTAL SCORE CARD WITH THE TEN
SUB-AREAS OF THE BOOKWALTER-DOLLGENER
SCORE CARD

Title of Sub-Area	Rank	Rho
Supplies and Equipment	1	.909
Library-Audio-Visual	2	.902
Outdoor Facilities	3	.811
Indoor Facilities	4	.790
Staff Standards	5	.784
General Institutional and Department Practices	6	.737
The Teaching Act	7	.719
Service Program and Extended Curriculum	8	.527
Student Services	9	.174
Curriculum Policies and Practices	10	.052

General Institutional and Departmental Practices

The general institutional and departmental practices constitutes Area I of the score card. The following are the sub-areas: (A) General Policies, (B) Professional Affiliations and Accreditation, (C) Admissions, and (D) General Departmental Practices.

Table III shows the rank order of the institutions by their percent of attainment in Area I. The highest possible score in Area I was eighty points. The highest percent attained for this area was 83 percent, and the lowest percent attained

TABLE III

ATTAINMENT FOR GENERAL INSTITUTIONAL AND DEPARTMENTAL
PRACTICES AS MEASURED BY THE BOOKWALTER-
DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Areas Percent of Attainment			
			A	B	C	D
1	9	83	100	100	40	100
2	2	81	91	100	40	100
3.5	13	80	87	100	40	100
3.5	14	80	96	100	41	91
5.5	1	78	91	100	40	86
5.5	5	78	91	100	31	100
8	3	77	79	100	50	86
8	7	77	87	100	31	100
8	10	77	87	100	31	100
11	6	75	83	100	31	96
11	8	75	79	100	36	96
11	12	75	91	100	40	77
13.5	4	71	79	100	36	81
13.5	11	71	79	100	36	81

Mean = 77.0

A - General Policies

B - Professional Affiliations and Accreditments

C - Admission

D - General Departmental Practices

General Policies

The first sub-area A, General Policies, shows that 100 percent of the institutions scored above the 75-percent attainment criterion for this study. Overall strengths were shown by institutions having a well-formulated statement of institutional

aims and objectives with these being published and readily available. Weaknesses in this area were shown by the institutions' lack of student representation in departmental and institutional policy making.

The second sub-area B, Professional Affiliations and Accreditation, shows that all institutions scored above the criterion of 75-percent attainment. The participating institutions were accredited by the Texas Education Agency, Southern Association for Accreditation for Schools and Colleges, and the National Council for Accreditation of Teacher Education. All of the institutions were members of national, state, and sectional athletic associations.

The third sub-area C, Admissions, was the weakest sub-area because the institutions did not use two of the four criteria used in the instrument. Therefore, all schools fell below the 75-percent criterion. Consistently weak responses were given concerning the items dealing with the students' intelligence quotient and high school class rank as an admissions requirement. Oral or written English examination received a weak response.

The fourth sub-area D, General Departmental Practices, shows that 100 percent of the institutions scored above the

75-percent criterion. There were strong responses in the following sub-areas: (1) statements of departmental objectives being published and available, (2) a comprehensive set of objectives, and (3) established departmental committees giving continuous considerations to curriculum needs. The weakest response was the method of eliminating unqualified students from the professional program. All of the schools utilized academic standing and general health as criterion for eliminating unqualified students from their professional programs.

Staff Standards

Area II deals with Staff Standards and Table IV gives the rank order of the institutions by their percent of attainment. The highest possible points in staff standards is 120 points.

Ten institutions exceeded the 75-percent criterion in Area II. The mean attainment was 76.9. The highest percent attained was 95 percent and the lowest percent was 63 percent, which resulted in a range of 32 points.

Sub-area A, Number, reveals that 35.7 percent of the institutions scored above the 75-percent criterion of attainment for this section. The strongest categories were in

TABLE IV
ATTAINMENT FOR STAFF STANDARDS AS MEASURED BY THE
BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment				
			A	B	C	D	E
1	14	95	93	100	100	100	91
2	9	86	80	100	85	92	86
3	10	85	73	85	100	92	86
4	1	83	76	95	90	84	81
6	2	79	73	85	70	92	81
6	12	79	73	95	70	89	86
6	6	79	73	100	80	80	72
8	5	78	76	100	70	73	81
9	13	77	86	90	60	65	90
10	3	75	46	85	100	73	90
11	8	70	46	85	85	92	59
12	4	65	50	100	55	61	72
13	7	63	60	80	50	61	72
14	11	63	66	55	100	49	59

Mean = 76.9

A - Number

B - Qualifications in Their Major Field

C - Experience

D - Teaching Load

E - Professional Status

the areas of qualifications in their major, experience, and professional status. The weakest areas were teaching loads and number of professional staff personnel.

Sub-area B, Qualification in Their Major Field, reveals that 92.8 percent of the institutions scored above the criterion. Thirteen schools scored above 75-percent criterion

in the category related to the number of their staff with the master's degree. Twelve institutions, or 85.7 percent had a person with the doctor's degree as chairman of the physical education department. Also, 85.7 percent, or twelve institutions, had at least seven staff members with the doctor's degree.

In the Sub-area C, Experience, eight institutions scored above the 75-percent criterion. There was a diversity of institutions from which professional-program faculty members received their degrees. The category of in-service training received 50 percent, which indicates a low percent, but most schools had some form of in-service education for the physical education staff members.

Sub-area D, Teaching Load, showed 57.1 percent of the schools scoring above the suggested criterion and only six of the schools scored below the criterion. In the category number of hours per week, 57.1 percent of the schools scored above the criterion, which indicates an unbalanced teaching load. Of the institutions surveyed, 98.2 percent had equality in the area of assigning co-curricular duties to staff members. The trend in the category of student teaching assignments did not present a problem because in most instances student teaching

assignments were either handled by the School of Education or by a joint endeavor.

In the Sub-area E, Professional Status, nine of the fourteen schools scored the 75-percent criterion for this sub-area. The trend for staff members to participate and hold office in various state, regional, and national professional organizations was outstanding. All schools showed evidence that there was equality with other departments in staff ranks, salaries, and promotions. A general strong point was shown in the area of research and publication, mainly because of the staff's participation in professional organizations and the fact that all of the participating schools offered graduate degrees.

Curriculum Policies and Practices

Table V shows the rank order of the fourteen institutions by their percent of attainment in the area of curriculum policies and practices. The total points in this area is 130 points.

Four institutions scored the 75-percent criterion for this area. The high attainment score in terms of percent was 83 with a low attainment score of 61 percent, which yielded a range of twenty-two points.

