1965

A Study of the Present Status of Physical Education Facilities for Women in the Institutions of the South Dakota College Physical Education Association

Harold Robert Mansheim

Follow this and additional works at: https://openprairie.sdstate.edu/etd

Recommended Citation
https://openprairie.sdstate.edu/etd/3063

This Thesis - Open Access is brought to you for free and open access by Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.
A STUDY OF THE PRESENT STATUS OF PHYSICAL EDUCATION
FACILITIES FOR WOMEN IN THE INSTITUTIONS OF THE
SOUTH DAKOTA COLLEGE PHYSICAL
EDUCATION ASSOCIATION

BY
HAROLD ROBERT MANSHEIM

A thesis submitted
in partial fulfillment of the requirements for the degree
Master of Science, Major in Physical Education,
South Dakota State University

1965

SOUTH DAKOTA STATE UNIVERSITY LIBRARY
A STUDY OF THE PRESENT STATUS OF PHYSICAL EDUCATION
FACILITIES FOR WOMEN IN THE INSTITUTIONS OF THE
SOUTH DAKOTA COLLEGE PHYSICAL
EDUCATION ASSOCIATION

This thesis is approved as a creditable and independent
investigation by a candidate for the degree, Master of Science,
and is acceptable as meeting the thesis requirements for this
degree, but without implying that the conclusions reached by the
candidate are necessarily the conclusions of the major department.

Thesis Advisor

Head, Physical Education
Department

Date
A STUDY OF THE PRESENT STATUS OF PHYSICAL EDUCATION FACILITIES FOR WOMEN IN THE INSTITUTIONS OF THE SOUTH DAKOTA COLLEGE PHYSICAL EDUCATION ASSOCIATION

Abstract

Harold Robert Manshein

Under the supervision of Assistant Professor Geraldine Crabbs

The author attempted to reveal the existing conditions and adequacies or inadequacies of the physical education facilities for women at eleven four year colleges and universities in the state of South Dakota.

The survey method, utilizing the questionnaire-interview technique, was employed in conducting the study. The questionnaire was formulated and submitted to four South Dakota State University physical educators and two Brookings High School physical education instructors. The committee's suggestions and corrections were used in formulating the final draft of the questionnaire.

On January 6, 1964, a postal card was sent introducing the study and requesting cooperation to the director of women's physical education at each of the participating schools. Two weeks later through the author's letter of transmittal a personal interview was arranged. A letter of sponsorship and questionnaire were sent to each of the eleven directors of women's physical education. Tape recordings were made of all interviews and all questionnaires were returned.

Physical education literature was investigated to determine the criteria to be used in evaluating the existing facilities.
rating scale was formulated by the author and applied to facilities of the colleges investigated. From the data collected the following was indicated:

1. Playing fields at General Beadle State College, Black Hills State College, Southern State College, Northern State College, Sioux Falls College, Dakota Wesleyan University, and Yankton College were rated "satisfactory." At the University of South Dakota and Huron College no fields were available. The play fields at Augustana and South Dakota State University were rated "fair."

2. The individual and dual activity areas at Huron College and General Beadle State College were rated "unsatisfactory." The same facilities were rated "fair" at all other colleges.

3. The swimming pools at University of South Dakota, Black Hills State College, Northern State College, and Dakota Wesleyan University were considered "satisfactory." Pools were non-existent at the other colleges.

4. The gymnasiums at General Beadle State College, Southern State College, and Northern State College were rated "satisfactory." Those of South Dakota State University, Black Hills State College, Augustana, and Dakota Wesleyan University were rated "unsatisfactory." The gymnasiums of all other colleges were rated as "fair."

5. The locker rooms at Black Hills State College and Southern State College were rated "satisfactory" and at Augustana as "unsatisfactory." At all other colleges the locker rooms were rated as "fair."
6. The shower rooms were "satisfactory" at Black Hills State College and rated "fair" at the ten other colleges.
ACKNOWLEDGMENTS

The author wishes to express his sincere appreciation to Miss Geraldine Grabbs for her assistance and guidance throughout the course of the study.

Appreciation is also expressed to his wife for her encouragement and to the respondents for their cooperation in answering the questionnaire and interview questions.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>4</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>5</td>
</tr>
<tr>
<td>Nature of the Schools Studied</td>
<td>6</td>
</tr>
<tr>
<td>II. REVIEW OF RELATED LITERATURE</td>
<td>7</td>
</tr>
<tr>
<td>III. CRITERIA</td>
<td>38</td>
</tr>
<tr>
<td>IV. PROCEDURE</td>
<td>40</td>
</tr>
<tr>
<td>V. PRESENTATION OF THE DATA</td>
<td>44</td>
</tr>
<tr>
<td>Playing Fields</td>
<td>46</td>
</tr>
<tr>
<td>Individual and Dual Activity Areas</td>
<td>46</td>
</tr>
<tr>
<td>Swimming Pools</td>
<td>48</td>
</tr>
<tr>
<td>Gymnasi ums</td>
<td>49</td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>50</td>
</tr>
<tr>
<td>Lockers and Baskets</td>
<td>52</td>
</tr>
<tr>
<td>Shower Rooms</td>
<td>53</td>
</tr>
<tr>
<td>Related Data</td>
<td>56</td>
</tr>
<tr>
<td>VI. INTERPRETATION OF DATA</td>
<td>57</td>
</tr>
<tr>
<td>VII. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS</td>
<td>63</td>
</tr>
<tr>
<td>Summary</td>
<td>63</td>
</tr>
<tr>
<td>Conclusions and Recommendations</td>
<td>66</td>
</tr>
<tr>
<td>Recommendations for Further Study</td>
<td>73</td>
</tr>
<tr>
<td>REFERENCES CITED</td>
<td>74</td>
</tr>
<tr>
<td>------------------</td>
<td>----</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>76</td>
</tr>
<tr>
<td>Appendix A: Basic Interview Questions</td>
<td>77</td>
</tr>
<tr>
<td>Appendix B: Responses of the Directors</td>
<td>79</td>
</tr>
<tr>
<td>Appendix C: Questionnaire</td>
<td>87</td>
</tr>
<tr>
<td>Appendix D: Preliminary Post Card</td>
<td>96</td>
</tr>
<tr>
<td>Appendix E: Letter of Transmittal</td>
<td>97</td>
</tr>
<tr>
<td>Appendix F: Letter of Sponsorship</td>
<td>98</td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Enrollments in Colleges, Activity Classes, and Major and Minor Programs</td>
<td>45</td>
</tr>
<tr>
<td>II. The Availability and Size of Play Fields for Women</td>
<td>47</td>
</tr>
<tr>
<td>III. Colleges Offering Swimming</td>
<td>49</td>
</tr>
<tr>
<td>IV. The Ratings Given to Play Fields, Gymnasiums, Swimming Pools, Individual and Dual Areas, Locker Rooms and Shower Rooms of Each College</td>
<td>62</td>
</tr>
</tbody>
</table>
Chapter I
INTRODUCTION

The administration and conduct of the modern physical education program for college women involves the supplying and maintaining of adequate facilities. To achieve maximum benefits, adequate facilities are necessary for the administration of broad and varied programs. College basic instruction classes may terminate the instructional program in physical activities for many women students. It is, therefore, necessary that the programs offer satisfying experiences in many physical activities in an environment that is safe and healthful. The author is convinced that the program content should be based upon the needs and interests of the students. If future teachers are to be capable of conducting broad programs that truly meet the needs and interests of their students, the physical education major curriculum must be comprehensive in its scope. Only through the furnishing of and sustaining of adequate facilities can such a program be effective.

For the aims of physical education to be realized adequate facilities must be provided. Nixon, Flanagan, and Frederickson state, "Organized physical education should aim to make the maximum contribution to the optimum development of the individual's potentialities in all phases of life, by placing him in an environment as favorable as
possible to the promotion of such muscular and related responses or activities as will best contribute to this purpose.\footnote{John E. Nixon, Lance Flanagan, and Florence S. Frederickson, \textit{An Introduction to Physical Education}, p. 52.}

Adequate facilities make a vital contribution to a favorable learning environment. If physical education is to make its maximum contribution to the physical, social, mental, and emotional well being of young women, educators can not overlook any factor that may facilitate the achievement of this goal. Physiologists and physical educators agree that benefits are derived from participation in physical education programs. Broer states that the unique contribution physical education makes to general education is in the area of effective, efficient and purposeful movement. Broer also believes that such a contribution is of tremendous importance to adults when we realize the impact of the scientific truth that the basic tool for performance of any task in life is the human body.\footnote{Marion Broer, \textit{Efficiency in Human Movement}, p. 3.}

\textbf{Oberteuffer and Ulrich} point out that movement is really more than a basic physiological necessity—it is also our interpretation of self to ourselves and others. They also state that movement is fundamental to life, to growth, and to development.\footnote{Delbert Oberteuffer and Celeste Ulrich, \textit{Physical Education, Textbook of Principles for Professional Students}, p. 1.}
As a result of the rejection of many young men in World War II and Korean War drafts and of the findings of Kraus who found European youth to be more physically fit than American youth, the physical fitness of American youth became of vital concern to our country's leaders. The physical fitness of the youth of our country is in part related to the adequacy of available facilities. These facilities dictate the extent to which a program of physical education may contribute to fitness. In July of 1961, President Kennedy emphasized the importance of adequate educational facilities in his message to school administrators. He presented this challenge.

The strength of our democracy is no greater than the collective well being of our people. The level of physical, mental, moral and spiritual fitness of every American citizen must be our constant concern.---In answering this challenge we must look to our schools and colleges as the decisive force in a renewed national effort to maintain health and physical fitness. We must expand and improve our health services, health education and physical education. How else can we meet these growing challenges without increasing and improving our facilities.4

4 John F. Kennedy, Youth Physical Fitness, Preface.

Houston stressed the need for adequate facilities in the following statement.

The motor activity program of college women is free from stress and publicity. We need to let it be known that adequate facilities are needed for the rightful administration of this phase of our educational endeavor.5

5 Ruth Elliot Houston, Modern Trends in Physical Education Facilities for Women, p. 3.
In regard to the goals of physical education, Scott and Westkaemper make the following statements.

Physical recreations rank high in leisure time pursuits. One of the goals of physical education is to aid students in developing competencies in physical recreations. It seems likely, therefore, that colleges in order to discharge their educational obligations to society will increase rather than decrease the scope of their physical education programs.6


The author realized that broad and varied physical education programs with adequate facilities provide an environment that offers an opportunity for each individual to achieve his maximum potential. With this in mind, the study was undertaken to determine the actual status of physical education facilities for women in the institutions of higher learning affiliated with the South Dakota College Physical Education Association.

Statement of the Problem

The purpose of this study was to investigate the present status of physical education facilities for women in the institutions of the South Dakota College Physical Education Association.

Through the study, the author attempted to reveal the existing conditions and adequacies or inadequacies of the gymnasiums, swimming pools, playing fields, locker and shower room facilities at the eleven four year colleges and universities offering physical education for women. By using the information obtained in the study,
directors are in a position to examine their facilities in comparison with those of other participating schools. This material could be helpful in rating their facilities according to standards recommended by experts in the field of physical education.

It was hoped that the data might be used as a guide for improving and expanding the existing facilities, if improvement and expansion were deemed necessary. The improvement of the college physical education program facilities could perceptibly promote an improvement in the total program of physical education in the state of South Dakota.

Limitations of the Study

1. This study was limited to the four-year colleges that belonged to the South Dakota College Physical Education Association and offered a women's physical education program. Although the South Dakota School of Mines and Technology belonged to the association, it was excluded from the study because it did not conduct a program in physical education for women.

2. The information collected from the colleges pertained to the first semester of the 1963-64 school year.

3. In formulating evaluative criteria the author accepted only those recommendations and standards upon which leaders in physical education appeared to be in agreement.
Nature of the Schools Studied

All eleven schools under consideration offered a major in women's physical education. Six of the schools were state supported institutions. They were:

University of South Dakota
South Dakota State University
General Beadle State College
Black Hills State College
Southern State College
Northern State College

Five of the schools were privately supported institutions. The schools and denominations supporting them were:

Augustana College---Evangelical Lutheran
Sioux Falls College---American Baptist Convention
Dakota Wesleyan University---Methodist
Huron College---Presbyterian
Yankton College---Congregational

In the thesis the respective schools are referred to as follows:

University of South Dakota--------------U.S.D.
South Dakota State University-------------S.D.S.U.
General Beadle State College-------------Beadle
Black Hills State College-----------------B.H.S.C.
Southern State College--------------------S.S.C.
Northern State College--------------------N.S.C.
Augustana College------------------------Augustana
Sioux Falls College----------------------Sioux Falls
Dakota Wesleyan University--------------D.W.U.
Huron College---------------------------Huron
Yankton College-------------------------Yankton
Chapter II

REVIEW OF RELATED LITERATURE

By investigating the literature in physical education, the author attempted to find agreement regarding standards for facilities necessary for the conduct of an adequate program of physical education for college women. Many factors influence the adequacy of facilities, therefore it is impossible to establish a set of standards for facilities that would be applicable to all institutions. It is possible, however, to make comparison on the basis of those specific recommendations upon which authorities are in agreement. In broad areas, authors agree that facilities should not only be adequate with respect to quality and quantity but also be in such quantity as to handle peak loads. A variety of facilities should be provided to insure the possibility of broad programs that enrich the opportunities inherent in physical education. The search of the literature did not reveal previous studies of facilities for college women.

