



A Peer Reviewed Research Journal

Department of Physical Education & Sports Sciences

(Faculty of Inter-Disciplinary and Applied Sciences)

University of Delhi

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(University of Delhi)

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INFORMATION ABOUT THE RESEARCH JOURNAL

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Indian Journal of Physical Education and Sports Science (IJPESS)

PATRON'S MESSAGE

In line with the aims and objectives of starting a research journal in physical education and sports sciences by the Department of Physical Education and Sports Sciences, we need to organize priorities for research in this field.



Accordingly, as per my experience of more than 41 years of teaching and research in physical education and sports sciences, I wish to suggest the following guidelines for priorities required in this respect:-

Priority No.1 may be given to motivate educationists for change in their mindset so as to introduce atleast a three credit course contents on balanced education to B.Ed. students. These contents must contain definition, scope and promotion of lifelong physical activity. Human behavior of educated people should evidently reflect active lifestyle promotion environment. Teachers attitude, knowledge and skills may also indicate the same in all educational institutions namely schools, colleges and universities.

Priority No.2 is required to promote the creation of "Centers' of Application of Knowledge Evaluated (CAKE) through evidence based research in each faculty of the university including that from the newly created/desired to be created faculty of physical education and sports sciences at each Indian University.

Priority No.3 should be given to validate 'Accreditation' procedure of NAAC which can be more effective only after including questions on steps being taken by universities for implementing national education policy; UNESCO recommendations; balanced education; physical education taught or not taught; text books referred and produced for each undergraduate and pre-service teacher trainee students.

Priority No.4 should be given to the promotion of scientific research and training for psychological readiness of educationists for learning and imparting training of stages of motor and cognitive behavior changes through the understanding of control mechanisms, feedback information processing, decision making, individual differences, based on genetic

endowments and environmental influences along with in-disciplinary research work.

Priority No.5 may be allotted to lifelong learning of management of knowledge through road maps of planning, organizing infrastructural needs, proactive leadership initiatives, scientific homeostasis based control systems.

Priority No.6 may be given to the teaching of social and personal responsibilities through the teaching of physical activity and sports training protocols.

The above priority guidelines for undertaking research and publication of research results will greatly help to enthuse and enrich our youth with desired knowledge and skills by the time of their second birth. As against the first birth given by the mother, the second birth is given by teachers contributing for the training of children and teens up to their attaining the age of adult citizens from that of the stages of a minor non-voter.

I also wish to congratulate **Dr. Sandeep Tiwari, Chief Editor** and his team of editors for publishing this important research journal.

**DR. DEVINDER K. KANSAL
HEAD OF THE DEPARTMENT**

Editor-in-Chief's Desk

The Indian Journal of Physical Education and Sports Science (IJPESS)

is a peer reviewed research journal and is being referred by many research scientist in the field of physical education and sports. The journal shall publish all those research articles that are of significance, relevance and reflecting scientific excellence in various specialized areas in Physical Education and Sports Science. Today, the discipline of physical education and sports is considered as an inter-disciplinary and applied science. Despite such development in the rest part of the world the discipline of Physical Education and Sports Science is yet to attain the importance in our country. If we look into the structure of the Faculty or the Department of physical education and sports it still looks as a dream. Thus, a joint and concerted effort of academicians' and administrators' are needed to give physical education and sports a further impetus in this direction. An immediate attention of the authorities at the top most level is required to develop and establish the structure of the Faculty of physical education and sports in line with the other academic disciplines. Thus, it becomes imperative for ministry of HRD and University Grants Commission to initiate appropriate steps by constituting parliamentary committee and inviting suggestions from experts on the structure of faculty of physical education in the university system.



Finally, we are extremely thankful to all the research scientists for their contribution in providing the research articles in various disciplines of physical education and sports science. We are also thankful to reviewers and editorial board members in finalizing the research articles. However, we further look forward for the contribution of research scientists from all over the globe in our future endeavors'.