TABLE V

ATTAINMENT FOR CURRICULUM POLICIES AND PRACTICES AS
MEASURED BY THE BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment				
			A	B	C	D	E
1	13	83	85	77	72	93	81
2	9	81	75	83	72	26	87
3	4	77	75	38	72	90	93
4	11	75	75	61	63	90	78
5	7	74	64	83	72	70	84
7.5	10	73	60	66	90	70	78
7.5	8	73	78	50	63	80	81
7.5	5	73	75	66	81	53	87
7.5	12	73	57	55	81	83	84
10	14	72	71	55	64	93	66
11	1	71	64	38	63	86	87
12	2	68	71	61	54	53	93
13	3	66	60	50	63	70	81
14	6	61	53	44	72	60	71

Mean = 72.8

A - General Education

B - Foundation Sciences

C - General Professional Education

D - Special Professional Theory

E - Special Professional Techniques

Sub-area A, General Education, has seven categories. Six institutions scored below the 75-percent criterion. Fourteen institutions scored adequately in terms of number of semester hours that must be completed in general education. This indicated that these institutions required an adequate number of semester hours in the areas of natural and physical science,

mathematics, social science, and humanities. Also, the general education requirements were adequate enough to provide an opportunity for a second teaching field.

In the Sub-area B, Foundation Sciences, three institutions scored the 75-percent criterion of attainment. There was evidence of weakness in the number of semester hours required in the foundation sciences.

Sub-area C, General Professional Education, revealed that four institutions scored above the 75-percent criterion. Strength was shown in the number of semester hours required in general education courses, psychology of learning, and student teaching or field work. In the area of general professional education, all of the institutions reported a wide range of course offerings.

Sub-area D, Special Professional Theory, revealed that seven institutions offered theory courses above the average suggested number of semester hours required by the instrument.

In Sub-area E, Special Professional Techniques, twelve institutions offered a variety of activity and technique courses. Recreational sports, individual and team sports, gymnastics, rhythmic, and swimming were also offered in sufficient variety.

The Teaching Act

Table VI gives the rank order of the fourteen schools by their percent of attainment. The area had a total of ninety possible points.

TABLE VI

ATTAINMENT FOR THE TEACHING ACT AS MEASURED BY THE
BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment			
			A	B	C	D
1	9	91	100	100	85	82
2	10	85	90	94	85	82
3.5	5	84	70	94	82	94
3.5	14	84	95	100	71	82
5	3	83	95	83	80	76
6	6	81	85	88	71	88
7	7	78	90	94	62	82
8	2	76	80	100	65	70
9	1	75	65	100	65	82
10	13	74	65	100	60	88
11	8	72	85	94	54	70
12	12	71	60	100	57	82
13	4	70	65	94	60	70
14	11	44	50	55	37	41

Mean = 76.2

A - Personality of the Instructors

B - Planning

C - Teaching Techniques

D - Evaluation

Nine institutions had scores exceeding the recommended 75-percent criterion. The scores ranged from 85 percent to

44 percent, which revealed a range of forty-one points. The mean for this area was 76.2

Sub-area A, Personality of the Instructors, revealed an excellent response. Eight institutions indicated that their staffs were represented by individuals who were emotionally mature, knew their subject, had a sense of humor, understood students and their growth, were neat in appearance, and had clear, well-modulated speech.

Sub-area B, Planning, also received an excellent response with thirteen institutions attaining scores above the 75-percent criterion. Fourteen institutions responded that courses of study, syllabi, and course outlines were required and constantly revised.

In Sub-area C, Teaching Techniques, four of the institutions met the 75-percent criterion, which indicates that teaching techniques emphasized reiteration, synthesis, and interpretations; assignments were generally clear, definite, and of reasonable length and purposeful; and instructional techniques challenged the exceptional as well as the average student.

Sub-area D, Evaluation, revealed that ten institutions scored above the 75-percent criterion. Strengths were indicated through examinations given at regular intervals during

the semester. Also, the examinations were enhanced by preview and review, which made the examinations educational experiences in themselves. Ten of the institutions used self-evaluation and student-evaluation techniques as a departmental device to get information for self-improvement.

Service Program and Extended Curriculum

Area V, Service Program and Extended Curriculum, had ninety possible points. Table VII gives the rank order of the fourteen schools by their percent of attainment.

Twelve institutions had scores above the 75-percent criterion. The high score was 83 percent and the low score was 70 percent, which yields a range of thirteen points. The mean was 80.2.

Sub-area A, Service Program, had a good response from the institutions. Twelve institutions scored above the 75-percent criterion. All programs evidenced an adaptive physical education program. Thirteen schools did not permit veterans, members of ROTC, the band, and athletes to substitute these activities for the physical education requirement. The number of days per week and number of years required in physical education showed a strong response. The programs met three days

per week and generally the required program lasted two years. All schools had a program of orientation to review the policies, purposes, and opportunities in the service program.

TABLE VII

ATTAINMENT FOR SERVICE PROGRAM AND EXTENDED CURRICULUM AS MEASURED BY THE BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment			
			A	B	C	D
1	5	84	80	96	90	64
3.5	2	83	76	80	85	100
3.5	7	83	86	76	85	85
3.5	12	83	86	76	95	71
3.5	14	83	70	56	95	73
6	3	82	83	88	85	64
8	1	81	86	96	55	78
8	9	81	86	80	85	64
8	13	81	76	84	75	92
10.5	6	80	80	84	75	78
10.5	10	80	73	100	65	78
12	4	78	76	84	80	71
13	11	74	76	61	95	64
14	8	70	66	80	75	50

Mean = 80.2

A - Service Program

B - Intramural Program

C - Intercollegiate Athletics

D - Recreational Activities

Sub-area B, Intramural Program, showed responses indicating that intramurals was recognized as a part of the physical education department in thirteen schools and thirteen schools had

a person devoting full time to the program. The strength of the intramural programs was revealed in the number of students participating in the programs. Generally, from 50 to 74 percent of the students showing an interest in intramurals participated.

Another strength was that students and staff worked cooperatively in formulating intramural policies. At least one half of the intramural sports were taught in the service program. All schools require intramural participants to have a health examination, but this examination was usually the same one required for entrance to the institution.

Sub-area C, Intercollegiate Athletics, indicated a good response from thirteen of the participating schools. Thirteen schools met the 75-percent criterion. The category dealing with health examinations was required for all varsity athletes. All schools provided a school physician for its athletic participants. Fourteen schools provided at least one full-time certified athletic trainer for their athletic teams. The varsity athletic programs had at least seven team, individual, and dual sports in which they participated. Thirteen schools' intercollegiate athletic programs were financed from the general fund. Two school intercollegiate programs

were financed strictly from gate receipts. They also were the two institutions in this study with the highest student enrollment.

Sub-area D, Recreational Activities, indicated that the institutions provided extracurricular activities and the department of physical education provided opportunities for coeducational activities in at least eight activities.

Student Services

Table VIII shows the rank order of the participating schools and their percent of attainment in the area of student services. The area of student services had 120 possible points.