Playing Fields

The literature reveals that education through activity is a basic method of teaching and is a means of accomplishing the desired objectives of education. The modern play fields and teaching stations in physical education deserve the same attention with respect to construction, equipment and use, as is given to any academic facility. Weather permitting, a large proportion of the physical education program
should be carried on out-of-doors and outdoor facilities deserve thorough consideration in the total pattern of the school environment.

Hughes and French make the following statements regarding outdoor facilities.

In designing outdoor play areas it is desirable to give consideration to such factors as location, safety, drainage, ease of supervision, and beauty. Separate playing fields should be provided for boys and girls and the space should be accessible without the necessity of crossing the fields of the opposite sex.  

---


---

In considering the size and variety of fields, Howard and Masonbrink suggest that the outdoor areas should be sufficient in size and variety to accommodate the typical sports, games and other activities of physical education, athletics, and recreational programs associated with the institution.

---


---

According to Hughes and French, play space for colleges and universities, regardless of size, should attempt to provide such minimum outdoor facilities as:

1. Separate playing fields for men and women within easy walking distance of the dormitories.
2. Several playing fields in addition to varsity facilities suitable for such activities as touch football, field hockey, soccer, and speedball in the fall, and baseball, softball, soccer and lacrosse in the spring.
3. Multiple paved areas for court games, skating and other activities requiring a hard surface.
4. Football gridiron and practice field for men.
5. A baseball diamond.
6. A quarter mile cinder track with a 100 yard straightaway.
7. Tennis courts (at least one for every 50 students).
8. A golf course.
9. An archery range.

The authors also believe that construction factors should include drainage, surfacing, fencing, lighting and orientation of fields and courts.9


In a study of the physical education curriculum based upon 27 years of research, LaPorte states:

The modern physical education program emphasizing sports requires extensive play areas. Athletic fields should be equipped with areas suitable for all forms of field and court games. The number and size of the units should vary according to the number of students to be accommodated.10


Bucher believes that the play area should be determined on the basis of activities offered in the program and the number of individuals who will be using the facilities at peak load. He further states that possibilities for expansion should be kept in mind.11

11Charles A. Bucher, Administration of School Health and Physical Education Programs, p. 226.
In regard to the multiple use of areas, Scott and Westkämper make the following statements.

Separate areas for instruction in field games should be provided for both boys and girls. This insures the availability of facilities for both groups at all times. — In colleges, the facilities for class instruction purposes are not intended for use in the program of intercollegiate athletics. — It should be recognized that small schools or colleges may not have the need for numerous teaching stations or the finances to develop separate facilities for the different aspects of the physical education program. In these instances, therefore, the circumstances dictate the multiple use of areas.12


Swimming Pools

Authors in the field of physical education seem to be in agreement that swimming represents an ideal activity for their programs. From a physiological point of view, swimming allows for maximal functioning of large muscle groups without danger of strain. Most educators and health officials readily accept swimming as an important activity in the maintenance of good health and as a means of wholesome recreation. This places a responsibility on the schools to teach various aquatic techniques which lead to real enjoyment and safety.13

According to LaForte, a swimming pool should be provided if at all possible, since swimming has been evaluated as the most significant all around activity. He states that the closed pool is desirable; otherwise, class instruction will be seriously handicapped during the winter months.\(^\text{14}\)


Forsythe and Duncan state that every opportunity should be provided to teach swimming and to have a wholesome respect for the water, as to its dangers and its possibilities. They also recommend that the pool should be so designed that it can serve the dual purpose of meeting community needs and at the same time provide for the swimming instruction and competitive activities included in the school program.\(^\text{15}\)

\(^{15}\)Charles E. Forsythe and Ray C. Duncan, Administration of Physical Education, p. 102.

There is agreement that the cost of construction and maintenance of the swimming pool will be greater, in terms of per capita use, than that of any other unit of the physical education plant. Therefore, it must be carefully planned to meet the needs of the school and community in which it is located. Standards for swimming pool construction and operation should be checked with local and state authorities.
Bucher believes that the two main objectives of swimming pools are:

First, to provide instructional and competitive programs and, second, to provide recreation. The pool should be located on or above the ground level, have southern exposure, be isolated from other units in the building, and be easily accessible from the central dressing locker rooms.16

16 Charles A. Bucher, Administration of School Health and Physical Education Programs, p. 255.

Hughes and French emphasize the values of swimming in the following statements.

In several respects swimming represents one of the most valuable of all the physical activities. Judged by its contribution to physiological functioning, psychological satisfaction, social adjustment, and to recreational and safety skills, it ranks high on the list. The values, plus the growing popularity of swimming and water sports among all ages, places a responsibility on the schools and colleges to teach the techniques of aquatics and water safety.17


Scott and Westkaemer believe that instruction in aquatics is an integral part of the organized program of physical education, because of the wide range of activities possible in a swimming pool. They add that among the functions of the program are: class instruction in swimming and diving; instruction in water safety and military survival; recreational swimming by school and college groups; the programs of competitive swimming, diving, and water games; water
Pageants and synchronized swimming; and recreational swimming for community groups.


The report of the National Facilities Conference summarizes the importance of swimming in the physical education program and stresses the need for care in planning pools in the following statements.

Swimming, with its variety of related activities, has long been recognized by educational leaders for its contribution to physical development, enjoyment, health, recreation, social growth, and self reliance. Undoubtedly, the greatest single motivation for swimming is the fun or enjoyment factor---Swimming ranks as one of the most popular forms of recreation. It holds a high place in the physical education program. Few, if any, recreation or physical education facilities have had more striking growth in recent years than the swimming pool. The cost of constructing and operating a swimming pool, represents a substantial investment. Consequently, it is imperative that careful planning precede construction in order to obtain a safe, efficient facility which will serve effectively for many years.


As a result of continuous and cooperative efforts of swimming experts, sanitarians, architects, and administrators numerous standards are available for the construction of safe, economical, and sanitary pools.
Gymnasiums

Williams, Brownell, and Vernier refer to the gymnasium as the most prevalent type of teaching station in which a class group for physical education instruction meets. They state that the size of the main gymnasium is dependent upon its intended use. They believe that these factors must be considered in its construction; grade levels to be served, number of teaching stations required, official size of playing courts, community use and spectator space.

---

Bucher makes the following statements regarding the gymnasium as a teaching station.

The type and number of gymnasiums that should be a part of a school or recreational plant will depend upon the number of individuals who will be participating, the variety of activities which will be conducted in this area, and the school level concerned. The number of teaching stations desired will play an important part in deciding the size and number of gymnasiums. A teaching station is a place where a group meets with a teacher or leader for the conduct of certain activities. The degree to which a varied program is offered, the facilities that are available, and the number of staff members will determine the number of teaching stations utilized in any program. In addition to an adequate number of teaching stations, it is also important to give attention to official size courts, adequate space for safe and enjoyable participation, and spectator space.

---


21 Charles A. Bucher, Administration of School Health and Physical Education Programs, p. 251.
The National Facilities Conference report states that in planning the gymnasium in a school, the immediate concern should be the provision of needed teaching stations. It further states that the gymnasium should be readily accessible from the rest of the plant and from the outdoor playing fields and areas. The report also states that in determining the size of the gymnasium, the planners will be governed by the school levels to be served, the anticipated community and spectator use of the facility, and the financial resources available. In conclusion, the report states that it is a general principle that the higher the grade level to be served, the larger the facility because of the size of game courts and the tendency toward larger spectator attendance. 22

Hughes and French make specific recommendations regarding the gymnasium in the following statements.

The size of the gymnasium is dependent upon the number of teaching stations or units which are necessary to accommodate the program of physical education and athletics in a given college or school. Teaching stations will depend upon such factors as: the enrollment of the institution, assuming the program is designed to reach all students; the size of classes; the number of class meetings per week; the number and length of periods in the day; and the nature and scope of the program to be offered. Increasingly, schools and colleges are providing separate gymnasiums for boys and girls. 23


Bucher, Koenig, and Barnhard believe that the type and number of gymnasiums should be decided by the number of participating individuals, the variety of activities to be conducted, the number of desired teaching stations, official court sizes, spectators, and the need for enjoyable and safe activity participation.  


Forsythe and Duncan state that the gymnasium is the center of administration of the physical education program. They also state that the size will depend upon such considerations as whether there is to be separate use of it by boys and girls and whether provision is to be made for spectator accommodations. They further add that the floor space should be at least large enough to allow for official dimensions of playing courts, with a six to eight foot safety zone (larger if possible) between boundaries and walls or bleachers.


In regard to gymnasiums, Howard and Masonbrink state that all facilities should be of sufficient number for class instruction in activities under actual game conditions. They add further that not only should there be enough teaching stations to accommodate the program, but size of facilities should permit laboratory experience under game conditions. Howard and Masonbrink state further that
standard court dimensions should be followed in planning of new fa-
cilities.26

26Glen W. Howard and Edward Masonbrink, Administration of Physical
Education, p. 284.

---

**Locker Rooms**

The report of the National Facilities Conference recommends

that a dressing locker room suite should be provided in every school.

Such facilities are needed for participants in physical educa-
tion, athletics, and recreation programs for hygienic care of
themselves and their clothes for either activity or street
wear. This suite includes dressing space, lockers, showers,
toweling room, toilets, lavatories, towel service and storage
room.27

27National Facilities Conference, Planning Facilities for Health,
Physical Education and Recreation, p. 57.

---

The Athletic Institute report makes the following state-
ments concerning the central dressing room or the locker room.

It should be located so as to serve functionally the indoor and
outdoor teaching stations and other service facilities related
to dressing room use. Dressing rooms should be located on the
gymnasium floor level directly adjacent to and connected with
the gymnasium. Other teaching stations should be located as
closely as possible to the dressing rooms. Access from dressing
room to each physical education teaching station should not be
through public corridors. Dressing rooms should also be located
and designed so that persons outside cannot see into them.
Dressing rooms should be directly accessible to shower rooms.28

28Athletic Institute, A Guide for Planning Facilities for Athletics,
Recreation, Physical and Health Education, p. 64.
Participants of the National Facilities Conference state that the locker room should be on the same floor with the gymnasium and adjacent to it. They also believe that it should be possible for students to enter the locker room directly from outside playing fields or from the corridors without crossing the gymnasium floor. They add that the location of the main locker room should be immediately adjacent to the supply room.  

29 National Facilities Conference, loc. cit.

Brownell states that the locker room and shower room should not be placed in the basement.  

30 Clifford L. Brownell and Jesse F. Williams, Administrative Problems in Health Education, Physical Education, Recreation, p. 84.

The locker room, according to Hughes, should be square or nearly square.  


According to the Athletic Institute Conference report, factors which influence the shape and size of dressing rooms are: spaces required for benches, lockers, storage, toilets, showers, circulation of pupils, and toweling room. If group-type dressing accommodations for girls are desired, it is recommended that these units be designed for eight to twelve girls. The report further states
that sufficient group-type units will be necessary to accommodate the peak period load.  

Brownell also states that the size of the locker room depends, in addition to peak load usage, upon whether or not the type of costume control utilized is the individual locker, locker-basket or dressing locker-storage locker.

In reference to locker room size, LaForte states that locker rooms should provide free floor space, exclusive of lockers, equal to about eight to twelve square feet per pupil for peak loads. He believes that the floors should be of non-slip material, preferably concrete.

In disagreement with LaForte's recommendations, the National Facilities Conference participants believe that locker rooms should be large enough to provide an average of fourteen square feet per pupil in the peak period load exclusive of space required for lockers.

---

32 Athletic Institute, op. cit., p. 64.

33 Clifford L. Brownell and Jesse F. Williams, loc. cit.

34 William Ralph LaForte, The Physical Education Curriculum, (A National Program), p. 44.

Friswold, in discussing locker room ventilation, concludes that mechanical ventilation of the exhaust type would remove odors and prevent condensation of moisture. 36


Bartholomew agrees with this and also recommends that mechanical ventilation should be installed to avoid drafts. 37


Hughes says that ventilation should be accomplished by mechanical means or by the window-gravity method (in rooms having 100 occupants or less). 38


The participants of the National Facilities Conference recommend controlled ventilation for rapid removal of excess heat and moisture and state that this may be provided in conjunction with the shower room ventilation system. 39


The participants of the National Facilities Conference believe that good lighting is very important in damp rooms, such as the dressing-locker suite. They feel, as do other authors, that these
rooms should be oriented to receive an abundance of direct sunlight, preferably from the south. 40

The Athletic Institute report states that the dressing and locker rooms should be well lighted. It also states that the layout of lockers should be considered when planning electrical fixture arrangement, and that moisture proof light fixtures should be installed. 41

Hughes reports that studies indicate a preference for a diffused type rather than direct lighting. He recommends that shadows should be avoided and that ceiling lights with reflectors be placed so that they can be reached without a scaffold. 42

The majority of authorities consulted in this study, recommend the use of radiated heat in the locker room. The Athletic Institute report states that radiant heating is recommended because of its value for dry floors, foot comfort, and elimination of drafts. It also states that in colder regions it may be necessary to add supplementary heating. 43

40 Ibid.
41 Athletic Institute, op. cit., p. 65.
43 Athletic Institute, op. cit., p. 65.
In disagreement with this, Hughes believes steam heating to be preferable. He also states that forced and recirculated hot air is sometimes used, and that some individuals recommend recirculated washed air.

