

New England Conference of Educational Workers

**A Provisional Schematic Study
of Leading Topics in Physical
Education**

BY

EDWARD MUSSEY HARTWELL

Director of Physical Training, Boston Public Schools



COPYRIGHT BY
EDWARD MUSSEY HARTWELL
BOSTON, MASS.
1894

THE following scheme embodies the results of the writer's attempt to arrange the leading topics pertaining to Physical Education in an orderly way, and to indicate certain of their relations. The arrangement offered herein is provisional and tentative. It is published in the hope that it may suggest the points of view from which Physical Education may be studied most profitably. The writer will welcome criticism and suggestions, from any source, which shall enable him to make this scheme more coherent and complete.

In what follows Physical Education is considered as:—

- 1. An Expression.*
- 2. A National Institution.*
- 3. A Department of Science.*
- 4. A Practical Art.*

1. Physical Education as an Expression.

A. The term is used in :

1. **A vaguely general, uncritical, and popular sense**, when it means too much, being made to include matters that belong to Personal and School Hygiene ; *e.g.*, Bathing, Diet, Dress, Seating of Pupils, Ventilation.
2. **A semi-general sense**, signifying exercise for the sake of health or recreation or the prevention of mischief, when it means too little, though it is generally so used by School Boards and "Educators."
3. **A strictly scientific sense**, based on a critical consideration of demonstrable physiological and psychological effects and relations. Its general and special scientific significations should be distinguished and determined.

B. **Synonymous Terms ;**

e.g.: Physical Training. Bodily Exercise. *ἀσκησις*.
γυμναστική τέχνη. *ἀθλητική τέχνη*. *Turnen*. *Friskgymnastik*.

C. **Non-synonymous Terms ;**

e.g.: Physical Culture. Movement Cure. *Sjuk-gymnastik*.
Society-gymnastics. Delsarte Exercises.

2. Physical Education as an Institution.

- A. **History and Literature** enable us to trace the influence of Physical Training on national life and development. Its forms range from puerile and primitive customs to highly organized national institutions.
- a. **Primitive forms** are found in Children's Games, which are characterized by (1) aimless and futile activity, or (2) by the spontaneous, dramatic imitation of the pursuits of their elders, particularly in :

Hunting and Warfare; *e.g.*, Running, Catching, and Throwing Games, and playing with weapons.

Such forms are still found among most children and savages, and many mountaineers and islanders.

- b. **Derived and Higher forms** result from the capability of games to furnish means for Combativeness, Rivalry, and Personal Distinction, under Rules, Captains, Trainers, and Judges; *e.g.*:

1. Practice and Preparatory Exercises.
2. Exhibitions of Prowess and Skill.
3. Championship Competitions and Contests.
4. Exercises and Competitions for Educational Purposes.

Under 2 and 3 we may place games and feats, in honor of gods and heroes, such as have figured in the celebration of Worship, Victory, Funerals, and National and Religious Festivals.

The following Higher Forms of Physical Education may be distinguished:

1. **Ancient**; *e.g.*, Greek and Roman Gymnastics and Athletics.
2. **Mediæval**; *e.g.*, Popular Sports, Knightly Games, and Military Exercises.
3. **Renaissance**; *e.g.*, Games and Exercises in Italy and France, for Recreative and Educational Purposes.
4. **Modern**; *e.g.*, German, British, Swedish, American, etc., for Hygienic or Educational ends.

B. Physical Education may be studied in Literature.

1. In **Historical** Writings.
2. In **Epic Poetry**, Mythology, and Folk Lore.
3. In **Religious and Semi-religious Rituals**.
4. In **Legal and Educational Codes**.
5. In **Philosophical and Theological Treatises**.
6. In **Medical Treatises**.
7. In **Lives and Handbooks of Trainers and Champions**.
8. In **Works on Art and the History of Art**, especially Sculpture.
9. In **Periodicals and Bibliography**.