The Sub-area A, Recruitment, Selection, Guidance, and Counseling, revealed that eleven schools scored the suggested 75-percent criterion. There was evidence of definite planning and follow-up in this area. All of the schools kept a cumulative record for each student and used these records in their counseling programs. Each school had above average financial aid programs in terms of scholarships, student loan programs, and employment to aid their students.

TABLE VIII

ATTAINMENT FOR STUDENT SERVICES AS MEASURED BY THE
BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment				
			A	B	C	D	E
1	13	84	75	94	50	100	83
2	10	82	90	77	57	90	90
3	12	81	95	72	50	100	86
4	5	80	90	66	85	95	80
5	8	78	75	61	71	95	93
6	4	75	90	50	42	100	96
7	1	74	95	75	50	80	66
8.5	6	72	70	75	42	90	73
8.5	14	72	90	55	57	95	73
10.5	7	70	70	80	42	70	73
10.5	11	70	100	61	64	85	56
12.5	2	65	90	41	42	90	70
12.5	9	65	90	58	35	75	63
14	3	62	70	47	35	90	70

Mean = 73.5

A - Recruitment, Selection, Guidance, and Counseling

B - Health Services

C - Housing for Students

D - Placement

E - Follow-up and Inservice Education

Sub-area B, Health Service, revealed that only six institutions scored the 75-percent criterion of attainment for this area. The items receiving strong responses were sufficient working agreement with local hospitals to handle emergencies and hospitalization. All of the participating schools had regular office, visitation hours, and emergency services. Six

health centers were adequately equipped, serviced and maintained. Ten health centers had full-time physicians on duty, and three health centers had sufficient number of hospital beds (one bed for each 751 to 1,000 students). The weak responses were in the areas of remedial tests and full-time physicians in proportion to student body. Twelve institutions provided insurance plans for a fee to their students.

In Sub-area C, Housing for Students, of the five items listed, all institutions scored below the 75-percent criterion. This was due to the fact of changing philosophies of institutions to govern off-campus housing for students in the areas of approval, inspection, married student housing, and moderate range of cost to suit individual needs.

Sub-area D, Placement, had an excellent response; all fourteen of the participating institutions scored above the 75-percent criterion of attainment. This office was centrally located, actively supported graduates seeking employment, announced interviews, surveyed placement opportunities, and cooperated with local and state professional placement agencies. The results of the score cards showed that the faculty cooperated with the placement office.

In Sub-area E, Follow-up and Inservice Education, seven institutions scored the 75-percent criterion of attainment. Most of the physical education departments or schools did not have a follow-up program. Follow-up was carried out through the education department or teacher education division. Inservice education programs were conducted by all participating schools through graduate courses, clinics, work shops, research, and committee involvement. The inservice education findings were entered on graduate cumulative records.

Library-Audio-Visual

Table IX indicates the rank order of the institutions by their percent of attainment in library, audio, and visual aids. The possible point total for this area was ninety points. Thirteen institutions scored the 75-percent criterion or above. The highest score was 97 percent and the lowest was 63 percent, yielding a range of thirty-four points.

This area received a comparatively high response to the other areas because library equipment, holdings, and facilities were up to date, and the staff personnel cooperated with students and the faculty.

TABLE IX

ATTAINMENT FOR LIBRARY-AUDIO-VISUAL AS MEASURED BY
THE BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment						
			A				B		
			1	2	3	4	1	2	3
1	13	97	100	100	100	100	94	100	100
2	14	96	100	86	88	57	80	100	100
3	9	94	86	87	100	92	90	100	100
4	12	91	80	100	100	92	70	100	93
5	3	88	93	87	100	71	70	90	100
6	5	87	86	87	100	92	80	90	81
7	2	86	86	87	76	78	80	100	100
8	6	85	80	87	94	85	70	90	87
9.5	1	84	73	100	76	78	70	100	100
9.5	10	84	86	87	88	50	80	100	100
11	7	80	86	87	88	92	80	60	62
12	8	77	80	87	94	78	60	60	75
13	4	76	86	100	88	78	40	50	81
14	11	63	73	75	58	64	60	50	62

Mean = 84.8

A - Library

1. General Features
2. Library Service
3. Books and Pamphlets
4. Periodicals and Annuals

B - Audio-Visual Aids

1. General Features
2. Instructional Materials
3. Equipment and Facilities

The Sub-area A1, General Features, had a good response. Twelve institutions scored at the 75-percent attainment or above. The area that showed weakness was in the area of departmental libraries available and services. However, four

of the participating schools had sections in their main libraries devoted to the physical education professional program, a kind of curriculum library. The general features of all the libraries were adequate. All of the schools had either new or renovated library buildings properly equipped.

In Sub-area A2, Library Services, fourteen schools scored the 75-percent attainment criterion. This sub-area received the highest rating of the seven categories, with 100 percent being the highest and 75 percent the lowest. These services included helpful staff, speed and pleasant service, inter-library loans, copy and microfilm services, and some instruction in the use of the library.

Sub-area A3, Books and Pamphlets, indicated a good response; thirteen institutions scored above the 75 percent attainment. All of the schools scored well on the number of volumes in the library, with all of the institutions having more than 200,000 volumes. There was an adequate number, recency, and variety of general professional and special professional holdings. Eight schools had a section devoted to high school curriculum materials such as curriculum guides, textbooks, and audio-visual aids. Thirteen schools listed an adequate number of periodicals listed on the score card.

The area of Audio-Visual Aids consisted of three categories. Ten schools scored the 75-percent attainment.

The Sub-area B1, General Features, showed that the department budget, service, and academic offerings were adequate. In general, the responsibility of managing and maintenance was assigned as an extra duty.

In Sub-area B2, Instructional Materials, ten schools reached the 75-percent attainment. The schools that accomplished the criterion of attainment had an adequate supply of films, slides, and projectors in the areas of rhythmic, sports, and gymnastics. All schools indicated an adequate number of tape and wire recorders available.

Sub-area B3, Equipment and Facilities, had a good response; twelve schools reached the 75-percent criterion of attainment. The schools failing to accomplish the criterion failed to have quiet rooms for reviewing films and tapes. All departments indicated that they had sufficient variety of audio-visual equipment available.

Supplies and Equipment

This area was divided into three sub-areas. Thirteen institutions attained the 75-percent criterion. It was possible to score eighty points in this area. The highest score was 97 percent and the lowest score was 50 percent. Table X

shows the rank order of the participating schools with reference to their attainment.