44 William Leonard Hughes, op. cit., p. 296.

Voltmer and Eslingker state that radiators should be recessed in the walls or placed above the heights of pupils, and if recessed, a few protecting bars or grates should be used. They add that it is probably best to suspend them from the ceiling in the locker room.


The College Physical Education Association report recommends that heating radiators should be brass, chromium plated iron, or other material suitable for a moisture-laden atmosphere.

46 The College Physical Education Association, College Facilities for Physical Education, and Recreation, p. 113.

The College Physical Education Association has set up a rating scale for suggested surfacing materials used in locker room construction. A rating of three indicates that the material is "good," two is "better," and one is "best." Ratings of materials are given as follows:
Locker room floor
1--ceramic tile
2--abrasive terrazzo (marble)
3--abrasive concrete, non-absorbent

Locker room walls
1--glazed brick or ceramic tile
2--cinder blocks or concrete
3--plaster

Locker room ceiling
1--acoustic tile (no other material rated satisfactory)\(^47\)

\(^47\)Ibid.

The Athletic Institute Conference participants recommend that walls should be of materials resistant to moisture absorption, with smooth, easily cleaned surfaces.\(^48\)

\(^48\)Athletic Institute, op. cit., p. 65.

Voltmer and Esslinger state that no wall should constitute a particular hazard because of its rough or uneven surface, or because of the likelihood that it might fall down, burn, or afford a breeding place for harmful bacteria and fungus growth.\(^49\)


The Athletic Institute report recommends that the locker room floor should be of impervious materials, such as ceramic or quarry tile with a non-slip surface, and should slope properly toward drains. It also states that if concrete floors are used they should
be treated with a hardener to prevent the penetrations of odors and moisture. 50

50 Athletic Institute, op. cit., p. 65.

Hughes recommends cork tile or concrete with a color-hardened surface as a satisfactory material for the floors. 51


Brownell states that locker room floors should be easy to clean. 52

52 Clifford L. Brownell and Jesse F. Williams, op. cit., p. 84.

Voltmer and Esslinger recommend that the floor should be sloped gradually to the drains which should be large enough to prevent overflow. 53


Bartholomew adds that the locker room floor should have a sufficient number of drains to receive the water when the room is washed down. 54

54 C. Bartholomew, op. cit., p. 29-31.

The National Facilities Conference participants also state that the drainage pitch of the locker room floor should conform to the standards set for shower rooms. 55

The National Facilities Conference report makes the following recommendations regarding lockers.

Lockers are needed for all pupils who will use the central dressing room. Storage lockers should be provided for physical education clothing and dressing lockers for street clothing. The number of storage lockers should be equal to the total enrollment plus ten percent to allow for expansion. Dressing lockers should be of non-corrosive metal and large enough to accommodate street clothes. These should be 12" x 12" x 72" for secondary schools. A non-corrosive metal storage locker should also be present. The sizes of these lockers in order of preference are: 7½" x 12" x 24"; 6" x 12" x 36"; 7½" x 12" x 18". These lockers were selected as preferable sizes with proper length, width, and depth relationships which can be used to store ordinary gymnasium costumes and allow free hanging for ventilation.56

56 Ibid.

LaPorte states that lockers can be of the individual 12" x 12" x 36" steel type, or any of the several combinations of wire storage baskets and large dressing lockers. The latter should be provided in sufficient number to handle the peak load.57


The Athletic Institute Conference report states that in some situations and certain regions it may be desirable to provide baskets for physical education clothing of each pupil based on the anticipated enrollment.58

58 Athletic Institute, op. cit., p. 66.
The participants of the National Facilities Conference make the following recommendations regarding lockers.

Basket type lockers are not recommended for these reasons; basket type lockers do not allow for the hygienic care of dressing equipment; basket type lockers are not economical because they are constantly moved and are then subject to hard wear, and an attendant is essential for proper administration of baskets. If an attendant does not distribute the baskets, there is apt to be locker destruction and pilferage. Student attendants are not recommended.59


Voltmer and Esslinger state that if metal lockers are used for storing equipment, they should be ventilated by blowing warm air through them and outdoors.60


Brownell agrees with Voltmer and Esslinger in his statement that mechanical ventilation of lockers is highly desirable and is a necessity if natural ventilation is insufficient.61

61 Clifford L. Brownell and Jesse F. Williams, op. cit., p. 84.

The National Facilities Conference participants advocate stationary benches secured to the floor with a seat board of hard wood, 8" in width, surfaced on four sides with rounded edges and corners.62

62 National Facilities Conference, Ibid.
All sources investigated agreed that a number of mirrors should be provided in the locker room; however, the location of the mirrors was dependent upon the location of lockers, windows, and available wall spaces. The College Physical Education Association makes these suggestions. "Mirrors should be approximately 18" x 30". Wall mirrors should be 4' 6" from the floor, above a shelf 6" wide, and as long as the mirror above it. Mirrors should not be placed above other facilities."63

63 The College Physical Education Association, College Facilities for Physical Education, Health Education, and Recreation, p. 68.

Participants of the Athletic Institute Conference make the following recommendations.

Mirrors should be encased in non-corrosive metal frames and permanently mounted on the walls. Stainless steel mirrors have been found highly desirable. Alcoves, approximately 12' x 3' equipped with mirrors and ample shelving are more suitable for girls. A full-length mirror near the main exit is recommended.64

64 Athletic Institute, op. cit., p. 68.

The College Physical Education Association states, "In the girls locker room hair dryers should be installed. They should be placed in a row, on a shelf convenient to sitting height for the girls. Enough dryers should be installed to handle the peak load with a ratio of one dryer for every four girls."65

65 The College Physical Education Association, op. cit., pp. 63-64.
Brownell suggests that direct outside windows are highly desirable and if necessary to place them below the gymnasium floor, outside windows may be effected by raising the gymnasium half a floor level. 66

66 Clifford L. Brownell and Jesse P. Williams, op. cit., p. 84.

The National Facilities Conference report states that windows should be located with regard to the height and arrangement of the lockers. 67

67 National Facilities Conference, Ibid.

According to the Athletic Institute report, dressing room windows should be operable. They make the following recommendations, "The window stool height should be sufficient to clear the tops of the lockers. Windows should be glazed with non-transparent glass. Window frames should be bonderized or galvanized." 68

68 Athletic Institute, op. cit., p. 65.

Modern programs of health education and physical education emphasize the importance of sanitary and well equipped dressing facilities. In schools where physical education periods are of sufficient length to warrant a complete change of clothing, these facilities are essential.
Shower Rooms

Recognized as an important factor in well organized programs of physical education, the shower room represents one of the numerous instances where health education and physical education are closely associated. Williams, Brownell, and Vernier emphasize the importance of the shower rooms in the following statements.

Shower rooms when properly constructed and wisely administered provide one of the best laboratories for inculcating certain health practices of personal cleanliness while individuals enjoy the cleansing and invigorating properties of the bath. By unanimous agreement the shower bath after exercise constitutes an integral part of the physical education period.69


The Athletic Institute Conference participants make the following recommendations.

All persons should have an opportunity to take a shower following participation in physical education classes, school athletics, or community physical recreation activities. The shower room should be directly accessible to the toweling room and the dressing room which it serves. When a shower room is designed to serve a swimming pool, the room should be located so that pupils must pass through the showers prior to entering the pool. The entrance should lead directly to the pool deck. The size of the shower room should be predicated upon the type of showers (group or individual with cubicle) and the number and spacing of shower heads.70

70Athletic Institute, op. cit., p. 68.
Voltmer and Easlingar recommend that 18 square feet be 
allowed for each shower head to accommodate five girls.71


LaPorte reports that the size of the shower room depends 
upon enrollment with from 8-12 feet of floor area allowed for each 
shower head. He also states that evidence shows that approximately 
twenty percent of the showers for girls are booth type while eighty 
percent are of the battery type.72

72 William Ralph LaPorte, op. cit., p. 45.

The College Physical Education Association makes the fol-
lowing recommendations.

Eighty percent of the shower heads should be of the open or 
group type and twenty percent of the individual booth type. 
When booth showers are used, dressing cubicles 3 feet by 3 feet 
should be adjoining and be equipped with a bench and clothes 
hooks of non-corrosive metals. In this case a single shower 
head can serve two to four cubicles. The shower cubicle should 
be 3 by 3 and one-half feet.73


Ventilation for the shower room follows the same recommen-
dations as those given for the locker room. The National Facilities 
Conference participants recommend controlled ventilation for rapid 
removal of excess heat and moisture.74

74 National Facilities Conference, op. cit., p. 61.
The recommendations for lighting the locker room were also advocated for the shower room. The Athletic Institute Conference participants state that moisture-proof fixtures should be installed and that lights in the shower room should be controlled by a switch in the dressing room.  

75 Athletic Institute, op. cit., p. 69.

The types of heating units and temperature range of the locker room are the same as those recommended for the shower room.

The College Physical Education Association has set up a rating scale for suggested surfacing materials used in shower room construction. Three indicates that the material is "good," two is "better," and one is "best." Ratings are given as follows:

Shower room floor
1---ceramic tile
2---abrasive terrazzo (marble)
3---abrasive, non-absorbent concrete

Shower room walls
1---glazed brick or ceramic tile
2---plastics

Shower room ceiling
1---Acoustic tile (no other material rated as satisfactory)  

76 The College Physical Education Association, op. cit., p. 79.
Voltmer and Esslinger also recommend the use of concrete and glazed brick as satisfactory materials for ceilings.  


The Athletic Institute Conference participants listed tile or Portland cement plaster as satisfactory ceiling covering.  

78 Athletic Institute, op. cit., p. 69.

The National Facilities Conference report lists special requirements for the shower room as follows: non-slip floor material with covered base; floor to drain to a gutter not to exceed six inches along outside wall with ample drains; three-eighths inch fall to one foot from center crown; gutters covered with non-corrosive durable grill or grate, flush with floor surface or recessed and removable with key or wrench. It further states that all plumbing should be recessed in the wall except valve and heads if a satisfactory servicing method can be devised, and if not, exposed fittings and pipes should be tight to wall and well-secured.  

79 National Facilities Conference, op. cit., p. 60.

Williams and Brownell, recommend that a vaulted and waterproof ceiling surface be used to prevent moisture from dripping on bathers.  

The Athletic Institute Conference members state that if walls enclosing the shower room are of ceramic, or marble glazed units, they should extend to the ceiling. They believe that covered bases and rounded external corners are desirable. 81

81 Athletic Institute, op. cit., p. 69.

Hughes recommends tile or marble construction for shower room surfaces. 82

82 William Leonard Hughes, op. cit., p. 296.

The participants of the Athletic Institute Conference recommend that floors be surfaced with non-slip ceramic or quarry tile properly sloped toward drains. They make the following statements.

In the construction of the floor drainage, gutters 2" deep and 8" to 10" wide around the perimeter of the shower room provide a sanitary means of drainage. All corners of the gutters should be rounded. Another method for draining, found economical and satisfactory, is to slope the floor to a recess approximately 30" x 30". The recess is covered by a removable non-ferrous grating. 83

83 Ibid.

In regard to flooring for the shower rooms, Hughes suggests the use of tile (ceramic, mosaic, terrazzo, non-slip) laid on concrete with a membrane waterproofing underneath it and up the sides of the walls. He also suggests the use of impervious ceramic tile, preferably an inch square, which will prevent slipping. 84

84 William Leonard Hughes, op. cit., p. 296.
Two methods are commonly used for water control in the shower room. One is the master control, operated by an attendant, which prevents any changing of the flow or temperature of the water by bathers. This is felt to be the less expensive method of installation because it can reduce the number of shower heads. The other method is the individual control.

In regard to showers, the National Facilities Conference report states the following.

The time available for showering, dressing and clothes storage is usually limited to 10-12 minutes. A prescribed number of shower heads is necessary to care for the peak period load in that time. In the group or gang type shower, the girls should be provided with a number of shower heads equal to forty percent of the designed peak load, for example; 40 girls require 16 shower heads. Shower heads should be installed at least 4 feet apart; should be the non-clogging type, and the height of the spray should be adjustable by use of a lock. If stationary heads are installed, these should be placed so that the top of the spray will be shoulder height.85


LaPorte states, "Shower heads should be placed at shoulder height and should be thermostatically controlled to prevent scalding. Individual control of hot and cold water should be provided rather than automatic central control, although a central emergency control is desirable.86

Williams and Brownell make the following statements regarding shower controls.

