Chapter 1

INTRODUCTION

Throughout recorded history, man has had to come to terms with and to accept the fact that there are limits to his physical performance. With evolution, however, there have been many fundamental changes in this capacity. Man's ability to adapt to changing environmental conditions offers the possibility of improving the limits of his performance. The extent of such processes of adaptation can be seen during residence at altitudes or under conditions of extreme temperatures. Also, as a result of training athletes show considerable improvement in their capacity to perform.

Although it is very easy to measure the limitations of man's performance capacity, the fundamental questions is which step in the regulation or transfer of energy inhibits the organism's physical development. There is a great deal of research on this problem but the results permit only an overview from the standpoint of one of several interrelated disciplines; this is insufficient for obtaining valid answers to the question stated above. For this reason, it seemed necessary to have scientists from different disciplines meet with one another to discuss their findings, some of which often appear to be contradictory. In this way
it may be possible to clarify questions of interest to physiologists, biochemists, physicians involved in the physiology of exercise and work, as well as clinicians\textsuperscript{1}.

Undoubtedly, the improvement of sport facilities has been one of the major contributions to the improvement of athletic achievements. One only has to remember the conditions of the track under water on which Emil Zatopek raced Gaston Reiff in the 5000-m final in the London Olympic Games of 1948 to appreciate what a modern track made out of synthetic material means to the athlete. Synthetic materials for tracks and fields were first put into use only about 15 years ago in the United States, yet, in spite of their high cost, they are found in most of the major facilities of the world. In the United States alone, about 200 artificial turf installations have been made since 1965. The same goes for the improvement of athletic equipment. About 40 years ago, Cornelius Warmerdam was considered a wonder athlete when, using a bamboo pole, he established a world record of 15 feet, 8.5 inches in the pole vault. With today's Fiberglass poles, many high school students outdo Warmerdam's feat, and with further improvements in the poles, the record goes higher and higher\textsuperscript{2}.

Planning maintaining, and utilizing spaces, structures, and fixtures for optimal administrative, instructional-recreational, or service functions should be based on principles. Among principles commonly used in this area are accessibility, departmentatization, isolation, utilization, economy, and provision

\textsuperscript{1} J.Kule, \textit{Limiting Factors of Physical Performance} ed. (Germany: Georg Thieme Publishers Stuttgart, 1971) p. XI.
for safety and sanitation. Equipment and supplies should be purchased with principles of quality and quantity in mind. Durability, utility, and indispensability are factors for which principles and standards are needed.

In considering athletic facilities it will be assumed that the problems confronting those in charge of the athletic program deal chiefly with layout and maintenance rather than with construction. Separate treatment would be needed for the consideration of construction data and plans pertaining to the gymnasium, swimming pool, or stadium. Strictly speaking, these are engineering problems concerning which the physical education and athletic men in a school system should be sought for consultation. Experiences that they have had in teaching classes or in coaching teams, as well as observation of outstanding facilities in schools they have worked in or visited, are the best sources of information to be passed on to architects or engineers.

Facilities for athletics, recreation, physical education, health education and camping programs are a necessary ingredient in the modern community. The distribution, location and size of these facilities are closely related to the total community pattern. Such facilities should be planned in relation to the other physical, social and economic characteristics of the community. The basis of each community's master plan must be a study by the community of its own needs. Facilities should be planned with due regard for the community's existing

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or potential resources. Planning for the joint development and use of facilities requires predetermined agreement between agencies on policies and responsibilities. Change is ever present and must be recognized in planning. The planning of a comprehensive system of interrelated facilities for athletics, recreation, physical education, health education, and camping programs, irrespective of the administrative auspices of the programs, should be undertaken on the basis of the following units or areas.\(^5\)

Both architects and users of athletic facilities agree that the most efficient layout for a building or complex of buildings has not yet been found. The same statement could be made in terms of finding the one most economical system of construction for wide-span structures or the one ideal playing surface. New ideas, new methods, and new materials are being developed every day. If facilities are to be designed for the future, the basic standards of measurement should encompass the metric system. Thus the design for a new track, or pool or field house should be in terms of meters as well as feet and inches.\(^6\)

There are many new trends in facilities for physical education programs. New paving materials, new types of equipment, improved landscapes, new construction materials, new shapes for swimming pools, partial shelters, and synthetic grass are just a few of the many new developments. Combination indoor-outdoor pools, physical fitness equipment for outdoor use, all-weather

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tennis courts, and lines that now come in multicolor for various games and activities are other new developments.\(^7\)

Physical education is important for the physical fitness and efficiency, mental alertness and the development of certain qualities of character. The programme of physical education, as in force today needs to be re-examined and redesigned in the light of certain basic principles of child growth and development.\(^7\)

The Secondary Education Commission made physical education compulsory in all the stages of school curriculum. However, instruction and participation in the area continued to be restricted to a few students in a school. The central advisory board of physical education and recreation\(^8\) has reported.

"There are very few schools that provides physical education for all the pupils every-day. The usual excuse is that academic load is heavy and the school hours are ill adopted for physical education, with different emphasis given in different school".

Physical Education is the phase of education that is concerned with the physical development and well-being of the individual and through which the participants are influenced, in his mental social and moral qualities. The only distinction between physical education and education lies in the fact that physical education is concerned largely with type of situations and responses.


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\textbf{Statement of the Problem}

The purpose of the study was to evaluate the sports performance and facilities of physical education and sports in universities of Rajasthan.

\textbf{Delimitations}

1. The study was delimited to the different universities of Rajasthan.

2. The study was further delimited to the sports performance and facilities of physical education and sports in universities of Rajasthan.
Limitation

Through sincere efforts were made to elicit accurate responses, however insincere responses of the respondents in the collection of data that might have had effect on study was considered as a limitation for the study.

Hypothesis

It was hypothesized that universities of Rajasthan are not having adequate physical education and sports facilities in relation to their performance.

Definitions and Explanation of Term

Facilities

It includes playing fields, provision of teaching personnel, gymnasium, swimming pool, equipment, sports library, amount spend last year for physical education and sports.

The word facilities in physical education have a changing definition according to the needs of the students and status of the institution. For the purpose of this study the term ‘facilities’ refers to playing materials, equipment, playing areas, swimming pools and partial shelters etc.
"Promoting that promote the case of any action, operation, transaction or course of conduct usually used in plural."\textsuperscript{12}

In the light of above said this study may be of great significance in the following ways:

1. The study may offer valuable advise for sport sports promoters and organizers.

2. The study may help the coaches and teachers of physical education to have a clear picture about existing facilities, and sports performance at different universities of Rajasthan.

3. On the basis of the findings of this study the State Government may make required changes in planning and formulate policies for the development of sports in the state.

4. The study may also act as eye opener for State Sports Director, University Directors of Physical Education in terms of existing facilities and performance.

5. The study may also motivate researchers and planners to conduct further researches in similar direction by taking more broad view.

6. The study may also provide helpful guidelines for the physical education teachers working in different Universities of Rajasthan with the existing infrastructure in the state.

\textsuperscript{12} Webster 3\textsuperscript{rd} New International Dictionary (Springfield: G and C Merriam Company) p. 812.
7. It may enlighten the teachers of physical education in having a clear picture of existing, facilities in different Universities of Rajasthan.

8. The study may also motivate the government to enable them to make suitable changes in their plans accordingly.

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