Dr. Sandeep Tiwari
Associate Professor

Indian Journal of Physical Education and Sports Sciences (IJPESS)

Patron

Dr. Devinder. K. Kansal

Head, Department of Physical Education and Sports
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INFORMATION TO AUTHORS

The **Indian Journal of Physical Education and Sports Science (IJPESS)** is a research journal that shall cater to the scientific knowledge in the discipline of physical education and sport science through publication of research based articles in the journal being published from the Department of Physical Education and Sports Sciences (Faculty of Interdisciplinary & Applied Sciences) University of Delhi, Delhi (India). The journal shall publish all those research articles that are of significance, relevance and reflecting scientific excellence in various specialized areas in Physical Education and Sport Science. This journal publishes original and exclusive articles in the area of physical education and sport sciences. The research methodology should be the most appropriate and well accepted. The Indian Journal of Physical Education and Sports Science (IJPESS) shall be published bi-annually from the Department of Physical Education and Sports Sciences (Faculty of Inter- disciplinary & Applied Sciences), University of Delhi, Delhi (India).

SCOPE OF THE JOURNAL

The **Indian Journal of Physical Education and Sports Science (IJPESS)** shall cover the following specialized areas in Physical Education and Sports Science:

- * Sport and Exercise Physiology
- * Sport and Exercise Psychology
- * Adapted Physical Activity
- * Biomechanics and Kinesiology
- * Motor Learning and Control
- * Comparative Physical Education and Sport
- * Coaching Science and Physical Fitness, Health and Wellness
- * Kinanthropometry
- * Neuro-motor Psychology
- * Philosophy of Sport
- * Political Science of Sport
- * Sociology of Sport
- * Sport Facilities
- * Sports Law and Sports for All
- * Sports History
- * Sports Management
- * Sports Pedagogy
- * Sports Medicine
- * Yogic Science
- * Sports and Spirituality

The Journal welcomes the submission of manuscripts by the authors which will be reviewed prior to publication. Further, it will be highly appreciated if the authors follow the guide lines and note the information related to publication ethics mentioned below:

- This journal publishes original and exclusive articles in the area of physical education and sport sciences. Submitted manuscripts must be the original work of the author(s).
- It should be noted that the paper must not have been submitted for publication in any other journal concurrently. Only unpublished manuscripts should be submitted.
- In case, any error discovered in the manuscript after submission must immediately be communicated to the Editor-in-chief.
- The author/(s) will be informed of the decision on their manuscript shortly after submission of the manuscript via mail.
- The paper will normally be published following its acceptance in the next available issue.
- Acknowledge the sources of data used in the development of the manuscript.
- **Electronic submission** of manuscripts is strongly encouraged, provided that the text, tables, and figures are included in a single Microsoft Word file (Times New Roman font of size 10).
- **Manuscripts should be submitted** as e-mail attachment to the **Editor-in-Chief** at: **dpess.journal@gmail.com**. The author will be communicated via mail shortly after the submission of the manuscript.
- The **cover letter** should include the corresponding author's full address and telephone/fax numbers and should be in an e-mail message sent to **Dr. Sandeep Tiwari, Editor-in-Chief**, with the file, whose name should begin with the first author's surname, as an attachment.
- Authors cannot nominate reviewers. Only reviewers randomly selected from our database with specialization in the subject area will be contacted to evaluate the manuscripts. The process will be blind review.
- **The Indian Journal of Physical Education and Sports Sciences will only accept manuscripts submitted as e-mail attachments.**

Review of Manuscripts

- All manuscripts are reviewed by Editor-in-Chief, members of the Editorial Board, technical editors, distinguished qualified advisory board members or outside reviewers. The journal shall communicate the reviewers' comments if any promptly to the author. It is the aim of the **IJPES** to publish manuscripts at the earliest possible after submission.

Manuscripts Submission Guidelines for Regular articles

- All portions of the manuscript must be typed **double-spaced** and all pages numbered starting from the title page.
- The article must include content under following main headings: **Title, Abstract, Introduction, and Methodology** (Sample size with age and place, instrumentation/tools used along with its brief information,), **Findings** (include statistical applications, title of the table and description, graphical presentation and its description), **Discussion of findings, Conclusion, Implication of research findings, References.**
- The **Title** should be a brief phrase describing the contents of the paper. The title page should include the authors' full names, designation and affiliations. The name of the corresponding author along with phone, fax, E-mail information and present addresses of authors should appear as a footnote.
- The **Abstract** should be informative and completely self-explanatory. Briefly present the topic, state the scope of the experiments, indicate significant data, point out major findings and conclusions. The abstract should be 100 to 200 words in length. The abstract should be written in the past tense. Abbreviations should be avoided. Do not cite any literature in the abstract.
- Provide 3 to 10 **key words** following the abstract.
- A list of non-standard **Abbreviations** should be added. In general, non-standard abbreviations should be used only when the full term is very long and used often. Each abbreviation should be spelled out and introduced in parentheses the first time it is used in the text. Only recommended SI units should be used. Standard abbreviations need not be defined.
- The **Introduction** should provide a clear statement of the problem, the relevant literature on the subject, and the proposed approach or solution. It should be understandable to colleagues from a broad range of scientific disciplines.