Where individual control showers are installed, two types of valves are recommended with advocates for each. One group favors the single valve which automatically mixes the hot and cold water according to the number of times the wheel is turned. The other group prefers two valves; one of hot water and the other for cold. Although the single valve type is more convenient, economy of installation and repair suggest the use of two valves. Fewer accidents occur when wheel controls, rather than levers, adjust the flow of water.\(^{87}\)

\(^{87}\)Jesse F. Williams and Clifford L. Brownell, op. cit., p. 286.

According to the College Physical Education Association,

"The shower head should be placed at shoulder height, be individually controlled and be of the adjustable ball and socket type. They should be self cleansing and all fittings should be non-corrosive and tamper proof. Plumbing should be concealed but accessible through access plumbing chambers."\(^{88}\)


Hughes recommends a self-cleaning type of shower head which will supply a stream of varying size and force. He makes the following recommendations.

Dual type valves or the automatic valve control with a chain and a ring on the end which can be pulled down and attached to a hook on the partition is suggested. In the latter type the temperature of the water is controlled by a thermostat. Temperatures may be fixed permanently and not subject to student control. Some showers are set for the warm bath and others for the cold. This type of shower is also economical. It requires
only one pipe and one valve and no mixing adjustment. Moreover, there is no waste of time and water while the temperature of the water is being adjusted. The shower should also be of the adjustable neck wall type, arranged to spray toward the back of the booth. Valves should be placed so they may be operated without getting into the water.89

89William Leonard Hughes, op. cit., p. 296.

The Athletic Institute Conference participants suggest, "Temperature controls are necessary to keep water from exceeding 120°F. Both individual and master controls are needed for all group showers. Cubicle showers should have individual controls."90

90Athletic Institute, op. cit., p. 69.

Hughes states that all hardware in the shower room with the exception of the towel bar should be of brass or bronze. He also states that the towel bar should be of chromium metal or other non-rustable bar upon which the bather may hang the towel while taking a bath.91

91William Leonard Hughes, op. cit., p. 296.

The College Physical Education Association states that the drying room should have the same total square foot floor area as the shower room and be immediately accessible to both showers and dressing room with an entrance to each.92

92The College Physical Education Association, op. cit., p. 27.
The National Facilities Conference participants agree with the College Physical Education Association in regard to size and location of the drying room. They add that if the drying room is used in connection with the swimming pool, hair dryers should be provided for girls. Their suggestions for controlled ventilation and drainage pitch of the floor are the same as those made for locker rooms.93

93 National Facilities Conference, op. cit., p. 60.

Hughes makes the following conclusions in regard to physical education facilities.

One of the major problems in promoting physical education and athletics in schools and colleges is that of providing adequate indoor and outdoor facilities. Every director or teacher must make the best possible use of existing buildings and grounds, and sooner or later he is likely to be confronted with the need to remodel and repair old structures and areas or plan and construct new facilities. Every professional worker in physical education and athletics will contribute to the national movement to improve and extend facilities if in his own institution he corrects, in so far as possible, any wasteful use of existing resources and any errors in the planning of new structures and spaces.94

Chapter III

CRITERIA

In order to interpret the data obtained from the questionnaires, the author accepted the following criteria based on the standards presented in Chapter II.

Field Criteria:
1. The size and number of fields should vary according to the enrollment of the school.
2. Women should have separate play fields.
3. Fields should not be used by more than one class at a time.
4. Fields should be easily accessible and within one block of the locker room.
5. The fields should accommodate such sports as soccer, speedball, softball, fieldball and field hockey.

Individual and Dual Activity Area Criteria:
1. The number of these activity areas should be dictated by the school enrollment.
2. A golf course should be provided.
3. A putting green and a driving range are desirable activity areas.
4. One tennis court should be provided for every 50 students.
5. An archery range should be provided.
6. Track and field facilities should be available.
7. A skating surface should be provided.

Swimming Pool Criteria:
1. An enclosed swimming pool should be on campus to provide for instructional and competitive swimming.
2. The swimming pool should be adjacent to the locker room.

Gymnasium Criteria:
1. The size of the gymnasium is dependent upon enrollment, intended use, and official size of playing courts.
2. The women should have a separate gymnasium.
3. The gymnasium should not be used by more than one class at a time.
Locker Room Criteria:
1. The locker room should be on the first floor.
2. The locker room should be rectangular in shape.
3. Mechanical ventilation should be utilized in the locker room.
4. Fluorescent lighting should be used in the locker room.
5. The locker room should have numerous windows.
6. Radiated heat should be used.
7. All heating units should be recessed or protected.
8. The best floor surfacing for the locker room is tile.
9. Glazed brick or ceramic tile is the best surfacing for the walls.
10. Acoustical tile is the best surfacing material for locker room ceilings.
11. Doors should be constructed of metal.
12. Benches should be permanently fixed and constructed of wood.
13. Separate toweling rooms should be available so that locker rooms are not used for this purpose.
14. The locker room should have floor drains.
15. The locker room should contain toilets and lavatories.
16. Mirrors should be provided in the locker room.
17. Hair dryers should be provided.

Shower Room Criteria:
1. Floor drains should be provided in the shower room.
2. The individual type water control with separate hot and cold adjustments is the best for shower units.
3. Eighty per cent of the showers should be of the gang type and twenty per cent of the private type.
4. Shower rooms should be located on the first floor and adjoining the locker room.
5. The shower room should be rectangular in shape.
6. One should be able to enter the shower room without crossing the gymnasium floor.
7. The floor surfacing should be of tile.
8. The wall surfacing should be of glazed brick or ceramic tile.
9. Acoustical tile is best for the ceiling surface.
10. Fluorescent lighting should be used.
11. Radiated heat should be used.
12. The shower heads should be along the wall at shoulder height.
Chapter IV

PROCEDURE

The survey method utilizing the questionnaire-interview technique was employed in conducting the study. The author believed this to be the most effective method for securing the type of information necessary and various authors have substantiated the use and effectiveness of this technique. Scott states that the general purposes of the survey are to reveal current conditions, to point up the acceptability of the status quo, and to show the need for changes.  


Good and Scates state that the versatility of the questionnaire and the freshness of its returns render it an indispensable instrument for securing current information.  

96 Carter V. Good and Douglas E. Scates, Methods of Research, p. 614.

According to Good and Scates, there are certain types of information that can be secured only by direct contact with people.  

97 Ibid., p. 637.

With the assistance of the author's advisor and the recommendations of a committee of physical education staff members, basic interview questions were formulated (Appendix A). To aid in securing
information from the direct personal interview, a tape recorder was used. This technique allowed the author to record statements of the directors regarding their program facilities. The advantages of tape recording over various forms of note taking and memory construction have been stated by Good as follows.

1. Apart from the operational problems of obtaining proper audibility and voice fidelity, no verbal productions are lost in a tape recorded interview.
2. The tape recorded interview eliminates a major source of interviewer bias—the conscious and unconscious selection on the part of the interviewer of the materials to note down.
3. The tape recorded interview not only eliminates the omissions, distortions, elaborations, condensations, and other modifications of data usually found in written interviews, but it also provides an objective basis for evaluating the adequacy of the interview data in relation to the performance of the interviewer.
4. The tape recorded interview is a liberating influence on the interviewer, because it permits him to devote full attention to the respondent.
5. Other things being equal, the interviewer who uses a tape recorder is able to obtain more interviews during a given period than an interviewer who takes notes or attempts to reconstruct the interview from memory after the interview has been completed.98

98 Carter V. Good, Introduction to Education Research, p. 301.

Since the directors were in the best position to observe their programs from day to day, their subjective judgement and evaluation was regarded as being helpful in determining weaknesses of programs and aided in the selection of evaluative criteria. Comments which had a bearing upon the study were later compiled from the tape recordings. A summary of the tape recordings may be found in Appendix E.
In preparing the first draft form of the questionnaire, the author investigated previous survey studies and consulted with his advisor. After making the suggested corrections, the author submitted the questionnaire to six physical educators for their criticisms, deletions, and recommendations. Those cooperating as a test panel were: The Director of Physical Education and Athletics at South Dakota State University; the Director of Physical Education and Athletics at Brookings High School; three South Dakota State University physical education staff members, and one Brookings High School physical education instructor. The suggestions and corrections of these physical educators were used in formulating the final draft of the questionnaire which appears in Appendix C.

On January 6, 1964, the author sent a postal card introducing the study to the director of women's physical education at each of the eleven schools and requested her cooperation. A copy of the post card is found in Appendix D.

The author's letter of transmittal (Appendix E) and a letter of sponsorship (Appendix F) from Miss Geraldine Crabbs, Head of the Women's Department of Physical Education at South Dakota State University were prepared. The two letters and the questionnaire were mailed on January 20, 1964, to the Director of the Women's Physical Education at each of the schools selected to participate in the study.

The time for a personal interview with each director was arranged through the letter of transmittal and the author contacted
each director by telephone for confirmation of the interview appointment. The questionnaire and the basic interview questions were discussed at length with the respective directors. Good rapport was established between the subjects and the interviewer by use of the post card, letter of transmittal, and letter of sponsorship. The author was cordially received at all schools. All of the questionnaires were returned and all interviews were completed.

Available material was then studied in detail to determine recommended standards for use in establishing criteria to be used in evaluating the existing facilities. The accepted criteria were then used in evaluating the specific areas and items.
Chapter V

PRESENTATION OF DATA

S.D.S.U. had the largest total enrollment with 3,719 and Yankton had the smallest with 370. These schools also had the largest and smallest enrollments of women, with 1,093 at S.D.S.U. and 110 at Yankton.

All schools included in the study offered a major in physical education and required girls to take physical education. Nine schools required four semesters; S.S.C. required three semesters, and S.D.S.U. required two semesters. S.D.S.U. had the largest number of women physical education majors with 52 and S.S.C. had the smallest number with two.

U.S.D. had the largest number of women enrolled in physical education activity classes with a total of 525 and S.S.C. had the smallest number with 40. N.S.C. was the only college that offered coeducational classes and for this reason had only three girls in one activity class. The maximum number that N.S.C. had in one activity class was 29. This was the lowest of any college. Augustana had the largest single class with 70 and the least Augustana had in one class was 55. This was the highest of any school. U.S.D. offered 56 activity classes per week. The number of classes at each of the other colleges was as follows: S.D.S.U., 34; N.S.C., 23; Augustana, 22; B.H.S.C., 17; Beadle, 16; Huron, 8; S.S.C. and Sioux Falls, 6; Yankton, 5; and D.W.U., 4.
All institutions except Huron offered minors in physical education. Huron did not offer a minor curriculum but offered the course hours necessary to meet the minimum requirements of a teaching minor in South Dakota. B.M.S.C. had 36 women physical education minors which was more than the number minoring at any other college. Table I shows the total college enrollments, the number of women students, the number of women in activity classes, and the number of physical education majors and minors at each of the colleges studied.

Table I

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>College enrollments</td>
<td>1650</td>
<td>522</td>
<td>1000</td>
<td>550</td>
<td>415</td>
<td>1678</td>
<td>3719</td>
<td>2920</td>
<td>550</td>
<td>585</td>
<td>370</td>
</tr>
<tr>
<td>No. of women students</td>
<td>750</td>
<td>203</td>
<td>388</td>
<td>221</td>
<td>146</td>
<td>677</td>
<td>1093</td>
<td>926</td>
<td>295</td>
<td>127</td>
<td>110</td>
</tr>
<tr>
<td>No. of women in activity classes</td>
<td>445</td>
<td>130</td>
<td>200</td>
<td>133</td>
<td>81</td>
<td>431</td>
<td>520</td>
<td>525</td>
<td>142</td>
<td>40</td>
<td>70</td>
</tr>
<tr>
<td>Maximum no. per class</td>
<td>70</td>
<td>41</td>
<td>40</td>
<td>42</td>
<td>32</td>
<td>42</td>
<td>40</td>
<td>29</td>
<td>15</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Minimum no. per class</td>
<td>55</td>
<td>26</td>
<td>14</td>
<td>10</td>
<td>4</td>
<td>3</td>
<td>33</td>
<td>20</td>
<td>16</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>No. of P.E. Majors</td>
<td>20</td>
<td>10</td>
<td>36</td>
<td>15</td>
<td>6</td>
<td>23</td>
<td>52</td>
<td>36</td>
<td>12</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>No. of P.E. Minors</td>
<td>21</td>
<td>24</td>
<td>36</td>
<td>13</td>
<td>0</td>
<td>19</td>
<td>15</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Playing Fields

The responses from U.S.D. and Huron indicated that no playing fields were available for use by the women. B.N.S.C. had the largest number of fields available with six. Of the nine institutions having play fields available for women, five had play fields specifically for women only. The response from S.D.S.U. indicated that the largest play area was approximately 80 yards by 50 yards. This was the smallest field reported. A field 300 yards by 300 yards at Sioux Falls was the largest. The response from S.D.S.U. indicated that, within the boundaries of their fields, soccer, speedball, and field hockey could be carried on. All of the other schools that had play fields were able to carry on these sports in addition to softball and field ball. The responses from the institutions having fields indicated that they did not share their fields with other classes during the same period. Augustana, S.D.S.U. and Sioux Falls were the only schools that had play fields located more than one block from the locker room. Table II shows the number of play fields used by the women, the fields specifically designated for women, and the sizes of all available fields of the nine colleges.