TABLE X

ATTAINMENT FOR SUPPLIES AND EQUIPMENT AS MEASURED BY
THE BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment		
			A	B	C
1	2	97	100	96	97
2	13	95	92	96	97
3	12	93	84	100	92
4.5	1	90	100	82	92
4.5	5	90	100	85	86
6	10	89	84	93	94
7.5	3	87	100	79	89
7.5	6	87	92	86	86
9	9	86	92	75	92
10	14	85	92	72	92
11.5	4	81	76	82	81
11.5	8	81	76	80	78
13	7	70	92	79	55
14	11	50	61	37	55

Mean = 84.3

A - General Practices

B - Supplies

C - Equipment

The first Sub-area, General Practices, indicated that fourteen schools scored above the 75-percent criterion, which indicates that those schools felt that their budgets were adequate for supplies for the professional, intramural, inter-collegiate, and recreation programs. The school scoring below

the criterion felt that their budget was inadequate. A general trend existed in that all institutions ordered equipment through a central purchasing agent in the fiscal office of the college or university. Also, the institutions had equipment personnel to care for, check-out, and inventory equipment. Check-out procedures for staff and students varied from one school to the other in that check-out procedures ranged from no policy to very free and open policy for staff and students to check-out equipment for recreational purposes.

In the second sub-area, Supplies, relating to sports supplies, rhythmic supplies, and gymnastic supplies, twelve institutions attained the 75-percent criterion.

The twelve schools attaining the acceptable criterion indicated a more than adequate supply of equipment.

The items of equipment listed in this sub-area were archery, badminton, basketball, golf, softball, and volleyball. Of the institutions scoring the 75-percent criterion, eleven institutions had bowling facilities, squash courts, and handball courts. All schools had tennis facilities available on the campus.

In the category of rhythmic supplies, twelve schools had outstanding inventories in this category. The supplies were in

terms of amount of sheet music, records, tapes, and tape recorders available for instructional purposes.

The category of gymnastic supplies had a strong response from all schools. The supplies in this area were carbonate of magnesia, rosin, sand paper, and safety belts. All of the institutions reached the 75-percent attainment in this category.

Sub-area three consisted of heavy equipment and measurement and research equipment. The equipment was gymnastic equipment, weight lifting equipment, courts, standards and aquatics equipment. Twelve schools scored above the 75-percent criterion for this sub-area. One school had deficiencies in this sub-area, with very limited equipment. The swimming pool facilities in all schools were adequate and the equipment for water safety and instruction was also adequate.

The second category under sub-area three was measurement and research equipment. This category was very strong in thirteen schools. All of the equipment listed was in abundance, such as anthropometrical caliper, back and leg dynamometers, calculators, flarimometers and spirometers, mats and push-pull dynamometers, stadiometers and stop watches.

Indoor Facilities

Table XI reveals the rank order of the institutions by their percent of attainment in the area of indoor facilities. The highest possible points for this area was 110 points.

TABLE XI
ATTAINMENT FOR INDOOR FACILITIES AS MEASURED BY
THE BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment			
			A	B	C	D
1.5	2	95	100	87	95	100
1.5	13	95	85	96	95	100
3	1	93	85	96	88	100
4	3	89	85	100	76	100
5	14	86	77	96	69	100
6	10	76	100	91	64	72
7	9	75	84	87	62	81
8.5	4	71	69	82	69	65
8.5	12	71	77	87	62	72
10.5	6	68	69	78	50	84
10.5	8	68	69	100	54	63
12	7	63	76	52	54	75
13	5	58	69	78	38	65
14	11	51	100	61	17	69

Mean = 75.6

A - General Features

B - Administrative

C - Instructional-Recreational

D - Service

Seven institutions scored the 75-percent attainment of criterion for this area. Seven schools failed to score

adequately in the area in general, but all schools scored above the criterion in at least one of the four sub-areas. The mean was 75.6, with a high score of ninety-five points and a low score of fifty-one points.

Sub-area A, General Features, received the highest percent of attainment of the four sub-areas. Ten institutions scored above the 75-percent attainment in Area A. Safety and Sanitation registered higher than the category dealing with the availability of the school recreational facilities for community participation.

In Sub-area B, Administration, twelve institutions scored the suggested criterion of 75 percent or above. All schools had adequate office space, which was conveniently located. All schools registered adequate responses to the categories dealing with secretarial space, duplicating facilities, equipment and supply storage, adequate custodial space, and adequate and properly located ticket offices. The weak responses in Sub-area B were in the area of equipment drying rooms and their proximity to the dressing rooms.

Sub-area C, Instructional Recreation, registered the weakest response of the four sub-areas. Five institutions scored the 75-percent attainment for this sub-area. Of the

schools meeting the criterion of attainment for this sub-area, the following items were their strong areas: (1) departmentalized classrooms and laboratories, (2) adequate number of official handball and squash courts, (3) one special activity or combatives room, (4) recreational game room, (5) an adaptive or remedial physical education room, and (6) adequate instructional-recreational swimming pools.

The institutions that failed to score the suggested criterion did not provide for instructional recreation or they did not have physical plant to provide for these activities.

In Sub-area D, Service, eight institutions scored the suggested criterion of 75 percent of attainment. The strong response areas were the following: (1) toweling rooms for men and women, (2) locker rooms for men and women adjacent to the gymnasias, (3) properly equipped training room, (4) officials and faculty locker rooms, and (5) towel rooms with attendants.

Outdoor Facilities

Table XII lists the rank order of the participating schools by their percent of attainment in Area X. The possible point total in this area was ninety points. Six institutions exceeded the 75-percent criterion for this area, while eight schools failed to register adequate overall scores in the

TABLE XII

ATTAINMENT FOR OUTDOOR FACILITIES AS MEASURED BY
THE BOOKWALTER-DOLLGENER SCORE CARD

Rank	School	Percent Attainment	Sub-Area Percent Attainment			
			A	B	C	D
1	2	98	87	93	72	95
2	13	94	91	93	94	100
3	10	93	100	93	78	100
4	6	89	91	93	67	100
5	14	84	87	81	89	82
6	3	79	100	66	44	100
7	12	73	74	78	56	82
8	1	72	91	66	66	63
9	9	71	87	85	78	31
10	8	70	74	63	56	86
11	5	68	78	41	78	73
12.5	4	66	74	70	56	64
12.5	7	66	74	67	72	50
14	11	51	65	37	50	54

Mean = 76.7

A - General Features

B - Facilities for Service and Professional Technique Courses

C - Intramural Facilities

D - Intercollegiate Athletic Facilities

four sub-areas of Area X. The highest percent attained was 98 percent and the lowest percent attained was 51 percent, which yielded a range of forty-seven points. The mean for Area X was 76.7.

Sub-area A, General Features, had nine institutions to attain the 75-percent criterion, five institutions fell below

the criterion of attainment. The schools scoring above the criterion indicated that their activity courts and fields, maintenance, parking areas, outdoor fountain and toilets, and grounds were adequately maintained and effectively landscaped.

