Comparative Effectiveness of a Programme of Movement Education and Traditional Physical Education on Movement Satisfaction, Attitude towards Physical Activity and Self Concept of Elementary School Children

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INTRODUCTION

The preparation of the young for late life is an activity to which almost all living species give considerable attention, time and energy. In human beings, this process is fairly prolonged and is termed 'education. 'The ultimate aim of education is the fullest development of the individual's potentialities.

Well–organized and implemented programmes of physical education bring about not only psychomotor development, but also development in the cognitive and affective domains. Sound programmes of physical education, when implemented under effective leadership and with adequate facilities will bring about all-round development of the participants. Such programmes include a variety of sports, games and other activities, which are governed by a set of rules adopted universally. Although sports and games offer an opportunity for all-round development of participants, their contributory potential is limited, especially for children. Those concerned with the physical education of children have been trying to find and devise suitable games and activities, which will provide adequate opportunities for their all round development. However, most of the minor games so developed are again controlled by sets of rigid rules, though they are sometimes modified locally.

The concept of movement education is of fairly recent origin in this context. This provides movement experiences to children to satisfy their biological urge for movement, provide opportunities for exploration and discovery, develop creativity and enable them understand movement as it is relates to body parts and surroundings. Conceptually, these programmes are oriented to a problem-solving approach permitting greater flexibility and freedom in the movement experience than mere traditional sports oriented activities. Thus, Movement Education has been hailed as the ideal substitute for traditional physical education.

Movement Education is based on the inspired work of Rudolf V Laban and the development of his theories in British progressive schools after World War II. Laban stressed the fact that body is an instrument through and by which people move, and that each individual is endowed with certain natural types of movement. He believed strongly in exploratory movement and in a spontaneous quality in movement. He opposed the rigidity of any set series of exercises that left no room for creativity or self expression.

Movement education uses four components of movement developed by Rudolf Laban: Body awareness, Space awareness, Qualities of movement and Relationships. Body awareness refers to what the body can do – the shapes it can make, the way it balances, and the transfer of weight from one part of body to another. Space awareness describes the spatial aspects of movement as well as skills relating to moving in different directions and to different levels. The component of Qualities describes how the body can move, and includes skills relating to speed, force and flow of movement. Relationships refer to the connection between body and other performers or the body and small and large apparatus.

The essence of Movement Education is to make a child aware of the movement of its body and involve it intellectually as well as physically. It seeks not only to have the child understand and appreciate its own movement but also appreciate the variety of

movement of other children. The programmes of Movement Education provide movement experiences with sufficient freedom of expression so that children develop movement concepts relating to force, time, space and the like, besides deriving the benefits of health and fitness. Development of movement concepts is achieved through movement experiences, which are presented using the method of exploration characterized by guided discovery and problem solving.

Though some research studies have highlighted its usefulness, much of the acclaimed contribution of Movement Education has been philosophico–speculative in nature. Further, the utility and effectiveness of Movement Education in the sociocultural pattern of India are yet to be documented. Hence, the present investigation was made to compare the effectiveness of a programme of Movement Education and Traditional Physical Education on movement satisfaction, attitude towards physical activity and self-concept of elementary school children.

Methodology

Subjects for the study were one hundred elementary school children studying in classes 4, 5 and 6 in Kendriya Vidyalaya, Trivandrum. A stratified random sample with proportionate number of subjects from each class was obtained using a table of random numbers. The average age of the subjects was 7.8 years, ranging from 7 to 9 years.

Administration of Tests and Collection of data

Since the three tests involved in the study are based on self-report questionnaires, they were administrated in a classroom of the school by the investigator himself. The subjects were called in four groups of twenty five each to the classroom and were given preliminary instructions. The groups were administrated tests for one of the criterion measures on the same day, thus completing the pre-test data collection in three days.

Procedure of the Experiment

Subjects from each class were randomly divided into two groups, and one group from each class was randomly assigned to Movement Education Programme and the other to Traditional Physical Education Programme. The Movement Education group (ME group) was administered a programme of physical activities based on the principles of Movement Education while the Traditional Physical Education group (TPE group) continued to participate in the regular physical education programme of the school.
Movement Education and Traditional physical Education classes were scheduled at the same hour but on different days of the week alternately, each class meeting three days a week for a total duration of twelve weeks. The duration of each class was forty five minutes. The TPE group participated in a physical education programme comprising minor games, tag games and relays routinely offered by the school. The Traditional Physical Education programme was administrated by the school physical education teacher with the assistance of the classroom teachers as had been the practice in the school.