Individual and Dual Activity Areas

All institutions, except Beadle, had archery ranges. The amount of available space was indicated by the number of targets which could be set up on these ranges. The total number of targets that
Table II

The Availability and Size of Play Fields for Women

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>For use by women</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>For women only</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>In yards</td>
<td>100</td>
<td>120</td>
<td>100</td>
<td>110</td>
<td>70</td>
<td>50</td>
<td>100</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>total</td>
<td>by</td>
<td>by</td>
<td>by</td>
<td>by</td>
<td>by</td>
<td>by</td>
<td>by</td>
<td>by</td>
<td>by</td>
</tr>
<tr>
<td>300 by</td>
<td>120</td>
<td>80</td>
<td>300</td>
<td>120</td>
<td>100</td>
<td>60</td>
<td>100</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>80 by</td>
<td>80</td>
<td>100</td>
<td>100</td>
<td>120</td>
<td>40</td>
<td>50</td>
<td>100</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>50 by</td>
<td>100</td>
<td>40</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

could be set up at each college was as follows: B.H.S.C., 12; Augustana, 9; U.S.D., D.W.U. and N.S.C., 6; Huron and Sioux Falls, 5; S.D.S.U., 4; S.S.C. and Yankton, 3. S.D.S.U., N.S.C. and Augustana had indoor archery ranges. S.S.C. was the only school having a driving range. No responses indicated that golf courses were owned by the institution; however, S.D.S.U. maintained a golf course in cooperation with the city of Brookings.
No school had track and field facilities designated specifically for women; although, all schools except Beadle, Huron and Sioux Falls had running tracks available. The responses indicated that Huron did not have a jumping pit. Augustana, Beadle, and N.S.C. each had one jumping pit; D.W.U. had four, and all other schools had two.

N.S.C., Augustana, Sioux Falls, and D.W.U. were the only colleges that had ice skating rinks. The responses showed that Huron had one tennis court, Beadle and N.S.C., two; B.H.S.C., S.S.C., D.W.U., Augustana and Yankton, three; U.S.D., five; Sioux Falls, six; and S.D.S.U., nine.

Swimming Pools

B.H.S.C., N.S.C., D.W.U., and U.S.D. were the only institutions that had swimming pools on campus. The institutions that did not have pools on campus used those belonging to private agencies or the city. S.S.C. was the only college that did not have a pool available for use during any part of the year.

B.H.S.C. and D.W.U. were the only schools in which swimming was required for graduation. Five responses indicated that swimming was offered during the regular term and six showed that swimming was offered during the summer term. Table III shows the colleges that offered swimming during the regular term, those that offered swimming during the summer term, and those that did not offer swimming.
Gymnasiums

N.S.C. was the only school that had two gymnasiums available for use by women. All other schools had only one. U.S.D. and Beadle were the only schools that had gymnasiums assigned specifically for use by the women.

The number of team game courts indicated the amount of available floor space. U.S.D. had one volleyball court, B.H.S.C., S.S.C., Augustana, Sioux Falls, Huron and D.W.U., two; Yankton and Beadle, three; S.D.S.U., four; and N.S.C., five. Responses from U.S.D., Beadle, Augustana, Sioux Falls, Huron and D.W.U. stated that only one basketball court was available. B.H.S.C. and S.S.C. each had two, while at S.D.S.U., N.S.C., and Yankton three basketball courts were available.

Since both U.S.D. and Beadle had gyms for women, they were the only schools that did not share the gym with the men's varsity
sports and intramural programs. S.D.S.U. had as many as three
classes sharing the gym at the same time. At times, B.H.S.C. and
Yankton had two classes sharing the gym, but the remainder of the
colleges did not share the gym with any other class. D.W.U. shared
their gym two hours a week with the men’s program, Yankton, seven;
Sioux Falls and Augustana, 15; S.D.S.U., 30-35; and S.S.C., 35.
Others indicated no sharing or were not certain how much, if any,
took place.

Locker Rooms

B.H.S.C., Sioux Falls, and Huron were the only schools that
had their locker rooms in the basement. At all other colleges this
facility was located on the first floor. The locker rooms at Beadle
and Augustana were square in shape but all others were rectangular.
B.H.S.C., S.S.C., and Yankton used blowers in ventilation;
however, all other colleges used the windows. B.H.S.C. was the only
school that had fluorescent lighting in addition to incandescent. All
others used incandescent lighting exclusively. Responses from U.S.D.,
S.D.S.U., Beadle, Augustana, Sioux Falls, Huron and Yankton indicated
that the lighting fixtures were exposed. B.H.S.C., N.S.C., and D.W.U.
had protected lighting and S.S.C. had recessed lighting. S.D.S.U.,
Sioux Falls, and Huron had light switches of the push button type.
All other schools had the flip type switch. All locker rooms had out-
side windows. Locker room lighting was described as "very poor" at

Radiators were used for heating the locker rooms at U.S.D., S.D.S.U., Beadle, N.S.C., Augustana, Sioux Falls, Huron, and D.W.U. Forced air was used at B.H.S.C. and S.S.C. Yankton had both radiators and forced air. B.H.S.C., S.S.C., and N.S.C. were the only schools that had heating units concealed. Of the schools that did not have the heating units concealed, only S.D.S.U. and D.W.U. had the heating units protected. The general temperature was described as "uncomfortably hot" at U.S.D., S.D.S.U., and Augustana. All others rated the temperature as "comfortable."

The floor surface was marble at Augustana and asphalt tile at S.D.S.U. Concrete floor surfacing was used at all the other schools. The wall surface was brick at S.S.C., concrete at U.S.D., and glazed tile at B.H.S.C. and Yankton. All other institutions had wall surfacing of plaster. The ceiling material was tin at U.S.D., composition at Sioux Falls, and plaster at all other colleges. Doors were constructed of metal at B.H.S.C. and of wood at all other colleges.

Surface floor drains were used at B.H.S.C., S.S.C., Sioux Falls, Huron, D.W.U., and Yankton. There were no floor drains in the locker rooms of the other institutions. Beadle, Sioux Falls, Huron, and D.W.U. used the locker rooms also as drying or toweling rooms.
S.S.C. was the only college that had a moisture control system and it was also the only college in which the women's locker room was used for men's physical education or athletics.

The maximum number of students using the locker room at one time was reported as follows: 150 at Augustana, 100 at S.D.S.U., 75 at Beadle, 55 at D.W.U., 40 at N.S.C., 30 at Sioux Falls, 25 at S.S.C., and 20 at B.H.S.C. Huron and Yankton indicated that many women did not use the locker rooms because of their close proximity to the women's dormitory. U.S.D. did not respond.

All institutions used wooden benches in the locker rooms. These benches were permanently fixed at S.S.C., N.S.C., and D.W.U. All schools had mirrors and lavatories in the locker rooms. Beadle and Augustana had no toilets available in the locker room. Responses from S.S.C., Sioux Falls, D.W.U. and Yankton indicated that the toilets were in the locker room proper. B.H.S.C., S.S.C., and N.S.C. were the only schools providing hair dryers.

Lockers and Baskets

Metal lockers were used at all institutions. Baskets were also used at S.S.C., N.S.C., Augustana, and Sioux Falls. The numbers of the 12" x 12" x 36" size lockers used, were as follows: S.D.S.U., 460; N.S.C., 14; Huron, 66; Yankton, 75; Beadle, 24; and Sioux Falls, 18. B.H.S.C. and Augustana did not report the number of this type of locker. The numbers of the 12" x 12" x 72" size lockers used, were
as follows: Beadle, 100; S.S.C., 30; Sioux Falls, 20; and D.W.U.,
53. U.S.D. had this type of locker but did not report the number.
Two women used each locker at U.S.D., Huron, and D.W.U. Of the 460
lockers in use at S.D.S.U., 30 were assigned to two women per locker.
All other schools assigned one locker to each student.

The number of the 12" x 12" x 12" size baskets used at each
college was as follows: N.S.C., 420; Augustana, 300; and Sioux Falls,
84. S.S.C. had 180 baskets of the 13" x 9" x 6" size. Augustana was
the only school at which two women used the same basket. All others
assigned one woman to each basket. Of the colleges using baskets,
S.S.C. was the only one that had lockers for storage of street clothing
in addition to the assigned baskets. The latter was also the only
college that had special ventilation for lockers and baskets.

Racks and hooks for clothing were provided at S.D.S.U.,
N.S.C., Augustana, Sioux Falls, Huron and D.W.U. The responses from
S.D.S.U., Augustana, and Huron indicated there was an inadequate number
of these facilities.

Shower Rooms

B.H.S.C. was the only college that had two shower rooms.
Sioux Falls and Huron had the shower rooms in the basement, while all
other colleges had these facilities on the first floor. U.S.D. and
Sioux Falls were the only schools at which the shower rooms were not
adjacent to the locker rooms. Responses from B.H.S.C., Augustana,
Sioux Falls and Yankton indicated that the shower rooms were within the locker room. At all schools the shower rooms were accessible without crossing the gym floor.

The shower rooms were rectangular in shape at S.D.S.U., U.S.D., B.H.S.C., S.S.C., D.W.U., Huron and Yankton. Augustana, Sioux Falls and Beadle had square shower rooms and N.S.C. had an "L" shaped shower room.

The shower rooms at all institutions had incandescent lighting. The light fixtures were exposed in all shower rooms except those at B.H.S.C. and S.S.C. S.D.U., S.D.S.C., Sioux Falls, and D.W.U. were the only schools that had windows in the shower rooms.

Radiant heat was used in all shower rooms except those of S.S.C. where forced air heating was utilized. B.H.S.C., S.S.C., N.S.C., Augustana and Huron had the heating units concealed, but at U.S.D., S.D.S.U., Beadle, Sioux Falls and Yankton the units were unprotected. The general temperature of the shower room at D.W.U. and Augustana was rated as "uncomfortably hot." All other schools reported a "comfortable temperature" in this area.

Yankton was the only college that used terrazzo floor surfacing in the shower room. Augustana and S.S.C. had tile floors and all other schools had concrete. The material used in wall surfaces of the shower units was reported as follows: concrete at U.S.D., marble at S.D.S.U., tile at Augustana, glazed tile at B.H.S.C., N.S.C., and Yankton, and plaster at Beadle, S.S.C., Sioux Falls, Huron and
D.W.U. The ceiling surface was tin at U.S.D., tile at B.H.S.C. and plaster at all other schools reporting. Sioux Falls did not respond to this question.

Augustana and Beadle had gutter type drains in their shower rooms. All other colleges had surface floor drains. The number of gang type showers used was as follows: Beadle, two; N.S.C., Augustana, B.H.S.C. and Yankton, one. The number of private showers was: D.W.U., three; Sioux Falls, four; Huron and B.H.S.C., five; S.S.C., S.D.S.U., and U.S.D., six.

The number of shower heads ranged from three at D.W.U. to fourteen at N.S.C. Sioux Falls had four, Huron, five; Yankton, U.S.D. and S.D.S.U., six; Augustana and Beadle, eight; B.H.S.C. and S.S.C., eleven.

All institutions had the individual type water control with the shower heads located along the wall. Huron and Sioux Falls were the only colleges that had the shower heads at shoulder height; all others were higher. The mixer type showers were used at U.S.D., S.S.C., N.S.C., and Huron. U.S.D. and N.S.C. were the only colleges not having separate hot and cold adjustments.

Women were required to take showers at B.H.S.C., S.S.C., Sioux Falls and D.W.U. They were not required to take showers at U.S.D., Huron, Beadle, N.S.C. and Yankton because of departmental policy. "Inadequate facilities" was given as the reason for not taking showers at Augustana, S.D.S.U. and Huron.
Related Data

Responses indicated that N.S.C. had three offices for the women staff members; U.S.D., S.D.S.U., Beadle and S.S.C. had two offices and all other schools had one.

U.S.D. and N.S.C. had three full-time staff members; S.D.S.U. and Augustana, two; Beadle, B.H.S.C., S.S.C., Sioux Falls and D.W.U., one. B.H.S.C. had four part-time staff, Augustana, three; Huron and S.D.S.U., two; and Sioux Falls, one. Yankton had no women on their staff. Separate shower facilities and dressing rooms for the staff were provided at U.S.D., B.H.S.C., S.S.C., N.S.C., Augustana and D.W.U.

No college had a physical education lounge or club room. Beadle was the only college that had a physical education library and D.W.U. had the only physical education conference room.
Chapter VI

INTERPRETATION OF DATA

By comparing the existing facilities with the accepted criteria presented in Chapter III, the following facts were obtained.

Play fields: Only four of the eleven colleges met the criterion that women should have separate play fields. All colleges were able to meet the recommendation that fields should not be used by more than one class at a time. The accepted standard stating that fields should accommodate speedball, softball, field hockey, fieldball and soccer was met by all of the colleges having fields except one; this college was unable to carry on fieldball and softball.