Sub-area B, Facilities for Service and Professional Technique Courses, reveals that seven institutions reached the 75-percent criterion for this area, while seven schools failed to score the criterion of attainment. All of the schools indicated that there was adequate area for hockey, soccer, softball, and volleyball. Archery and riflery areas were generally not fenced and banked. While most schools did not have an eighteen hole golf course, there was a golf course available for class instruction.

In the following activities, badminton, tennis, bowling, table tennis, and shuffleboard, eight institutions' score cards indicated a lack of adequate numbers of areas for instruction. Finally, all of the schools indicated that there was no conflict or problem concerning the use of the physical education facilities by the men, women, or other school organizations.

Sub-area C, Intramural Facilities, had five institutions to score the criterion of attainment. The schools failing to

score the criterion indicated weaknesses in the availability of adequately lighted sports areas for night intramural activities. Most schools had sufficient open areas for scheduling intramural activities. There was no conflict in scheduling by men's and women's intramural departments.

In the Sub-area D, Intercollegiate Athletic Facilities, eight schools scored the 75-percent criterion. One school did not play football, although they had a recognized program in intercollegiate athletics. The item dealing with the availability of a baseball diamond that meets conference standards received a favorable response from all but one institution, that school not playing baseball. All schools had a six- or eight-lane quarter-mile track as well as available fields for varsity use.

Summary of Findings

The score card used in this evaluation was considered comprehensive in the sense that it covered the areas which should be considered in the preparation of physical education teachers. This score card should not be considered final and complete in each area. But, the sub-areas of the score card should be considered important in any teacher education program.

In analyzing the total score card, it was found that the participating schools showed more overall strengths in professional preparation programs in physical education than weaknesses.

To summarize this chapter, comments were made about the strengths and weaknesses found in each of the ten sub-areas of the score card. Further, the overall attainment and correlations of the ten areas and their sub-areas were elaborated on.

The mean percent of attainment for all institutions studied was 77.5 percent of a possible 100 percent. The total percentages ranged from 86.1 percent to 62.1 percent, with a mean percent of 77.5 percent for all institutions.

The highest correlation between any area of the score card and the total score was Area VIII, Supplies and Equipment. The lowest correlation between any area of the score card and the total score was Area III, Curriculum Policies and Practices.

The highest intercorrelation between any two areas of the score card was between Area VIII, Supplies, and Area VII, Library-Audio-Visual. The lowest intercorrelation between any two areas of the score card was between Area VI, Student Services, and Area II, Staff Standards.

In Area I, which dealt with general institutional and departmental practices, it was found that in three of the four sub-areas all participating schools scored above the 75-percent criterion of attainment. The sub-areas were: (1) General Policies, (2) Professional Affiliations and Accreditation, and (3) General Departmental Practices. The area showing weakness in general was the sub-area dealing with admission. This weakness was shown because the institution did not specifically require intelligence quotients and oral or written English examinations for admissions.

In Area II, Staff Standards, the strengths were shown in the sub-areas dealing with qualification in their major, experience, professional status, and number of personnel with the master's and doctor's degree. The weakest sub-area was teaching load in terms of credit given for other institutional and departmental duties.

Area III, Curriculum Policies and Practices, showed overall weaknesses as measured by the score card. In the sub-area dealing with general education, most schools scored below the criterion of attainment. The weakness was in the number of semester hours taken in liberal arts and humanities for graduation. The sub-area dealing with foundation sciences

registered a low response. This sub-area required eighteen or more semester hours to score above the criterion of attainment. Also, the sub-area of general professional education was below the criterion, because the number of semester hours required. The sub-area dealing with special professional techniques received a strong response. This sub-area dealt with recreational sports, individual and team sports, gymnastics, rhythmic, and aquatic.

In Area IV, The Teaching Act, strengths were shown in the areas of personality of the instructor, planning (courses of study), syllabi, and course outlines prepared and kept up-to-date. In the sub-area dealing with teaching techniques, only four institutions registered at the criterion of attainment or above. This area dealt with assignments, explaining ambiguous aspects and development of student leadership, and utilization of students. Other areas showed average or above average compliance. Another strong area was evaluation. Ten schools scored above the criterion. This area dealt with examinations at regular intervals and preview and review of examinations as an educational experience.

In Area V, Service Program and Extended Curriculum, all schools showed strengths in the service program; this is the

required activity program in physical education. The intramural program responses were strong in terms of organization and participation by students. Also, students worked cooperatively with staff members on intramural committees. The intercollegiate athletics program registered above the criterion in thirteen schools. Two schools indicated that their intercollegiate program was financed mainly from gate receipts.

In Area VI, Student Services, it was revealed that strengths were in the areas of recruitment, selection, and guidance and counseling. The underlying areas were planning, counseling programs, financial aids, and cumulative records. The area of placement had an excellent response from all of the participating schools. The sub-areas were as follows: (1) Centrally Located Office, (2) Actively Supported Graduates Seeking Employment, (3) Announced Interviews, (4) Surveyed Placement Opportunities, and (5) Faculty Cooperation. The sub-area dealing with follow-up registered low in the department of physical education because the follow-up that was done was more specifically teacher education and extension services.

Area VII, Library-Audio-Visual, included such general features as its location, book check-out procedures,

courteous and helpful staffs, equipment, and facilities for student use. The area of library service revealed that all libraries at the participating schools were above the criterion of attainment. The areas were speed and pleasant service, inter-library loans, copy and micro-film services, and some instruction in the use of the library. The sub-areas dealing with books and pamphlets, and periodicals registered an average response in all of the schools. The area of audio-visual aids revealed that twelve schools had an adequate budget to purchase and maintain audio-visual materials. The area of instructional materials was above the criterion for ten schools. The instructional materials were films, slides, and projectors. In some cases the departments relied upon the learning resource centers at their institutions for audio-visual equipment and materials.

Area VIII, Supplies and Equipment, revealed that the general features were above the 75-percent criterion. The general features area included supplies in professional, intramural, intercollegiate, and recreational programs. Procedures for purchasing equipment was through a central purchasing agent. Equipment care, check-out, and inventory were adequate. Staff and students could check-out equipment for recreational use at twelve institutions. (The sub-area dealing with supplies

relates to sports, rhythms, and gymnastic supplies.) Twelve institutions scored the 75-percent attainment. In the sub-area of heavy equipment and measurement and research equipment, the heavy equipment was gymnastic equipment, weight lifting equipment, courts, net game standards, and aquatics equipment. Two schools showed weaknesses in this area with a limited amount of equipment. Swimming facilities were more than adequate in all schools.

The sub-area dealing with measurement and research equipment registered a strong response from all schools. The equipment included anthropometrical calipers, back and leg dynamometers, calculators, flarimometers and spirometers, mats, push-pull dynamometers, stadiometers and stop watches. All the schools had at least minimum equipment in this area, but one school had excellent equipment for measurement and research.