- **Methodology** should be complete enough to allow experiments to be reproduced. However, only truly new procedures should be described in detail; previously published procedures should be cited, and important modifications of published procedures should be mentioned briefly. Methods in general use need not be described in detail.
- **Findings** should be presented with clarity and precision. The results should be written in the past tense when describing findings in the authors' experiments. Previously published findings should be written in the present tense. Results should be explained, but largely without referring to the literature.
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- **Tables** should be designed to be as simple as possible. Tables are to be typed double-spaced throughout, including headings and footnotes. Each table should be on a separate page, numbered consecutively in Arabic numerals and supplied with a heading and a legend. Tables should be prepared in Microsoft Word. Tables should be self-explanatory without reference to the text. The same data should not be presented in both table and graph form or repeated in the text.
- **Figure legends** should be typed in numerical order on a separate sheet. Graphics should be prepared using applications capable of generating high resolution JPEG or Power-point before pasting in the Microsoft Word manuscript file. Use Arabic numerals to designate figures and upper case letters for their parts (Figure 1). Begin each legend with a title and include sufficient description so that the figure is understandable without reading the text of the manuscript. Information given in legends should not be repeated in the text.
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Book, one author

McKibben, B. (1992). *The age of missing information.* New York: Random House.

Book, multiple authors

Larson, G. W., Ellis, D. C., & Rivers, P. C. (1984). *Essentials of chemical dependency counseling.* New York: Columbia University Press.

Unpublished master's thesis

Paulosky, K. A. (1997). *Knowledge and attitudes of pain and activities of nurse administrators.* Unpublished master's thesis, Northern Michigan University, Marquette, Michigan.

Article in a journal (continuous pagination throughout volume)

Burke, R. J., Shearer, D., & Deszca, E. (1984). Correlates of burnout phases among police officers. *Group and Organizational Studies*, 9, 451-466.

Article in a journal (paginated by issue)

Berkerian, D. A. (1993). The ADA and the hiring process in organizations. *Consulting Psychology Journal: Practice and Research*, 45(2), 10-36.

Citing articles in monthly periodicals

Chandler-Crisp, S. (1988, May) "Aerobic writing": A writing practice model. *Writing Lab Newsletter*; pp. 9-11.

Citing articles in weekly periodicals

Kauffmann, S. (1993, October 18). On films: Class consciousness. *The New Republic*, p.30.

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Implementation of Youth Enrichment through Sports and Physical Education (YES PE) at each University

Devinder K. Kansal, Head, Department of Physical Education & Sports Sciences, (University of Delhi)

and

Principal, Indira Gandhi Institute of Physical Education & Sports Sciences, New Delhi

“It is for science not only to add years to life but, more important, to add life to the years”.

- George M. Piersol and Edward L. Bortz (1939)

Vision : Youth may be enlightened and empowered for ideal citizenship and wellness way of life by enriching through the art and science of Sports and Physical Education.

Mission : In order to implement YES PE, we need to take up the management of following missions :

1. Creation of a Centre of Application of Knowledge-Evaluated (CAKE) and Eclectic Curriculum Development Council (CDC) at each university to establish core curricula, scientific methods of evaluation, and standard definitions of general terms like education, physical education.
2. Preparation of easily manageable practical skills and pedagogy of implementing YES PE (i.e. Youth Enrichment through Sports and Physical Education).
3. Creating mechanism to raise consciousness to report the checks needed to prove accountability and transparency for enjoying autonomy and democracy.

Background : The author is of the firm belief that due to full autonomy to universities without any checks for accountability and transparency, we have failed to enrich our students with the most desirable attitudes, skills and knowledge. If, we say that the management of knowledge is at the most primitive stage, we are not at fault because neither any centers of application of evaluated knowledge, have been created nor any self-responsibility has been realized to examine the behaviors of individuals before the award of bachelors and masters degrees by the universities. The system of scientific management needs that knowledge be created and imparted in a most effective and efficient manner to enrich fully the undergraduates with all the required **attitudes, information and skills needed to lead a happy, successful, comfortable and healthy life devoid of avoidable disease, disability and early death.** The education provided to each undergraduate student should also enrich him for becoming a good citizen acquiring self-responsibility to learn and follow all the required skills of sports training (Krasilshchikov,2014).