3. Physical Education as a Department of Science.

A. The essential, universal, necessary factor in all forms of Physical Training is **Neuro-Muscular Exercise**. It should be critically considered in respect to:

a. **Its Nature and Effects.**

1. Bodily. 2. Mental.

b. **Its Aims**, which may be:

1. Recreative. 2. Hygienic. 3. Educative. 4. Remedial.

c. **Its Vehicle**, which may be:

1. Sports and Games. 2. Gymnastics. 3. Technical drill.

d. **Its Methods**, which may be:

1. Informal and persuasive. 2. Rudely formal.
3. Scientifically systematic.

e. **Its Results**, which are:

1. Anatomical. 2. Physiological. 3. Mental.
4. Moral.

Methods for testing, measuring, and setting forth the results of Physical Training belong to what promises to become a distinct branch of science.

B. **As a Branch of Hygiene.** Physical Training serves to promote the normal growth and development of:

1. **The Master Tissues and Organs;**

i.e., Muscles, Nerves, and Brain.

The Law of the Evolution of the Nervous System deserves special consideration under this head, since it constitutes a serviceable criterion of the worth and efficacy of the various forms of Physical Training. The natural order and rate of growth and development of the fundamental and accessory neuro-muscular mechanisms, and the characteristics of central and peripheral movements should be carefully studied in this connection.

2. **The Purveyor Tissues and Organs ;**

i.e., the Digestive and Assimilative organs, and the Arterial side of the Circulatory and Respiratory systems of organs.

3. **The Scavenger Tissues and Organs ;**

i.e., the Cutaneous, Intestinal, and Renal organs, and the Venous side of the Circulatory and Respiratory organs.

The scope and limitations of muscular exercise as a factor in promoting health, and in modifying the growth- and death-rates of children and youth, is deserving of special study.

C. **As a Pedagogic Discipline.** Physical Training helps to develop *Will* and *Intelligence*; *i.e.*, the power to know, do, endure, and forbear.

a. Its rudimentary forms are found in the **Training of Animals**; *e.g.*, Trick-animals, Hunting-dogs, Race and Cavalry horses.

b. It lies at the basis of Mental and Moral Training; hence its place should be defined and its value determined in relation to the ends and needs of:

1. **Somatic or General Bodily Training;**

e.g., in the matter of Carriage, Walking, Running, Dancing.

2. **Language Training;**

e.g., Singing, Gesture, Speaking, for general and special ends.

3. **Manual Training;**

e.g., Writing, Drawing, and the Use of Tools for educational purposes.

4. **Industrial Training.**

For the professional training of skilled workmen.

5. **Military Training;**

e.g., of Boys playing at Soldiers, of Militia, Soldiers and Sailors.

6. **Normal Training.**

General and Special, in each of the chief departments of Education; viz., in **Elementary, Secondary, Superior, and Technical** Education.

Physical Education as a Practical Art

depends, as regards its standing and success, upon the character, capability, and training of its exponents and practitioners, who should have a clear understanding of the nature and scope of Physical Education as a science, and be sufficiently familiar with well-approved methods to select and use such methods as experience has shown to be best adapted to the general or special ends of the department in which they find themselves engaged.

As an Art, Physical Training includes the Departments of :

1. **Training and Instruction.**
2. **Construction.**
3. **Administration.**
4. **Finance.**

I. Department of Training and Instruction.

This includes measures looking to the development of aptitude and skill :

- A. For Athletic purposes, by :
 - a. **Instructors** of individuals.
 - b. **Trainers** of individuals.
 - c. **Captains** of teams, crews, etc.
 - d. **Coaches** of teams, crews, etc.
 - a, b, c, d, are usually selected on empirical grounds, and their training is usually narrow and special.
- B. For Gymnastic purposes, by :
 - a. **Leaders** in "School-games."
 - b. **Vorturner and Turnlehrer** in **Turn-Vereine.**
 - c. **Directors and Assistants** in Departments of Gymnastics, public or corporate.
 - d. **Normal and Special Schools** for the Training of Teachers and Experts in Educational Gymnastics. A comparative study of European and American usage as to the education, remuneration, standing and duties of persons engaged in the athletic and gymnastic forms of Physical Education would be illuminating and instructive.

2. Department of Construction relates to:

1. Buildings for :

- a. Athletic Clubs, *general*.
- b. Fives, Racket, and Tennis Courts.
- c. Boat-houses, Cricket Pavilions, etc. } Special.
- d. Public Gymnasia, city or State.
- e. College Gymnasia.
- f. Club and Y. M. C. A. Gymnasia.