Individual and dual areas: Only one college provided a golf course and met this criterion. Only one provided a driving range and one provided a putting green. Ten of the eleven colleges met the criterion that an outdoor archery range should be provided. Only three of the eleven schools provided an indoor range. All institutions met the criterion that tennis courts should be provided but no college had one court for every 50 students. Only four of the eleven colleges met the accepted standard that a skating surface should be provided. Eight of the eleven schools met the criterion that track and field facilities should be available.

Swimming pools: Seven of the eleven colleges did not have swimming pools and, therefore, were unable to meet any of the criteria for swimming pools. The other four schools met the criterion that an
on-campus swimming pool should be provided and that it should be located adjacent to the locker room.

**Gymnasiums:** Only two colleges of the eleven met the criterion that women should have a separate gym. Two colleges did not meet the accepted standard that the gymnasium should be used by only one class at a time.

**Locker rooms:** Only two colleges failed to meet the criterion that locker rooms should be on the first floor. Only one college met the accepted standard that lighting should be fluorescent. Ten schools met the criterion stating that windows should be located in the locker room. Nine colleges met the criterion that radiated heat should be used in the locker room. Three schools met the recommendation that heating units should be concealed. Two of the eight colleges having exposed heating units met the accepted standard that exposed heating units should be protected. Ten of the colleges used floor surfacing other than tile; therefore, they failed to meet the recommendation. None were able to meet the recommendation that ceiling surfaces should be of acoustical tile. Only one school was able to meet the accepted standard that doors should be constructed of metal. All institutions met the criterion that wooden benches should be used, but only three had the benches permanently fixed. Four of the eleven colleges failed to meet the recommendation that a toweling or drying room be provided. Six schools met the criterion that floor drains should be utilized in locker rooms. Only two colleges failed to meet
the criterion that toilets should be available in locker rooms and all schools met the accepted standard that lavatories and mirrors should be provided. Only three of the eleven colleges met the criterion that the locker room should contain hair dryers.

**Shower rooms:** All colleges met the accepted criterion that floor drains should be utilized in the shower rooms. All institutions met the accepted standard that individual type water control units should be provided. Nine of the eleven schools met the criterion that separate hot and cold adjustments should be provided for shower units. Five of the schools met the criterion that gang type showers should be provided. All except two colleges met the recommendation that the shower room should be located on the first floor and the same number met the criterion stating that it should adjoin the locker room. Four of the eleven institutions failed to meet the accepted criterion that rectangular shower rooms should be provided. The accepted standard that the gym floor should not be crossed in order to enter the shower room was met by all of the colleges. Three of the schools met the criterion that tile floor surfacing should be provided. The criterion that glazed brick or ceramic tile should be used as wall surfacing was met by three of the colleges. None of the colleges met the criterion that acoustical tile should be used for ceiling surfaces. No college had fluorescent lighting; therefore, they failed to meet this recommended standard. Only one college failed to meet the criterion that shower heads should be located along the wall, but only two
schools of the eleven met the accepted criterion that shower heads should be at shoulder height.

In order that the status of the play fields, individual and dual activity areas, swimming pools, gymnasiums, locker rooms, and shower rooms could be evaluated, it was necessary to formulate a rating system. Each separate item of the facility areas was checked against the established criterion in order to determine the number of items which did meet the accepted standards. If the responses to the questionnaire indicated that a facility met two-thirds or more of the accepted criteria the author rated it as "satisfactory." The facility received a rating of "fair" if the questionnaire responses indicated that the facility met at least one-third of the criteria, but was unable to meet two-thirds of the criteria. A rating of "unsatisfactory" was given if the facility failed to meet at least one-third of the criteria for a facility area. With this system, the author made the following ratings of each facility area in the eleven colleges.

1. Playing fields at Beadle, B.H.S.C., S.S.C., N.S.C., Sioux Falls, D.W.U. and Yankton were "satisfactory." U.S.D. and Huron were rated as "unsatisfactory" because no fields were available. The play fields at Augustana and S.D.S.U. were "fair."

2. The individual and dual areas at Huron and Beadle were "unsatisfactory." All others were "fair."

3. The swimming pools at U.S.D., B.H.S.C., N.S.C. and D.W.U. were considered "satisfactory." Pools were non-existent at the other colleges and were rated as "unsatisfactory."
4. The gymnasiums at Beadle, S.S.C. and N.S.C. were rated "satisfactory," and those of S.D.S.U., B.H.S.C., Augustana and D.W.U. were "unsatisfactory." All others were given a rating of "fair."

5. The locker rooms at B.H.S.C. and S.S.C. were rated "satisfactory" and at Augustana as "unsatisfactory." At all other colleges the locker rooms were rated as "fair."

6. The shower rooms were "satisfactory" at B.H.S.C., but these facilities were only "fair" in the ten other colleges.

Table IV shows the ratings given to the play fields, gymnasiums, swimming pools, individual and dual areas, locker rooms and shower rooms of each college.
TABLE IV

THE RATINGS GIVEN TO PLAY FIELDS, GYMNASIUMS, SWIMMING POOLS, INDIVIDUAL AND DUAL AREAS, LOCKER ROOMS AND SHOWER ROOMS OF EACH COLLEGE

<table>
<thead>
<tr>
<th>Schools</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Play fields</td>
</tr>
<tr>
<td>Augustana</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>Beadle</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>B.H.S.C.</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>D.W.U.</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>Huron</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>N.S.C.</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>S.D.S.U.</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>U.S.D.</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>Sioux Falls</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>S.S.C.</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>Yankton</td>
<td>Unsatisfactory</td>
</tr>
</tbody>
</table>

Unsatisfactory | Fair | Satisfactory
Chapter VII

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to investigate the present status of physical education facilities for women in the institutions of the South Dakota College Physical Education Association.

Through the study the author attempted to reveal the existing conditions and adequacies or inadequacies of the gymnasiums, swimming pools, playing fields, locker and shower room facilities at the eleven four year colleges and universities offering physical education for women. By using the information obtained in the study directors can examine their facilities in comparison with those of other participating schools. This material can also be helpful in rating their facilities as compared to standards recommended by experts in the field of physical education. It was hoped that the data might be used as a guide for improving and expanding the existing facilities, if improvement and expansion were deemed necessary. The improvement of the college physical education program facilities should promote an improvement in the whole program of physical education in the state of South Dakota.

Summary

The following information was obtained through this investigation.
1. Five colleges had play fields specifically assigned for women. Seven of the eleven colleges had "satisfactory" play fields; two colleges had "fair" play fields, and two colleges had no play fields for women.

2. Individual and dual areas at two colleges were "unsatisfactory." All others were "fair." Ten of the eleven colleges did not provide golf courses. Only one school provided a driving range and one provided a putting green. All colleges had tennis courts, but none had an adequate number. Four of the eleven colleges provided skating facilities. Track and field facilities were provided at eight institutions, but none of the colleges had track and field facilities specifically designated for women. Outdoor archery ranges were provided at ten colleges and three colleges provided indoor archery ranges.

3. Swimming pools were "satisfactory" at four colleges. Seven of the eleven colleges were rated "unsatisfactory" due to no swimming facilities.

4. Gymnasiums were rated "satisfactory" at three institutions, "fair" at four, and "unsatisfactory" at four. A gymnasium was designated specifically for women at two schools and two schools had more than one class scheduled in the gymnasium at the same time.

5. Locker rooms were rated "satisfactory" at two colleges. All others were only "fair." Locker rooms were located on the first floor at nine colleges and nine colleges had rectangular locker rooms.
Three schools had mechanical ventilation. Ten colleges had windows in the locker rooms and only one had fluorescent lighting. Nine schools had radiated heat while two had forced air. Heating units were concealed in the locker rooms of three colleges and two of the eight colleges having exposed heating units in the locker rooms had the units protected. None of the colleges had tile floor surfacing or acoustical ceiling surfaces in the locker rooms. Glazed brick or ceramic tile was used as wall surfacing in the locker rooms at three colleges. Only one school had metal doors on the locker room. All schools had wooden benches in the locker rooms; however, only three had the benches permanently fixed. A toweling or drying room was provided at four institutions. Six colleges had floor drains in the locker rooms. Two schools had no toilets in the locker rooms. Hair dryers were provided in the locker rooms in only three colleges. All college locker rooms had mirrors and lavatories.

6. Shower rooms were rated "satisfactory" at only one school, while all others were "fair." All colleges had drains in the shower rooms and had individual water control units in the showers. Nine colleges had separate hot and cold adjustments for show units. Shower heads were located along the walls at all institutions but only two of the institutions had the shower heads at shoulder height. Gang type showers were used at five colleges. Two colleges did not have the shower room on the first floor and two shower rooms did not adjoin the locker room. The shower rooms were rectangular at four colleges.
and at no college was it necessary to cross the gymnasium to enter the shower room. Three schools had tile floor surfacing in the shower rooms. Glazed brick and ceramic tile were used as wall surfacing of the shower rooms at three colleges. None of the colleges had acoustical tile for ceiling surfaces or fluorescent lighting in the shower rooms. Radiated heat was used in the shower rooms of ten colleges.

Conclusions and Recommendations

It is recommended that the administrators of each college make the following additions and improvements in the women's physical education facilities. If such improvements are not possible in the existing facilities, these recommendations should be considered in planning any new facilities.

Augustana College:

1. Provide thirty additional tennis courts.
2. Increase the number of play fields.
3. Provide a golf course, putting green, driving range.
4. Construct an on-campus swimming pool.
5. Increase the area of the locker and shower rooms following all the accepted locker and shower room criteria of Chapter III.

Black Hills State College:

1. Provide seventeen additional tennis courts.
2. Provide a skating facility.
3. Provide a golf course, putting green, and driving range.
4. Increase the area of the gymnasium.
5. Increase the area of play fields.
6. Locker room floor surfacing should be of tile.
7. Locker room ceiling surfacing should be of acoustical tile.
8. Provide a form of moisture control in the locker room.
9. Provide toilets in the locker room.
10. Shower room lighting should be changed to fluorescent.
11. Shower room floor surfacing should be of tile.
12. Shower room ceiling surfacing should be of acoustical tile.
13. Shower heads should be set at shoulder height.

Dakota Wesleyan University:

1. Provide eight additional tennis courts.
2. Add a putting green and a golf course.
3. Increase the gymnasium area.
4. Locker room lighting should be changed to fluorescent.
5. The locker room doors should be of metal.
6. The floor and wall surfacing of the locker room should be of tile.
7. The locker room ceiling surfacing should be of acoustical tile.
8. A form of moisture control should be installed in the locker room.
9. Shower room lighting should be changed to fluorescent.
10. The shower room floor and wall surfacing should be of tile.
11. The ceiling surfacing of the locker room should be of acoustical tile.

12. Gang type showers should be added to the shower room.

13. Shower heads should be set at shoulder height.

**General Beadle State College:**

1. Provide eight additional tennis courts.

2. Provide a smooth play field surface.

3. Provide an archery range.

4. Provide a golf course, a putting green, and a driving range.

5. Provide a skating surface.

6. Construct a swimming pool.

7. Provide track and field facilities.

8. Locker room lighting should be fluorescent.

9. Locker room heating units should be protected.

10. Locker room floor drains should be installed.

11. Locker room floor and wall surfacing should be of tile.

12. Locker room ceiling surfacing should be of acoustical tile.

13. A form of moisture control is needed in the locker room.

14. Increase the number of benches and have them permanently fixed in the locker room.

15. Toilets should be provided in the locker room.

16. Hair dryers should be installed in the locker room.

17. Shower room lighting should be fluorescent.

18. Shower room should be rectangular in shape.

19. Shower room heating units should be protected.
20. Shower room floor and wall surfacing should be of tile.
21. Shower room ceiling surfacing should be of acoustical tile.
22. Gang type showers should be added.
23. Shower heads should be at shoulder height.

Huron College:

1. Provide seven additional tennis courts.
2. Provide a skating surface.
3. Provide a putting green, driving range and golf course.
4. Construct an on-campus swimming pool.
5. Provide play fields.
6. Provide track and field facilities.
7. Locker room should be located on the first floor.
8. Locker room lighting should be fluorescent.
9. Locker room heating units should be protected.
10. Locker room doors should be metal.
11. Locker room floor and wall surfacing should be of tile.
12. Locker room ceiling surfacing should be of acoustical tile.
13. A form of moisture control should be provided in the locker room.
14. All locker room benches should be permanently fixed.
15. Hair dryers should be installed in the locker room.
16. Shower rooms should be located on the first floor.
17. Shower room lighting should be changed to fluorescent.
18. **Shower room floor and wall surfacing should be of tile.**

19. **Shower room ceiling surfacing should be of acoustical tile.**

**Northern State College:**

1. Provide twenty-one additional tennis courts.

2. Provide a putting green, a driving range, and a golf course.

3. Locker room lighting should be changed to fluorescent.

4. Locker room floor and wall surfacing should be of tile.

5. Locker room ceiling surfacing should be of acoustical tile.

6. Shower room lighting should be changed to fluorescent.

7. Shower room floor and wall surfacing should be of tile.

8. Shower room ceiling surfacing should be of acoustical tile.

9. Showers should be set at shoulder height.

**South Dakota State University:**

1. Provide sixty-five additional tennis courts.

2. Increase the number of play fields.

3. Provide a skating surface.

4. Provide a driving range and a putting green.

5. Construct an on-campus swimming pool.

6. Increase the gymnasium area.

7. Increase the area of the locker and shower rooms following all accepted locker and shower room criteria of Chapter III.
University of South Dakota:

1. Provide **fifty-three additional tennis courts**.
2. Provide a skating surface.
3. Provide a putting green, driving range, and golf course.
4. Provide **play fields**.
5. Increase the gymnasium area.
6. Increase the area of the locker and shower rooms following all accepted locker and shower room criteria of Chapter III.