In Area IX, Indoor Facilities, twelve schools scored above the criterion of attainment. The sub-areas receiving the highest responses were safety, sanitation, adequate space for custodial and storage, adequate handball courts, recreational swimming pools, properly equipped training rooms, and officials and faculty locker rooms. The sub-areas receiving weak responses were recreational facilities for the community,

equipment drying rooms, instructional recreation, toweling rooms for men and women adjacent to the gymnasias, and towel rooms with attendants.

In Area X, Outdoor Facilities, nine schools scored above the criterion of 75 percent. The strong sub-areas were parking areas; outdoor toilets; ground landscaped; adequate hockey, soccer, and softball playing fields; and volleyball courts. Also, strength was shown in scheduling to prevent conflicts. The weaknesses were in the following sub-areas: availability of fencing and banking in archery and riflery; availability of an eighteen hole golf course; and availability of lighted sports areas.

Finally, it was apparent that the institutions failing to reach the 75-percent criterion of attainment had limited financial resources, which prevented a high level of attainment.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The major purpose of this study was to obtain information on the status of undergraduate professional preparation programs in physical education in state-supported colleges and universities in the state of Texas. The second purpose was to use the results of the study as a basis for making suggestions for the improvement of professional preparation programs in physical education.

In order to obtain the necessary information about the physical education programs, it was necessary to review the literature for the purpose of selecting an instrument for the evaluation. The Bookwalter-Dollgener Score Card, A Score Card for Evaluating Undergraduate Professional Preparation in Physical Education (Revised Edition), was the most appropriate instrument for this study. This instrument is designed to evaluate comprehensively and systematically the undergraduate professional preparation program in physical education.

The ten areas of the Bookwalter-Dollgener Score Card are as follows:

- I. General Institutional and Departmental Practices
- II. Staff Standards
- III. Curriculum Policies and Practices
- IV. The Teaching Act
- V. Service Program and Extended Curriculum
- VI. Student Services
- VII. Library-Audio-Visual
- VIII. Supplies and Equipment
- IX. Indoor Facilities
- X. Outdoor Facilities

This study was limited to the fourteen state-supported colleges and universities within the state of Texas which offer undergraduate professional preparation programs in physical education, and whose teacher education programs are accredited by the National Council for the Accreditation of Teacher Education.

The first step involved in the data collection process was to secure the cooperation of the chairman of the Department of Physical Education of the participating schools. Permission was obtained from all schools meeting the criterion

for selection. There were fourteen schools meeting the criterion. To assure institutional anonymity each institution was assigned a code number for identification purposes throughout the study.

At each institution the existing conditions, practices, policies, and facilities were assessed and recorded in the appropriate space on the score card. After the data were collected from each institution, area raw scores were changed to percentages and the area scores were ranked from high to low by percent of attainment. The Spearman Rank Order Correlation was computed to get the correlation between the ten areas and the ten areas with the total earned score.

This study contains the results from 100 percent of the population studied. The interview at each institution lasted a minimum of fifteen hours, and the personnel at each institution were cooperative and contributed willingly to the interviews.

Findings

The following research questions were answered based on the research findings.

1. Will the school with the highest number of points in the area of curriculum policies and practices also have the

highest number of total points on the Bookwalter-Dollgener Score Card?

The results of the study revealed that the institution scoring highest in the area of curriculum policies and practices also had the highest percent of attainment as measured by the Bookwalter-Dollgener Score Card.

2. Can the total points attained by schools in the areas of staff standards, curriculum policies and practices, student services, and indoor facilities be utilized in evaluating the professional programs on the Bookwalter-Dollgener Score Card?

The data indicate that the institution with the highest number of combined total points in the aforementioned four areas did acquire the highest percent of attainment.

3. Do the schools with the largest enrollments have the highest total score on the Bookwalter-Dollgener Score Card?

The results revealed that schools with large enrollments (enrollments over 18,000) do score high on the Bookwalter-Dollgener Score Card. The results further revealed that schools with enrollments from 6,000 students to 13,000 students also scored well above the 75 percent of the criterion for this study.

4. Which of the ten areas on the Bookwalter-Dollgener Score Card consistently yields the highest percent of attainment?

The results revealed that the Service Program and Extended Curriculum consistently yielded high percents of attainment.

5. Will schools with the highest percent on the Bookwalter-Dollgener Score Card in the area of curriculum policies and practices also consistently earn the highest percent attained in the area of student services?

The results revealed that two out of the four institutions ranking highest in total attainment also ranked highest in student services. To be more specific, the highest ranking school also ranked highest in student services; the second highest overall ranked number nine in student services; the third highest overall ranked second in student services, and the fourth highest overall ranked number twelve in student services. The sub-areas under student services are as follows: (1) Recruitment, Selection, Guidance, and Counseling; (2) Health Services; (3) Housing for Students; (4) Placement; and (5) Follow-up and In-service Education.

6. Will schools with the highest percent attained on the Bookwalter-Dollgener Score Card in the area of staff standards also consistently earn the highest percent attained in the area of curriculum policies and practices?

The results revealed that a high percent of attainment in staff standards does not necessarily indicate that a school will score high in curriculum policies and practices, as measured in this study by the Bookwalter-Dollgener Score Card.

Conclusions

The following are the conclusions drawn from an interpretation of the findings:

1. The Bookwalter-Dollgener Score Card, as an instrument to evaluate professional preparation programs for undergraduate physical education, does reveal strengths and weaknesses in program areas. From these data each institution can make self-evaluations for improvement.

2. The professional preparation programs in physical education in the schools ranged from below average to above average in attainment. Considering that the mean percent of attainment was 77.5 percent with a high of 86.1 and a low of 62.1, the mean percent of attainment was higher than those acquired in other studies using the Bookwalter-Dollgener Score Card.

3. There is a need for all institutions to encourage their physical education personnel to affiliate with local,

state, regional, and national professional organizations in their fields.

4. Institutions with enrollments under 6,000 have weaknesses mainly because of financial resources. This also affects the quality of program offerings within the department of physical education.

5. The areas of general education, foundation sciences, and general professional education offerings were adequate in terms of number of semester hours.

6. Health services in general were good, but smaller institutions need more full-time physicians and nurses and adequately equipped health services and maintained facilities.

7. Institutions with student populations less than 15,000 do not have centralized storage of audio-visual aids and instructional materials such as slides, films, filmstrips, charts, models, tapes, and/or wire recordings available in the physical education facilities. The schools with student populations from 15,000 to 30,000 did not have this problem.

8. Opportunities are not provided for staff members to participate in research and publications.

9. It was apparent from the correlations that few relationships exist between the specific variables of the score card in this study.

Recommendations

The following are recommendations for program improvement based upon the results of this study:

1. The schools falling below the criterion of attainment in any area of the score card should set up priorities in terms of short and long term goals to be met.