Cf. Greek *γυμνάσιον, παλαίστρα*, Roman *arena* and *gymnasium*, German *Turn-halle*, Swedish *Gymnastiksal*, American Athletic Club House.

g. Swimming Baths and Schools.

2. Grounds and Enclosures :

- a. Town and City Play-grounds maintained at public expense.
- b. School and College Play-grounds for general purposes.
- c. School, College, and Club-grounds of a special nature ;
e.g., for Cricket, Ball, and Running Games.
- d. Out-of-door Gymnasia ;
e.g., German *Turnplatz*, American uncovered gymnasia, Greek *στάδιον*.

3. Machines and Appliances for :

- a. Athletic purposes ;
e.g., Bowling Alleys, Ball-cages, Rowing-tanks, Tackling-bags, etc.
- b. Gymnastic purposes.
 - 1. Hand apparatus. 2. Heavy machines. 3. Zander and Sargent machines. 4. Military obstacle-gymnastics.
- c. Instruments for Scientific purposes.
 - 1. Physical Diagnosis. 2. Anthropometry. 3. Psycho-physical tests.

Physical Education as a Practical Art.

3. **Department of Administration** relates to the selection, organization, and control of *personnel* for :

- A. Maintenance and management of :
 - a. **Contests, Exhibitions, and Festivals** of an athletic or gymnastic character.
 - b. **Training and Management of Teams and Crews** by managers, trainers, and coaches.
 - c. **Superintendence and Care of Buildings, Grounds, etc.,** *e.g.*, Janitors and care-takers, ground-men, bath-attendants, rubbers, clerical and special assistants, etc.
- B. Instruction in :
 - a. **Athletic Specialties** — *e.g.*, Running, Boxing, and Fencing — by professionals.
 - b. **Special Schools** by directors and teachers; *e.g.*, **Normal Schools, Military Gymnastic Institutions.**
 - c. By **Turner-Wärter, Lehrer, and Vorturner** in Turn-Vereine.
 - d. **School Gymnastics and Games** by directors, teachers, and leaders of squads and classes.
 - e. **School Sports**; *e.g.*, Cricket, Rowing, Ball-games, Hare and Hounds, etc., ruled and managed by boys and "old boys."

The most approved and successful methods which obtain in Europe and America should be contrasted and compared, in order to prevent the adoption of obsolete, discredited, and ignorant methods of procedure.

4. Finance.

The relative and proper cost of Instruction, Construction, and Maintenance in the various branches of Athletics and Gymnastics should be determined. The economics of athletics and gymnastics have not been accorded due attention. Study of such topics as follow is demanded :

- i. Resources, funds raised by :
 - a. **Taxation**, for schools that are public.

- b. **Subscriptions**, by participants and their friends.
 - c. **Gate-money**, entrance-fees, dues.
 - d. **Entertainments**.
- } In case of schools, clubs, etc., private and corporate.
2. Expenditures, which include :
- a. **Cost of Grounds.**
 - Cost of Buildings.**
 - Cost of Salaries and Wages.**
 - Cost of Appliances.**
 - Cost of Teams.** { Travelling.
 - } Training.
- } **A.** For athletic purposes.
- b. **Cost of Prizes.**
 - Cost of Grounds.**
 - Cost of Buildings.**
 - Cost of Salaries.**
 - Cost of Apparatus, etc.**
 - Cost of Repairs and Maintenance.**
- } **B.** For gymnastic purposes.
3. Experience shows that the raising and expenditure of money, especially for athletic purposes, should be controlled by Advisory or Graduate Committees in the case of school and college athletic organizations. The expenses entailed by the support of athletic and gymnastic institutions of a public nature are met and regulated by State and City officers, in many instances, at home and abroad. What constitutes parsimony, and what extravagance, in this department, is open to discussion from several points of view. It is eminently desirable that the Hygienic and Educational results obtainable from a given sum expended for **Athletics** should be ascertained, and set forth in comparison with similar results obtainable from a like sum spent for **Gymnastics**.

NOTE.—Persons wishing copies of this paper—which may be reprinted, but not offered for sale—should apply, enclosing stamps for postage, to the Secretary of the N. E. Conference of Educational Workers, Mr. J. O. NORRIS, Melrose, Mass.