To sum up this background, we may say that universities are doing excellent research jobs but our management of knowledge is yet to be fully effective and efficient. In other words, universities need to implement the alphabet of 'wellness way of living manual' for YES PE. Secondly,

universities need to create a mechanism to integrate and implement the applicable knowledge of each department.

Introduction : All agencies concerned with youth development agree fully that sports and physical education play an important and effective role in the enrichment of youth by enabling them to realize their full genetic potentials as well as by empowering them to maintain their physical fitness & peak performance levels for longer duration. However, the torch bearers for youth development are not fully aware about the practical skills to be used for Youth Enrichment through Sports & Physical Education (YES PE). The most common believe that taking part in sports enables the youth to utilize their energies in constructive activities is only half baked and vaguely understood. Without individualizing needs and producing methods to enable the youth to shoulder self-responsibility for their full development, the benefit from sports and physical education could not be streamlined in the past. Due to wide spread ignorance to practical skills of youth enrichment, our youth has not been empowered to draw benefit from sports and physical education (Kansal,2008, 2011,2012,2013).

According to NCERT, there is a need to review the curriculum, syllabus and pedagogy of the teacher's training programme so that **all teacher education courses must include health, yoga and physical education as a compulsory subject (NCERT, 2011)**. Keeping in view recent developments of NCERT, UNESCO, Healthy people-2020 (USDHHS, 2010), we should organize ourselves in such a way that we are able to promote physical activity even among the concerned authorities, including all heads of higher education institutions.

This paper is attempted to outline the skills needed to be included in the core curriculum of all undergraduate courses and in all pre service teacher training courses. The premise of these skills is based on the fact that proper theoretical knowledge is essential to draw full benefit from the practical knowledge and practices to be followed by the youth in the schools, colleges and the universities as well as by the youth outside the educational institutes. With the use of modern technology, we can achieve these goals much more effectively and efficiently. This will be possible only when we are able to properly focus our attention in two directions one, the enrichment of pre-service teachers of all subjects and two the enrichment of all youth for their personal responsibilities. Accordingly, the suggested practical skills are dealt here in three parts:

Part I : Skills for B.Ed. courses.

Part II : Skills for all undergraduate students.

Part III : Physical Activity Technology (PAT)– common for all courses.

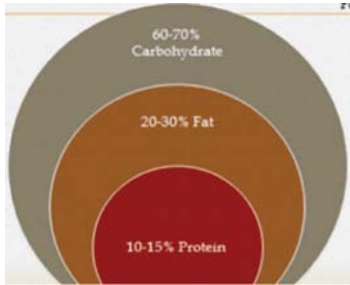
Part-I : Skills for B.Ed. Courses : The youth undergoing training in the pre-service teacher training course (namely B.Ed.) has been responsible for the overall development of culture of good practices in the educational

institutions especially with respect to the attitude of teachers (other than those of physical education) towards physical activities for youth development and sports programs in their schools. Unless this category is not prepared with proper theory needed to motivate them to become role models, the school cannot justly utilize the benefits of sports and physical education merely from the strengths of its physical education teachers.

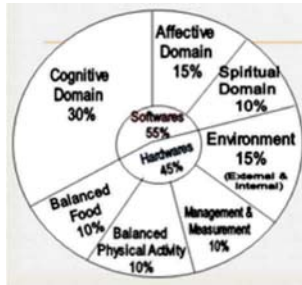
The following simple practical physical activity skills must be mastered by each pre-service teacher during their B.Ed. Course:-

1. Ability to demonstrate the components of Balanced Education as done in case of Balanced Nutrition.

Balanced Food



Balanced Education



2. Ability to perform on regular basis physical activities needed for general physical fitness.
3. Ability to demonstrate nutritional needs including oxygen requirements for different categories physical activities.
4. Ability to demonstrate positive attitude towards physical activity and get motivated on the basis of the knowledge.