2. The physical education departments should encourage participation in professional organizations by their staff members.

3. All institutions need more finance, but those with 6,000 students or less need to solicit the support of the coordinating board and the legislature for more funds for capital outlay and expendable equipment.

4. The requirement in foundation sciences and general professional education should be strengthened.

5. Those health service centers failing to reach the 75 percent criterion of attainment need to provide better facilities and service to their students.

6. Physical education staff members should engage in more research and publications.

7. Staff members should be more aware of the standards of attainment for the state, regional, and national accrediting agencies.

8. Develop a score card and evaluate the graduate professional programs in physical education in Texas colleges and universities.

9. Conduct a study of the undergraduate professional physical education in private colleges and universities in Texas.

10. Conduct a study of the graduates of the fourteen institutions participating in this study to determine the strengths and weaknesses in the undergraduate curriculum as they perceive them.

The results of this study revealed strengths and weaknesses in the physical education programs in the schools studied as measured by the Bookwalter-Dollgener Score Card. Systematic revision in the programs can be accomplished through the use of short and long term priorities based on the results of this study.

APPENDIX A

February 12, 1973

Dear

As part of my graduate study here at North Texas State University, I propose a study to evaluate the undergraduate professional preparation programs of colleges and universities in Texas. This study has been prompted by the interest shown on the topic by members at National and State meetings. Also, the study will serve as partial fulfillment of degree requirements for the Doctor of Education.

The purpose of this letter is to ask your cooperation in making this study. This cooperation would consist of a personal interview (approximately 2 hours), permission to observe some of your facilities and equipment, and completion of the enclosed postal card. The instrument I plan to use is the Bookwalter-Dolk-gener Score Card (revised edition). I will be in your area of the state _____ . If this does not suit your schedule please feel free to suggest alternate dates.

You may be assured that any findings regarding your institution will remain anonymous at all times, with the exception that you personally will be supplied with the results pertaining to your institution upon the completion of the study.

Dr. Jack Watson, Professor of Physical Education of North Texas State University, has given his approval and encouragement to this project.

Sincerely yours,

Samuel E. Lindsay

Dr. Jack Watson
Professor of Physical Education

APPENDIX B

POSTAL CARD TO BE RETURNED

Please indicate your willingness to participate in the study by making an "X" in the appropriate box.

1. I will participate in the study and will grant you a personal interview as well as permission to observe our facilities and equipment.
2. I will not participate in the study.

Name of College or University

Please indicate alternate date _____

Signature

Samuel E. Lindsay
Box 5491, North Texas State University
Denton, Texas 76203

APPENDIX C
 SCORING GUIDE

Bookwalter-Dollinger Score Card for
 Undergraduate Professional Programs in
 Physical Education

Institution _____ _____ Address: _____ _____ Professional Physical Education is administered in this institu- tion as follows: _____ _____ Administrator(s) and Title(s) _____ _____ Persons interviewed _____ _____ _____ _____ _____ _____ _____	Institution Enrollment I - 0 - 999 _____ II - 1,000 - 4,999 _____ III - 5,000 - 9,999 _____ IV - 10,000 - 19,999 _____ V - 20,000 - up _____ Type Program A - Has College of P.E. _____ B - Has University Status _____ C - Teachers Coll. Chiefly _____ D - Liberal Arts College _____ Type of Support: 1. Public _____ 2. Private _____ Other Professional Physical Education data: 1. Undergraduate Enrollment Men _____ Women _____ Total _____ 2. Graduate Enrollment Men _____ Women _____ Total _____ 3. Accreditation: State Department _____ Regional Agency _____ National Agency _____ 4. Other _____ Evaluator(s) _____ _____
--	---

Total Score _____ 1,000

I. General Institutional and Departmental Practices

A. General Policies

1.	3	_____	
2.	3	_____	
3.	3	_____	
4.	4	_____	24
5.	4	_____	
6.	4	_____	
7.	3	_____	

B. Professional Affil. and ACCR.

1.	5	_____	
2.	4	_____	12
3.	3	_____	

C. Admissions

1.	5	_____	
2.	6	_____	22
3.	6	_____	
4.	5	_____	

D. General Departmental

1.	3	_____	
2.	4	_____	
3.	5	_____	22
4.	5	_____	
5.	5	_____	

II. Staff Standards

A. Number

1.	4	_____	
2.	4	_____	
3.	7	_____	
4.	5	_____	30
5.	5	_____	
6.	5	_____	

B. Qualifications

1.	4	_____	
2.	4	_____	
3.	4	_____	20
4.	4	_____	
5.	4	_____	

C. Experience

1.	4	_____	
2.	4	_____	
3.	4	_____	20
4.	4	_____	
5.	4	_____	

D. Teaching Load

1.	4	_____	
2.	4	_____	
3.	5	_____	26
4.	4	_____	
5.	4	_____	
6.	5	_____	

E. Professional Status

1.	3	_____	
2.	3	_____	
3.	3	_____	
4.	4	_____	22
5.	3	_____	
6.	3	_____	
7.	3	_____	

III. Curriculum Policies and Practices 97

A. General Education

1.	6	_____	
2.	4	_____	
3.	4	_____	
4.	4	_____	28
5.	4	_____	
6.	6	_____	

B. Foundation Sciences

1.	6	_____	
2.	3	_____	
3.	3	_____	18
4.	3	_____	
5.	3	_____	

C. General Professional Education

1.	6	_____	
2.	6	_____	22
3.	10	_____	

D. Special Professional Education Theory

1.	6	_____	
2.	4	_____	30
3.	20	_____	

E. Special Professional Education Techniques

1.	6	_____	
2.	2	_____	
3.	6	_____	32
4.	6	_____	
5.	6	_____	
6.	6	_____	

Area Total 80 _____

Area Total 120 _____

Area Total 130 _____

IV. The Teaching Act

A. Personality

- 1. 3 _____
- 2. 4 _____
- 3. 3 _____ 20 _____
- 4. 4 _____
- 5. 3 _____
- 6. 3 _____

B. Planning

- 1. 5 _____
- 2. 3 _____
- 3. 3 _____
- 4. 2 _____
- 5. 2 _____
- 6. 3 _____

C. Techniques

- 1. 4 _____
- 2. 3 _____
- 3. 4 _____
- 4. 2 _____
- 5. 5 _____ 35 _____
- 6. 3 _____
- 7. 3 _____
- 8. 4 _____
- 9. 3 _____
- 10. 4 _____

D. Evaluation

- 1. 3 _____
- 2. 3 _____
- 3. 2 _____
- 4. 2 _____ 17 _____
- 5. 2 _____
- 6. 3 _____
- 7. 2 _____