Sioux Falls:

1. Provide five **additional tennis courts**.
2. Provide a putting green, **driving range**, and golf course.
3. **Provide track and field facilities**.
4. Construct a **swimming pool**.
5. Locker room should be located on the **first floor**.
6. **Locker room lighting should be changed to fluorescent**.
7. **Locker room heating units should be protected**.
8. **Locker room doors should be metal**.
9. **Locker room floor and wall surfacing should be of tile**.
10. **Locker room ceiling surfacing should be of acoustical tile**.
11. A form of moisture control is needed in the locker room.
12. All locker room benches should be permanently fixed.
13. **Hair dryers should be installed in the locker room**.
14. Shower room should be located on the first floor.
15. **Shower room lighting should be changed to fluorescent**.
16. Shower room heating units should be protected.
17. Shower room floor and wall surfacing should be of tile.
18. Shower room ceiling surfacing should be of acoustical tile.
19. Gang type showers should be provided.

Southern State College:

1. Provide eight additional tennis courts.
2. Provide a putting green, driving range, and golf course.
3. Provide a skating surface.
4. Construct a swimming pool.
5. Locker room floor surfacing should be of tile.
6. Locker room ceiling surfacing should be of acoustical tile.
7. Men's physical education classes and athletics should not use the women's locker rooms.
8. Shower room floor surfacing should be of tile.
9. Shower room ceiling surfacing should be of acoustical tile.
10. Gang type showers should be added.
11. Shower heads should be at shoulder height.

Yankton College:

1. Provide four additional tennis courts.
2. Provide a putting green, driving range, and golf course.
3. Provide a skating surface.
4. Construct a swimming pool.
5. Locker room lighting should be changed to fluorescent.
6. Locker room radiators should be protected.
7. Locker room doors should be metal.
8. Locker room floor surfacing should be of tile.
9. Locker room ceiling surfacing should be of acoustical tile.
10. All locker room benches should be of wood and permanently fixed.
11. Hair dryers should be installed in the locker room.
12. The shower room should have fluorescent lighting.
13. Shower room ceiling surfacing should be of acoustical tile.
14. Shower heads should be at shoulder height.

Recommendations for Further Study

1. A study of the facilities of the men’s department of physical education to find if there may be similar problems between facilities of men and women in the colleges of the South Dakota College Physical Education Association.

2. A comparison of the physical education facilities of the state supported institutions with those of private institutions in South Dakota to find which may have the more adequate facilities.

3. A study comparing the facilities of the five South Dakota colleges having the smallest enrollments with those of the five South Dakota colleges having the largest enrollments to find which may have the more adequate facilities.
REFERENCES CITED


APPENDIX A

BASIC INTERVIEW QUESTIONS

1. Do the present outdoor facilities for the women's physical education program satisfactorily meet the needs and demands?
   a. What needs and demands are not being met?
   b. As you see it, what improvements and additions are needed?

2. If you have a pool, does it meet the needs of the women's program?
   a. What needs and demands are not being met?
   b. Are any repairs or improvements and additions needed?

3. Does the present gymnasium satisfactorily meet the needs of the women's program?
   a. What needs and demands are not being met?
   b. As you see it, what improvements and additions are needed?

4. Do you feel that the present locker rooms and shower rooms used by the women are in adequate condition as far as size, safety, and sanitation?
   a. If there are any problems, what do you suggest as a means of improvement?

5. Who is responsible for cleaning the women's locker and shower rooms?
   Who is responsible for cleaning the gymnasium?
   a. Is the person a matron, a student, or a janitor?

6. Do you have separate equipment storage rooms, or do you share with the men?

7. Are most facilities shared with the men's program?
   a. Do you feel that this is an advantage or disadvantage?

8. Do you feel that the major classes, service classes, and the intramurals are limited by the facilities which are available at the present time?
   a. How is the program limited? For what is there a need and demand?
   b. Where do intramurals meet?

9. Do you feel that a limitation of equipment may be your problem rather than a limitation in facilities?
10. Have you any specific plans for changes, additions, or improvements of playing fields, swimming pools, gymnasiums, or locker and shower rooms?

11. Will the present facilities be adequate with an increased enrollment?

12. Are there any problems I haven't asked about that you would like to mention?
APPENDIX B

RESPONSES OF THE DIRECTORS

The responses of the directors to the interview questions were recorded by means of a tape recorder. The directors were in a position to observe the programs from day to day and the subjective judgment and evaluation of their facilities were regarded as authoritative.

Miss Ruth Sparhawk, Augustana, stated that their most serious problem was a lack of space and that they were carrying on a program of operation strangulation. The facilities were very inadequate and were neither meeting the needs of the student load nor were the facilities adequate for a well rounded program. She stressed the need for more tennis courts and play fields and the addition of a golf green and swimming pool. The gym, locker rooms, and shower rooms were not large enough to meet their needs. They had to assign two women to each basket. A man was doing a very fine job of cleaning the building. The storage area for the equipment and supplies was crowded but separate from that of the men. The sharing of facilities with the men's program was strictly a disadvantage because this left little time and few facilities for the women. The majors' classes, service classes, and intramurals were limited because of the lack of facilities. There was nothing on the drawing board for an immediate alleviation of their problems; however, an area for a fieldhouse had
been selected and a blueprint drawn. An increased enrollment would put more pressure on the already overcrowded facilities. Funds for the necessary expansion were needed.

Miss Leota Van Ornum, Beadle, said that the size and area of the playing fields were quite adequate but that the facilities on the fields and the field surfaces were not satisfactory. There was no swimming pool at the college; however, they were able to use the city pool in the summer time. There was no sharing of facilities because the women had a gym and play fields assigned specifically for their use. The gym, locker and shower rooms were adequate in size and well kept by the custodial staff. The only problem in the shower room was the extreme hardness of the water. The majors' classes, service classes, and intramurals were not limited by facilities. A substantial growth in enrollment would be possible before the facilities were overcrowded. She concluded by saying that the Women's Physical Education Department had a fine relationship with the administration and that there were plans for future improvements. It was her belief that their facilities allowed for satisfactory work.

Miss Mary Stewart, B.H.S.C., reported that the addition of two playing fields would make their facilities adequate. The fact that students from other colleges came to B.H.S.C. to get their swimming indicated a need for swimming pools at other institutions. The gym, locker rooms, and shower rooms were well kept by male janitors and met their needs very adequately. The only sharing of facilities was in
the dance and swimming program and she saw this as an advantage. The need for two more fields was the only limitation to the majors' classes, service classes, and intramurals. With the addition of two playing fields, the facilities could stand an increase in enrollment and still be adequate.

Mrs. Tage Wood, D.W.U., said that the outdoor facilities were adequate and that they had a field specifically for women. For the student load their pool was adequate; however, it had a low ceiling which they were planning to have raised to allow for better diving practice. The gym was not large enough to allow for a regulation basketball court. This facility was shared with the men and did not seem to create a problem. The locker and shower rooms were adequate and had room for additional lockers. A male janitor was responsible for cleaning the building. The storage rooms had to be shared by men and women and did not provide adequate space for storing large equipment. The size of their gym was a limitation to the majors' classes, service classes, and intramurals. Their plans for improvements were to expand the gym and to raise the swimming pool ceiling. With these improvements, it was felt that an increased enrollment could be adequately handled.

Mrs. Edna Barton, Buron, stated that they had neither outdoor play fields nor a swimming pool. They used the country club pool during the summer; however, it was located four miles from the college. She believed that their gym was terribly over-worked, because it was
shared by the men's program, the music, and the drama departments. The gym was large enough for her classes. The locker and shower rooms were adequate in size but the plumbing was poor and in need of repair. The gym, locker rooms and shower rooms were kept very clean by the janitorial staff. The equipment storage space was not adequate.

Majors' classes, service classes and intramurals were limited by the lack of playing fields. The gym would be of adequate size for an increased enrollment, if the drama and music departments could be moved to another building. She knew of no plans in the future that would alleviate the problem of the crowded gym.

Miss Hildred Wolfe, N.S.C., reported outdoor facilities were adequate when the city facilities were used. The swimming pool, even though small, was adequate for their enrollment. The gyms, locker rooms, and shower rooms were of adequate size and in satisfactory condition. These were well kept by male custodians. The women had adequate storage space which was separate from the men. Many facilities were shared by the men and women because much of their program was coeducational. This sharing was thought to be advantageous. The majors' classes, service classes, and intramurals suffered no limitations because of a lack of facilities. The facilities were adequate for the existing enrollment. With an increased enrollment the facilities would no longer be sufficient. The college had 35 acres of land on which it could expand if funds were provided.
Miss Geraldine Crabbe, S.E.S.U., reported that the outdoor facilities met the demands in the fall of the year but in the spring the varsity and intramural sports for men left very little available space for women. Field needs were: a safer place for the archery range, more space for softball, a running track and pits. The college had no swimming pool and the city pool was used in the summer session physical education program. In some instances, the program content had to be determined by existing facilities and available space rather than by the needs and interests of college women. Classes were held in very small areas, with as many as three classes being held at the same time on the gym floor and balcony. This made it extremely difficult for students to hear and for instructors to conduct classes. The locker and shower rooms were not large enough and were unsafe because of uncovered radiators and the presence of pipes across the door ways. Pipes around the edge of the floor were not conducive to cleanliness. The shower room walls and floor were very difficult to clean because of the type of surfacing. Needs for the locker and shower rooms were: additional space, better flooring, lighting, heating, shower units, and a ventilation system. Student help was not doing an adequate job of cleaning in the shower and locker room; however, the gym floor was kept clean. Storage space was shared with the men. The lack of sufficient space for storage of equipment in current use created a real problem. The majors' classes, service classes and intramurals were being limited by the lack of facilities and space.
Sharing facilities with the men's program was not a serious problem; the real problem was a lack of space. The women had no space specifically designated as women's areas. They had no place for track and field and they had been forced to discontinue women's intramural softball because the area needed for the women was also needed by the men. Funds had been allotted for remodeling and expanding the locker and shower rooms. She saw the problem of inadequate facilities becoming even more complicated as enrollment increased because they were already overcrowded.

Miss Ruth Sevy, U.S.D., stated that their outdoor facilities were very inadequate because of the increased enrollment and the fact that they had no play fields. A pool was available in the men's armory but it was not of sufficient size. A women's gym of insufficient size was available. The shower and locker rooms were inadequate. The building was kept clean by a woman janitor. Although storage rooms were shared by men and women, this practice seemed to create no problems. The fact that the woman's gym was used by several men's classes presented no problems. Majors' classes, service classes, and intramurals were limited by the lack of play fields. She knew of no immediate plan to alleviate this problem. She said that the addition of a fieldhouse for men would give the women the use of the armory. Facilities at U.S.D. were overcrowded and an increased enrollment would put more pressure on the overcrowded conditions.

Mrs. Mary Jane Weissbecker, Sioux Falls, said that the outdoor facilities at the college were inadequate but that they were able
to utilize surrounding fields to aid their program. They did not have a pool but were able to use two community pools. The gym was of adequate size but lacked dance facilities. The locker and shower rooms were inadequate and were in need of remodeling. Two students, as janitors, were doing a fine job of keeping the building clean and sanitary. The equipment rooms provided adequate space and were shared with the men's program. Many facilities were being shared with the men's program. This practice caused no problems and was looked upon as advantageous. Because of their fine relationship with Augustana and the community, they were able to utilize many facilities; therefore, the majors' classes, service classes and intramurals did not seem to be limited. It was the second year for women's physical education at Sioux Falls and they were constantly improving their facilities. The college administration, looking well to the future, was planning to improve locker and shower rooms and to add new facilities to handle an anticipated increase in enrollment.

Miss Barbara Hoffman, S.S.C., stated that since their enrollment of women was small, the outdoor facilities were adequate and met the needs of the program. They did not have a swimming pool at the college and there was no pool available within the community. The gym, locker rooms, and shower rooms were only a few years old and were in excellent condition. The building was well kept by a male custodian. They had separate storage rooms for small equipment and shared rooms with the men for the large equipment. This caused no problems because
both areas were of adequate size. There were no problems in sharing with the men’s program and the facilities did not limit the majors’ classes, service classes, or intramurals. She concluded by saying that their facilities would still be adequate with an addition of 500 students.