Part-II: Skills for all undergraduate students: All undergraduate students should be given the benefit of YES PE through the following skills:-

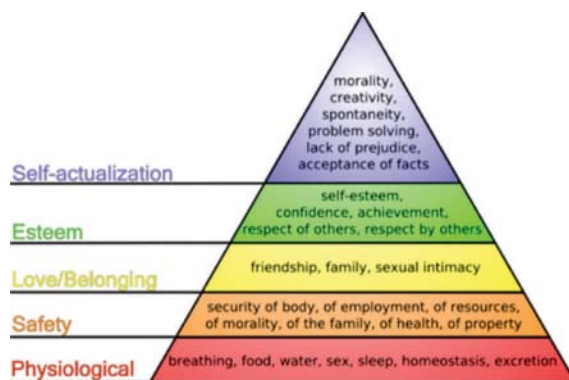
1. Importance of physical activity and practicals of Physical Activity Technology (PAT).
2. Theory & practice of sports for fitness and wellness way of living.
3. Ability to demonstrate balanced education, balanced food and balanced physical activity.

Part-III: Physical Activity Technology (PAT) – common for all courses :

1. **Meaning:** Know-how of scientific principles and skills of physical activity for holistic personality development.
2. **Principles:** WEST FEST FIT GO SIR i.e. Warming-up (2 to 5 min.), Exercise Session (10-30 min.), Terminal or cool down (2 to 5 min), Flexibility (stretching capacity of joints), Endurance (oxygenation of muscles), Strength (growth & strength of muscles), Training schedule, Frequency, Intensity, Time duration, Gradual Overloading

(increase), Specific to a group of muscles, Individualized (no competition with others) & Right Recovery time.

3. **Components:** One should know the following physical fitness components:
 - a) **Body Composition** (Percentage Fat, generally measured by body weight or Weight-Height relationship through Body Mass Index or skin folds).
 - b) **Aerobic Endurance** (measured from resting and after exercise pulse rate).
 - c) **Muscular Strength** (measured from Grip Strength, High Jump and Sit-ups).
 - d) Flexibility (measured from Sit and Reach Test on floor).
4. **Skills:** a) Locomotive PAT (Right postures of walking, Jogging, Cycling, Swimming, Rope-jumping.). b) Non-locomotive & Manipulative PAT (Bending, Throwing, Catching, Strength Training (free hand and on weight training machines). c) Stretching PAT, & d) Respiratory PAT – Pranayama.
5. **Behaviour Change Technique is essential to acquire PAT:** There are six stages namely 1. Pre-contemplation, 2. Contemplation, 3. Preparation, 4. Action 5. Maintenance (for six months), and 6. Absorption in daily schedule.



6. **Maslow's Hierarchy of Human Needs:** Physical Activity Technology (PAT) helps in achieving all human needs (classified below in Maslow's hierarchy of human needs).

Barriers to YES PE : After establishing that youth enrichment is desirable and best possible by using the tools of enjoyable and self chosen sports (promoting essentials of physical activity & human performance education), it becomes important to remove various barriers to implement YES PE. Before doing so, it is obligatory to enlist these barriers. Some of the important barriers are enlisted below along with their concepts:-

1. **No Standardized definition of Education :** We are yet to establish a unit of measurement for measuring an educated person where as the National Association of Physical Education and Sports (USA) has already standardized in 1992, the practicable definition with measurable standards of a physically educated person.

All autonomous bodies like universities of the world, National School Education Boards, University, Departments of Education are not intending to use any standardized definition of 'Education' as per four pillars of education (Recommended by UNESCO 1996), or as advocated by UNESCO charter (1978) regarding human rights for physical education & sports.

2. **No Essential Training of valid Measurement :** The subject of 'Measurement and Evaluation' is not being taught to under graduate or post-graduate students as an obligatory core paper although it is essential to manage application of knowledge and to make valid evaluation of any course contents.

3. **No valid Standards of Accreditation:** We are yet to use scientific standards of accreditation for evaluating quality of educational institutions based on the contents being taught & required for human needs, books being prescribed, text books being written and teaching of the holistic personality development including YES PE; or evaluating the obligation of implementation of national policies and international policies recommended by UNESCO (NAAC criteria has totally ignored these points in its evaluation system, hence there are no efforts by the individual universities to create any monitoring cells for implementing national education policy or to include relevant textbooks in course contents).

4. **No Mechanism to Get Implemented Authorities Directives :** Universities, school education boards, NAACs and NCTEs (or equivalent bodies) in all countries are yet to focus their tools and courses on quality contents of education (described by UNO, UNESCO, CDC (USA), WHO Mahatma Gandhi, Aurobindo Ghosh, National Education Policy, 1986 (Kansal, 2008, 2011, 2012 & 2013).