V. Service Program and Extended Curriculum

A. Service Program

- 1. 2 _____
- 2. 2 _____
- 3. 3 _____
- 4. 3 _____
- 5. 3 _____ 30 _____
- 6. 2 _____
- 7. 2 _____
- 8. 3 _____
- 9. 2 _____
- 10. 2 _____
- 11. 2 _____
- 12. 2 _____
- 13. 2 _____

B. Intramural Program

- 1. 2 _____
- 2. 3 _____
- 3. 2 _____
- 4. 3 _____ 26 _____
- 5. 2 _____
- 6. 3 _____
- 7. 2 _____
- 8. 3 _____
- 9. 2 _____
- 10. 2 _____
- 11. 2 _____

C. Intercollegiate Athletics

- 1. 3 _____
- 2. 3 _____
- 3. 2 _____
- 4. 2 _____
- 5. 2 _____
- 6. 2 _____
- 7. 3 _____
- 8. 3 _____

D. Recreational Activities

- 1. 3 _____
- 2. 2 _____
- 3. 2 _____
- 4. 3 _____
- 5. 2 _____
- 6. 2 _____

VI. Student Service

A. Recruitment

- 1. 3 _____
- 2. 3 _____
- 3. 3 _____ 20 _____
- 4. 3 _____
- 5. 3 _____
- 6. 3 _____
- 7. 2 _____

B. Health Service

- 1. 6 _____
- 2. 3 _____
- 3. 3 _____
- 4. 2 _____ 36 _____
- 5. 4 _____
- 6. 4 _____
- 7. 2 _____
- 8. 3 _____
- 9. 3 _____
- 10. 2 _____
- 11. 4 _____

C. Housing

- 1. 3 _____
- 2. 2 _____ 14 _____
- 3. 3 _____
- 4. 3 _____
- 5. 3 _____

D. Placement

- 1. 3 _____
- 2. 3 _____
- 3. 3 _____
- 4. 2 _____ 20 _____
- 5. 2 _____
- 6. 2 _____
- 7. 3 _____
- 8. 2 _____

E. Follow-up

- 1. 3 _____
- 2. 3 _____
- 3. 2 _____
- 4. 3 _____
- 5. 3 _____ 30 _____
- 6. 5 _____
- 7. 2 _____
- 8. 3 _____
- 9. 4 _____
- 10. 2 _____

Area Total 90 _____

Area total 90 _____

Area total 120 _____

VII. Library-Audio
Visual

- A. Library
1. General Features
 - a. 1 _____
 - b. 3 _____
 - c. 2 _____
 - d. 3 _____ 15 _____
 - e. 1 _____
 - f. 2 _____
 - g. 2 _____
 - h. 1 _____
 2. Library Services -
 - a. 2 _____
 - b. 2 _____ 8 _____
 - c. 2 _____
 - d. 2 _____
 3. Books, Pamphlets
 - a. 3 _____
 - b. 2 _____
 - c. 2 _____ 17 _____
 - d. 2 _____
 - e. 8 _____
 4. Periodicals
 - a. 2 _____
 - b. 12 _____ 14 _____
- B. Audio-Visual Aids
1. General Features
 - a. 2 _____
 - b. 2 _____
 - c. 2 _____ 10 _____
 - d. 2 _____
 - e. 2 _____
 2. Instructional
 - a. 2 _____
 - b. 2 _____
 - c. 2 _____ 10 _____
 - d. 2 _____
 - e. 2 _____
 3. Equipment, etc.
 - a. 3 _____
 - b. 2 _____
 - c. 3 _____ 16 _____
 - d. 2 _____
 - e. 2 _____
 - f. 3 _____
 - g. 1 _____

Subtotal 36 _____

VIII. Supplies and
Equipment

- A. General Practice
1. 2 _____
 2. 2 _____
 3. 2 _____ 13 _____
 4. 2 _____
 5. 2 _____
 6. 1 _____
 7. 2 _____
- Subtotal 13 _____
- B. Supplies
1. Sports
 - a. 1 _____
 - b. 2 _____
 - c. 1 _____
 - d. 2 _____
 - e. 1 _____
 - f. 3 _____ 21 _____
 - g. 1 _____
 - h. 3 _____
 - i. 1 _____
 - j. 1 _____
 - k. 2 _____
 - l. 1 _____
 - m. 1 _____
 - n. 1 _____
 2. Rhythm
 - a. 1 _____
 - b. 2 _____ 4 _____
 - c. 1 _____
 3. Gymnastic
 - a. 1 _____ 4 _____
 - b. 3 _____
- Subtotal 29 _____

Area VIII Total 80 _____

C. Equipment

1. Heavy
Equipment
 - a. 3 _____
 - b. 2 _____
 - c. 2 _____
 - d. 2 _____
 - e. 2 _____
 - f. 1 _____ 23 _____
 - g. 1 _____
 - h. 1 _____
 - i. 1 _____
 - j. 1 _____
 - k. 1 _____
 - l. 1 _____
 - m. 2 _____
 - n. 1 _____
 - o. 1 _____
 - p. 1 _____
 2. Rhythm
 - a. 2 _____
 - b. 1 _____ 3 _____
 3. Measurements
and
Evaluation
 - a. 1 _____
 - b. 2 _____
 - c. 2 _____
 - d. 1 _____
 - e. 1 _____ 12 _____
 - f. 1 _____
 - g. 1 _____
 - h. 1 _____
 - i. 1 _____
 - j. 1 _____
- Subtotal 38 _____

Area IX. Indoor Facilities

A. General Features

1. 5 _____
 2. 4 _____ 13 _____
 3. 4 _____

B. Administration

1. 4 _____
 2. 4 _____
 3. 4 _____
 4. 3 _____ 23 _____
 5. 3 _____
 6. 3 _____
 7. 2 _____

C. Instructional

1. 6 _____
 2. 8 _____
 3. 4 _____
 4. 5 _____ 42 _____
 5. 4 _____
 6. 4 _____
 7. 5 _____
 8. 6 _____

D. Service

1. 4 _____
 2. 6 _____
 3. 3 _____
 4. 3 _____ 32 _____
 5. 3 _____
 6. 3 _____
 7. 6 _____
 8. 4 _____

Area IX. Total 110 _____

Area X. Outdoor Facilities

A. General Features

1. 5 _____
 2. 5 _____
 3. 4 _____ 23 _____
 4. 3 _____
 5. 3 _____
 6. 3 _____

B. Services

1. 6 _____
 2. 3 _____
 3. 3 _____
 4. 5 _____ 27 _____
 5. 3 _____
 6. 3 _____
 7. 4 _____

C. Intramural

1. 5 _____
 2. 4 _____
 3. 3 _____ 18 _____
 4. 3 _____
 5. 3 _____

D. Inter Collegiate

1. 5 _____
 2. 3 _____
 3. 4 _____
 4. 4 _____ 22 _____
 5. 6 _____

Area X. Total 90 _____

Total Score 1,000 _____

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