Mr. Carl Youngworth, Yankton, reported that their outdoor facilities were adequate. They did not have a pool at the college but there was one available in the city for summer use. The gym, locker rooms and shower rooms were quite adequate and he believed they could handle twice the number of women presently enrolled. A male janitor was doing an adequate job of cleaning. There were separate storage rooms for use by the women. The sharing of facilities by the men and women was not causing a problem and was looked upon as an advantage. He stated that an additional 200-250 students would still find their facilities adequate. Their problem was that they did not have a qualified woman as director of women’s physical education.
APPENDIX C

QUESTIONNAIRE

A STUDY OF THE STATUS OF THE PHYSICAL EDUCATION FACILITIES FOR WOMEN IN THE COLLEGES OF THE SOUTH DAKOTA COLLEGE PHYSICAL EDUCATION ASSOCIATION

DIRECTIONS

Please answer the following questions by indicating the number or checking.

I. INTRODUCTION

1. What is the name of your school?

2. What is the total enrollment?

3. How many women are enrolled?

4. Is the school a state supported institution? YES NO
   If answer is "no," by whom is it supported?

5. What is the total number of women in physical education activity classes?

6. What is the maximum number of women in one activity class?

7. What is the minimum number of women in one activity class?

8. What is the total number of women's classes per week?

9. How many hours per week do intramurals for women meet?

10. Is physical education required for graduation? YES NO
    If answer is "yes," how many semesters are required?
    1, 2, 3, 4, 5, 6, 7, 8.
11. Does the department offer a major in women's physical education? ________________  YES  NO ________________

If answer is "yes," how many women majors are enrolled?

12. Does the department offer a minor in women's physical education? ________________  YES  NO ________________

If answer is "yes," how many women minors are enrolled?

II. OUTDOOR FACILITIES

A. Playing Fields

1. How many playing fields are available for use by the women? ________________

2. Are any of these fields assigned for women's program only? ________________  YES  NO ________________

3. What is the approximate size of these fields?
   __ yds. by __ yds.
   __ yds. by __ yds.
   __ yds. by __ yds.
   __ yds. by __ yds.
   __ yds. by __ yds.
   __ yds. by __ yds.
   __ yds. by __ yds.

4. Which of the following activities can be conducted within the limits of these fields? (Check) Soccer ____, Speed-ball ____, Softball ____, Field Hockey ____, Field Ball __

5. Are the fields shared with any other classes during the same period? ________________  YES  NO ________________

   a. If "yes," how many periods a week are they shared?

   b. Are they shared with a girls' or boys' class?
      Girls ____, Boys ____, Both ____
6. How far are the fields from the locker rooms? Maximum distance 1/4 block____, 1/2 block____, or ____ block(s).

What is the minimum distance? 1/4 block____, 1/2 block____, or ____ block(s).

B. Individual and Dual Sports Areas

1. Do you have an outdoor archery range? YES__ NO__
   a. How many do you have?
   b. How many targets can be set up?

2. Do you have an indoor archery range? YES__ NO__
   a. How many do you have?
   b. How many targets do you have?

3. Do you have outdoor tennis courts? YES__ NO__
   a. How many do you have?

4. Do you have ice skating rinks? YES__ NO__
   a. How many do you have?

5. Do you have putting greens? YES__ NO__
   a. How many do you have?

6. Do you have golf driving cages? YES__ NO__
   a. How many do you have?

7. Do you have golf driving ranges? YES__ NO__
   a. How many do you have?

8. Do you have golf courses? YES__ NO__
   a. How many do you have?
   b. College owned
   c. City owned
   d. Privately owned
   e. Maximum distance from locker room
   Minimum distance

9. Do you have track and field facilities? YES__ NO__
   a. How many running tracks?
   b. How many jumping pits?
   c. Do the women have a track designated for their use only? YES__ NO__
III. SWIMMING POOLS

1. Is a pool available for swimming instruction? YES___ NO___

If answer is "yes," please answer the following:

a. How many pools are available? --------------------------- YES___ NO___
b. Is the pool college owned? YES___ NO___
c. Is the pool city owned? YES___ NO___
d. Is the pool privately owned? YES___ NO___
e. Is swimming a requirement for graduation? YES___ NO___
f. If off campus, what is the approximate distance from the college to the pool? Minimum __________ Maximum __________

g. Does the school offer swimming during the regular term? YES___ NO___
h. Does it offer swimming in its summer school program? YES___ NO___

IV. INDOOR FACILITIES

A. Gymnasium for Field House

1. How many gyms do the women use? Yes___ No___
   Is there a gym designated for women's physical education only? YES___ NO___

2. How many volleyball courts can be set up at one time? __________

3. How many basketball courts can be set up at one time? __________

4. Do the women's classes share the gym with any other classes? YES___ NO___

If answer is "yes," please answer the following.

a. Is it a girls' class? YES___ NO___
b. Is it a boys' class? YES___ NO___
c. Is it shared with more than one class at a time? YES___ NO___
d. How many classes share it at the same time? __________
e. How many times does this occur in a week? __________
9. Is the gym used for women's physical education also used for the men's varsity sports or intramural program? 
   YES ___ NO ___

If the answer is "yes," please answer the following.

a. Approximately how many hours per week does this occur? 
   ____________________________

b. Is another gymnasium available for the women's program during this time? 
   YES ___ NO ___

B. Locker Rooms

Where are the locker rooms located? Basement ___, First Floor ___, Second Floor ___, Other ____________________________

2. What is the general shape of this facility? Square ___, Rectangular ___, "L" ___, Other ____________________________

3. What is the type of ventilation? Circulating blower ___, Exhaust fan ___, Adjustable windows ___, Other ____________________________

4. What is the type of lighting? Incandescent ___, Fluorescent ___,
   a. What is the type of light fixture? Recessed ___, Exposed ___, Protected ___,
   b. What is the type of light switch? Flip type ___, Key ___, Push button ___, Other ____________________________
   c. How many windows does it have? ____________________________

5. Would you describe the lighting in the locker room as excellent ___, good ___, poor ___, or very poor ___?

6. What generally is the temperature? 
   Usually comfortable ___, Usually uncomfortably hot ___, Usually uncomfortably cold ___,

7. What type of heating unit is utilized? 
   Radiators ___, Forced air ___, Other ____________________________

   a. Are the heating units and pipes concealed? 
      YES ___ NO ___
b. If heating units and pipes are exposed, are they protected? YES ___ NO ___

8. What is the material of the floor surface?
   Concrete ___, Tile ___, Asphalt ___, Marble ___, Pulverized steel and concrete ___, Wood ___, Other ____________

9. Does the locker room have a floor drain? YES ___ NO ___
   a. If "yes," what is the type?
      Surface ___, Gutter ___, Other ____________

10. What is the material of the wall surface? Plaster ___, Concrete ___, Brick ___, Tile ___, Glazed tile ___, Glazed brick ___, Marble ___, Other ____________

11. What is the material of the ceiling surface? Plaster ___, Tile ___, Concrete ___, Other ____________

12. What material is used in the door construction?
    Wood ___, Metal ___, Other ____________

13. Is the locker room also used as a drying room or towel-
    ing room? YES ___ NO ___

14. Does the locker rooms have any form of moisture control?
    YES ___ NO ___

15. Is the women's locker room used by men's physical education classes or men's athletics? YES ___ NO ___

16. What is the maximum number of women using the locker room at one time? (This may include two classes, since one may be showering and another may be dressing for class). __________

17. How many benches are there in the locker room?
    a. Of what material are the benches made? Wood ___, Metal ___, Other ____________
    b. Are they permanently fixed ___, or movable ___?

18. How many mirrors does the locker room have? __________

19. How many lavatories does the locker room have? __________
20. How many toilets does the locker room have? __________
   a. Are the toilets within the locker room proper?  YES  NO

21. How many hair dryers does the locker room have? _______

C. Lockers and Baskets

1. Are lockers or baskets assigned for storage of student physical education clothing? Lockers____, Baskets____
   If lockers are used, please indicate the following.
   a. Of what material are the lockers constructed?
      Wood___, Metal___
   b. What size are the lockers?
      Full length (12"x12"x72") number____
      Half length (12"x12"x36") number____
      Others____________________________ number____
   c. How many women use each locker?
      One____, two____, three____
   If baskets are used, please indicate the following.
   a. What size are the baskets?
      (12"x12"x12") number____
      (6"x12"x36") number____
      Others____________________________ number____
   b. How many women use each basket?
      One____, two____, three____
   c. Are lockers used also for street clothing during classes?  YES  NO

2. Is there special ventilation for lockers or baskets?  YES  NO

3. Are racks provided for clothing not put in lockers and baskets during class time?  YES  NO
   a. Are there an adequate number?  YES  NO
   b. Of what material are they constructed?
      Wooden frame____, Metal frame____, Wall hangers____

D. Shower Rooms

1. What is the location of the shower room?
   Basement____, first floor____, second floor____, Other____________________________
a. Is it adjoining the locker room?  YES  NO
b. Is it in the locker room?  YES  NO
c. Can you enter and exit without crossing the gym floor?  YES  NO

2. How many shower rooms are there?  

3. What is the shape of the shower room?  
   Square___, rectangular___, "L"___, Other_______

4. What is the type of lighting?  
   Incandescent___, fluorescent___
   a. What is the type of light fixture?  
      Recessed___, exposed___, protected___
   b. Does it have windows?  YES  NO

5. Is the temperature usually comfortable___, uncomfortably hot___, or uncomfortably cold___?

6. Is the area heated by radiators___, forced air___, or other means___?
   a. Are all heating units and pipes concealed?  YES  NO
   b. If the heating units and pipes are exposed are they protected?  YES  NO

7. Of what material is the floor surfaced?  
   Concrete___, tile___, wood___, asphalt___, marble___, pulverized steel and concrete___, other_______

8. What is the type of floor drain?  Surface___, gutter___, none___, other_______

9. What is the material of the wall surface?  
   Plaster___, concrete___, tile___, brick___, glazed tile___, glazed brick___, marble___, other_______

10. What is the material of the ceiling surface?  
    Plaster___, tile___, concrete___, other_______

11. What is the type of shower?  
    Gang___, number___
    Private___, number___
    Other_______, number___
a. How many shower heads are there in each shower room?

b. Are the shower heads located along the wall___, in the corner___, from the ceiling___, or other___?

c. Are the shower heads located at approximately shoulder height___, higher___, or lower___?

d. What is the type of water control? Central____, or individual____

e. Is it the mixer type? YES____ NO____

f. Does it have separate hot and cold adjustments? YES____ NO____

12. Are women required to take showers? YES____ NO____

If answer is "no," is this because of inadequate facilities____, insufficient time____, or departmental policy____?

13. What is the maximum number of women using the shower at one time?

E. Other Facilities

1. How many offices are there for women staff members?

   a. How many full-time staff members are there?

   b. How many part-time staff members are there?

2. Do women staff members have shower and dressing rooms separate from those used by the women students? YES____ NO____

3. Do the physical education facilities include any of the following?

   a. Physical education lounge or clubroom YES____ NO____

   b. Physical education library YES____ NO____

   c. Physical education conference room YES____ NO____


THANK YOU FOR YOUR COOPERATION

Would you like a copy of the results of the study? YES____ NO____

COMMENTS:
APPENDIX D

PRELIMINARY POST CARD

Dear [Name],

As a graduate student majoring in physical education at South Dakota State University, I am writing a thesis. The study concerns women's physical education facilities in the colleges of the South Dakota College Physical Education Association.

In order for my study to be effective and of a benefit to you and your school, I need and would sincerely appreciate your cooperation.

Pertinent information concerning my study will be sent to you very soon.

Sincerely,

Harold R. Mansheim
1203-8th St.
Brookings, South Dakota
APPENDIX E

LETTER OF TRANSMITTAL

January 19, 1964

Mrs. Edna Barton
Director of Women's Physical Education
Huron College
Huron, South Dakota

Dear Mrs. Barton,

As a part of the master's degree requirement, I am making a questionnaire-interview type study of the status of women's physical education facilities in the South Dakota Colleges belonging to the College Physical Education Association.

I realize that you are very busy at this time of the college year but I hope that you will be able to help. I am sure this study can be of benefit to the colleges involved. I will be in your area January 29, 1964 and would like to meet with you. The interview will take approximately 30 minutes. Would this be possible? I would appreciate a reply indicating a time that is agreeable to you.

Enclosed is the questionnaire which I would like you to fill out. Could you have this completed by the interview date? The purpose of the questionnaire is to gain information concerning existing facilities in order to compare them with recommended standards.

In order to complete this study I need the data from your school and, if you desire, a copy of the results will be made available to you.

Your cooperation will be appreciated. Thank you for your help.

Sincerely,

Harold R. Mansheim
1203-8th St.
Brookings, South Dakota
Mrs. Edna Barton  
Director of Women's Physical Education  
Huron College  
Huron, South Dakota  

Dear Mrs. Barton,

Harry Mansheim, one of our graduate students, is conducting a questionnaire-interview type of study on the status of physical education facilities for women in the South Dakota Colleges belonging to the College Physical Education Association.

I believe that such a study can benefit the colleges involved and that an examination of this information will be worthwhile. Your cooperation in this study will be appreciated.

Sincerely,

Geraldine Grabbs  
Head, Dept. of Physical Education for Women  
South Dakota State University  
Brookings, South Dakota