Experimental Design

A random group design with pre- and post- tests on the three criterion variables, namely, Movement Satisfaction, Attitude towards Physical Activity and Self-concept was used in this study. Comparison was made between the pre-test scores of the two

groups, the post test scores of the two groups and between the pre and post test scores of each group separately.

Statistical Analysis of Data

The pre- and the post-test scores in each variable were compared for the ME and TPE groups separately using the mean differences method (t-test, correlated data). Comparison of the two groups on pre- and post-tests was made using the mean differences method (t-test, uncorrelated data).

Findings

Movement Satisfaction

The findings of the study pertaining to the comparison of Movement Education (ME) and Traditional Physical Education (TPE) groups on pre- and post-tests of Movement Satisfaction are presented in Table 1.

TABLE 1

Mean Scores	Groups Compared		Difference Between Means	σ DM	t
	ME	TPE			
Pre-test	105.98	104.52	1.46	2.035	0.717
Post-test	110.58	106.40	4.18	1.820	2.296

t. 01 (98) = 2.63 (Two-tailed test)

t. 01 (98) = 2.36 (One-tailed test)

Table 1 reveals that the two groups did not differ significantly either before or after the experiment.

The comparison of pre-and post-test scores of the two groups is summarized in Table 2.

TABLE 2

Groups	Mean Scores Compared		Difference Between Means	σ DM	t
	Pre	Post			
ME	105.98	110.58	4.60	1.159	3.968*
TPE	104.52	106.40	1.88	1.236	1.52

*Significant at .01 level.

t.01 (49) = 2.40 (One-tailed test)

It can be seen from Table 2 that the ME group exhibited a significantly higher level of movement satisfaction on post-test.

Discussion of Findings

The finding of no significant difference between the ME and TPE groups on pre-test clearly indicates that the two groups were comparable before the start of the experiment. The post-test group Means also do not differ significantly. However, while on the pre-test the difference between the group means was 1.46 in favour of the ME group the difference on the post-test was 4.18, resulting in a 't' ratio of 2.30, which is very close to the tabulated value of 2.36. Thus, it can be said that the Movement Education programme was quite effective in enhancing the satisfaction felt by the students in their movement experiences. As the two groups were quite similar on the pre-test and exhibited considerable difference on post-test, it may be inferred that the movement experiences involving freedom of exploration, creative self-expression, problem solving without imposed judgement, and guided-discovery of new movement patterns are more conducive to greater satisfaction than are the experiences provided by the Traditional Physical Education programme which are largely restricted to teacher-controlled participation, rigid patterns of movement, competition-oriented performance and finally judged as to their effectiveness by the outward results they produce.

Such a finding is not surprising as children, being active by nature and having multiple individual differences, like to participate in physical activity according to their choice, which necessitates a free atmosphere with ample facilities! These basic characteristics of children find correspondence in Movement Education and, hence, children perceive the Movement Education programme to be satisfying.

Attitude towards Physical Activity

The findings of the study pertaining to comparison of the groups on Attitude towards Physical Activity before and after the administration of experimental treatment have been summarized in Table 3.

TABLE 3

Mean Scores	Groups Compared		Difference Between Means	σ DM	t
	ME	TPE			
Pre-test	235.38	235.9	0.52	1.412	0.368
Post-test	237.18	237.0	0.18	1.311	0.137

t.0l (98) = 2.63 (Two-tailed test)

t.01 (98) = 2.36 (One-tailed test)

The two groups did not differ significantly both on pre-test or on post-test.

Table 4 presents the comparison between pre- and post-test scores for the two groups separately.

TABLE 4

Groups	Mean Scores Compared		Difference Between Means	σ DM	t
	Pre	Post			
ME	235.38	237.18	1.80	0.695	2.591*
TPE	235.90	237.00	1.10	0.635	1.733

*Significant at .01 level.

t .01 (49) = 2.40 (One-tailed test).

It can be seen from Table 4 that only ME group made significant improvement in its attitude towards physical activity.

Discussion of findings

A perusal of Tables 3 and 4 brings out a noteworthy occurrence in the present investigation. While the two groups did not differ significantly both on pre-test and post-test, and the TPE group did not exhibit significant improvement from pre- to post-test, Mean gain made by the ME group is significant.