If any individual or agency is given autonomy or freedom to call '7' as '2', '2' as '3' and '8' as 4, etc., there will be a total chaos in counting uniformly. A similar chaos is existing today in educational course contents and consequently balanced educational contents are yet to be started for teaching in the universities and schools due to misused umbrella of autonomy to universities and school education boards without the use of any scientific technology of accreditation like one given in the acronym 'PROVE' i.e. Precise, Reliable, Objective, Valid and Expertise based evaluation & accreditation.

5. **No Mechanism to compile recommendations of Experts for updating Courses:** Most of the recommendations made by experts at national and international conferences remain unimplemented due to

non-existent system of management of knowledge and scientific classification of academic subjects.

“Our children deserve the right to achieve intellectually and grow up fit. An important part of education is learning that physical fitness is the key to a happier, healthier, and more productive life”.

**- Bill Clinton, (1995)
Former President of USA**

Only Balanced Education including YES PE may enrich the **youth to own self responsibility for one's choices for daily food, physical activity, meditation, sanitation, spirituality, emotional stability, genetic awareness, environmental adjustments and sustain ability by one's best daily performance as per divine laws of nature. The best health promoting life is enjoyable daily and till death with the help of conscious efforts to change any illness promoting behaviors to wellness promoting behaviors.**

Currently, stalled by ignorance to 'Balanced Education', students and their parents are subject to the monopolies of institutions of higher education that have eliminated competitive excellence in education, and are free to prescribe any unbalanced educational curriculum.

We are living in most wonderful and scientific era in the history of mankind. Unfolding before us is the art and science of lifelong learning for all people. Unfortunately, human curiosity to learn has overshadowed the **priorities needed to be given to balanced education required to develop the nature of human beings from illiteracy at birth to a balanced educated humane individual at adulthood.** But, we at the institutions of higher education have failed to produce a valid bench mark and any uniform curriculum and model of core instructions required to give second birth to the newborn child by proper balanced education at young adulthood. **More surprising fact is that philosophers like Sri Aurobindo Ghosh, Swami Vivekananda and Mahatma Gandhi have amply emphasized the importance of balanced education of the body and mind.** But the modern science dominated by machine age and materials' obsession has blinded the eyes of higher education resulting in non-implementation of required balanced education.

Just as we discuss the implications of unbalanced food, we should think seriously about the implications of currently followed unbalanced education. In order to do that, we need to know first the meaning and components of balanced education. By balanced education, we should understand that personality development is possible only by educating the pre-service teachers with core curriculum on the four pillars of Delors Commission Report presented to UNESCO in 1996. This report re-emphasizes to strengthen all the four pillars of education namely,

1. To Know
2. To Do
3. To Be and
4. To live Together

Unfortunately our pre-service teacher education curricula are yet to include credit system for each pillar of education. To start with, we may balance our education by creating a criterion measurement of higher education. In other words first degree courses or bachelors programmes must include (without the intervention of the Supreme Court of India who had to teach the universities to include a paper on Environmental Studies in each bachelor degree course) at least few credits to each of the above mentioned four pillars of education usually represented as Cognitive Domain, Psychomotor Domain, Spiritual Domain and Affective Domain (CAPS) so as to produce competent future teachers.

This would mean that each pre-service training course must include at least a four credit paper in its course contents on 1. Subject Specialization (Cognitive domain), 2. Physical Activity Methodology (Psychomotor domain), 3. Character Building (Spiritual domain) and 4. Psychology (Affective domain). Interestingly, all the four domains of learning are obligatory only in physical education courses through sports skill teaching. But, there is no compulsory paper on balanced education, included in B.Ed. or other pre-service teacher training courses to impart effective education to our youth in the universities. Currently, all categories of teachers and infrastructures are available in universities and other institutions of higher education, but the missing link is the proper mechanism of **valid measurement and evaluation for imparting the four pillars of education.**

In order to move successfully into the future for holistic development of personality of our youth, we must take note of the need of promoting youth enrichment through the medium of sports and physical education (the tools to impart balanced education) through valid bench marks by **the creation of a measurement and evaluation department at each university.** Such a bench mark, I am sure, will result in developing a powerful paradigm change for the implementation of the recommendations of UNESCO's Delors Commission on education. Consequently, it will be compelling for our educators, administrators and politicians to embrace the extraordinary potentials of physical activity and balanced education to affect the well-being and quality of life of our people at all ages especially our youth, for years to come.

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