This occurrence may be due to the fact that the ME group had a slightly lower score on, pre-test and a slightly higher score on post-test in comparison to the TPE group. Thus, the nett improvement made by this group attains statistical significance.

Both groups exhibited a very favourable attitude towards physical activity even before the experimental treatment was begun. This testifies to the overall adequacy of the regular physical education programme of the school where the investigation was conducted. Thus, the improvement made by the ME group was very small, though significant.

Thus, it may be safely inferred that inclusion of Movement Education in the curriculum would certainly bring about improvement in attitude towards physical activity not only in terms of immediate outward expression of attitude but also an internalization which will last through adult years, thereby acting as a positive influence for participation in physical activity.

Self-Concept

The comparison of ME and TPE groups on pre- and post-tests of Self-Concept is presented in Table 5.

TABLE 5

Mean Scores	Groups Compared		Difference Between Means	σ DM	t
	ME	TPE			
Pre-test	136.14	135.68	0.46	1.357	0.339
Post-test	138.16	136.82	1.34	1.297	1.033

t.0l (98) = 2.63 (Two-tailed test)

t .01 (98) = 2.36 (one-tailed test)

As the 't' ratios for both pre-test and post-test comparison between the groups are far below the value required for significance, the Mean differences of 0.46 and 1.34 on pre- and post-tests respectively may be attributed to sampling error; there was no real difference between the two groups with regard to self-concept either before or after the experiment.

The comparison of pre- and post-test Mean scores of the two groups on self concept is presented in Table 6.

TABLE 6

Groups	Mean Scores Compared		Difference Between Means	σ DM	t
	Pre	Post			
ME	136.14	138.16	2.02	0.508	3.976*
TPE	135.68	136.83	1.14	0.607	1.878

*Significant at .01 level

t.01 (49) = 2.40 (one-tailed best).

The ME group made an improvement of 2.02 which is statistically significant whereas the TPE group did not show significant improvement.

Discussion of findings

Though the two groups did not differ significantly both on pre-test and post-test, the significance of improvement made by ME group from pre- to post-test is clearly indicative of the superiority of Movement Education.

The fact that subjects in the present investigation had a positive se1f-concept before the experiment, and, that only the ME group exhibited an improvement after twelve weeks of participation, indicates that though a good programme of Traditional Physical Education is conducive to the development of positive self-concept, children participating in such a programme for a fairly long duration, exhibit a levelling off of the increase in self-concept, but the Movement Education programme can lead the children through further improvement.

Conclusion

The findings of the study lead to the conclusion that a programme of Movement Education can contribute significantly to enhancement of Movement Satisfaction, Attitude towards Physical Activity and Self-Concept of Elementary School Children more than a programme of Traditional Physical Education.

BIBLIOGRAPHY

Books

Anderson, Margaret E. Physical Education in Primary Schools. Inventive Movement, Edinburg : W & R.Chambers,1970.

Bailey, Rebecca Anne and Burton, Elsie Carter. The Dynamic Self. Activities to Enhance Infant Development. St. Louis: The C.V. Mosby Company, 1982.

Boyer, Madeline Haas. The Teaching of Elementary School Physical Education, Games and Related Activities. New York: J. Lowell Praft- and Company, Inc., 1965.

Bucher, Charles A and Reade, Evelyn M. Physical Education and Health in the Elementary School 2nd ed. New York: Macmillan Company, 1.971.

Cameron,W. McD and Cameron, Marjorie. Education in Movement in the Infant School. Oxford: Basil Blackwell, 1971.

Fait, Hollis F. Experiences in Movement : Physical Education for Elementary School Child 3rd ed. Philadelphia : W.B. Saunders Company, 1976.

Gallahue, David L. Developmental Movement Experiences for Children. New York : John Wi1ey &Sons, Inc., 1982.

Journals and Periodicals

Andrews, John C. "Enjoyment and Satisfaction in Physical Education." FIEP Bulletin 47 (April-June 1977): 25.

Baker, Barbara Anne. "Analysis of the Girl Student Attitudes Toward the Physical Education Programme of Arlington, Virginia." Dissertation Abstracts International 30 (September 1969) 997-A.

Beveridge, Sandra Kay. "The Relationships among Motor Creativity, Movement Satisfaction, and the Utilization of certain Movement Factors of Second Grade Children." Dissertation Abstracts International 34 (May 1974): 7022-A.

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