CHAPTER II
REVIEW OF RELATED LITERATURE

The research scholar had gone through all the possible available related literature in the Library of Lakshmibai National Institute of Physical Education, Gwalior, Library of Indian Institute of Advance Study, Shimla, Library of State Institute of Educational Management and Training (SIEMAT) Allahabad. Some of the critical and allied literature, which were related to the present study have been cited in this chapter.

The results of the ennis\(^{19}\) study confirm that an existing curriculum can be described through an analysis of purpose concept in four curriculum domains. Furthermore, it is possible for teacher and student to identify example of purpose concept in their classes, without a formal introduction to the purpose-process curriculum framework qualitative analysis can be used to reveal specific proportion of purpose concepts in the perceived, the experimental and the operational domains. Purpose data in the perceived domains can be analysed further to identify explicit and implicit purpose concepts. In this study,

\(^{19}\) D. Catherine ennis, "Purpose concepts in the an existing physical education curriculum", *Research Quarterly for exercise and sports* 56.4 (December 1985) : 332.
quantitative and qualitative methodologies were useful in the discovery and verification of purpose concepts across four curriculum domains. The merger of the two methodologies facilitated empirically based inquiry in the educational environment. Clearly, the study of physical education curriculum is a complex undertaking. The use of theoretical frameworks and multiple data collection and analysis strategies are essential in the study of curriculum in the school setting.

The investigation done by fox\textsuperscript{20} attempted to improve the grade 10-12 physical education programme at a specific high school. Curriculum theories were examined and criteria determined to select ideas which would be applicable to district philosophy and goals. Objectives and program goals for physical education were determined. A course description of the 10-12 itself as course goals were developed based on the selected curriculum concepts. General programs guide and evaluation guidelines were formulated. Purposes and concepts of activities were certified. Learning packets were developed to provide student with a means of gaining experiences in area of interest and to help fulfill one of the goals of the project, which was to

\textsuperscript{20} B. Fox, "10-12 Physical Education Curriculum at Polouse High School," Completed Research in Health, Physical Education and Recreation (Theses Abstract) : (1981) : 59
develop a more personalized physical education program.

The purpose of Barret's study was to analyze how movement education was maintained in American elementary school physical education literature. Specially, this study attempted to provide an accurate description of the origin and subsequent development of movement education as an American elementary school physical education curricular phenomenon, particularly of the 1960s and 1970s. Starting in the 1920s and continuing to the present, this study included people and events that were instrumental to the founding and growth of the concept of movement education. Primary sources relating to the origin and development of movement education in American elementary school physical education were used. The findings suggested that movement education in America elementary school physical education literature was a peculiar blending of what was really two forms of movement education; one uniquely American; one English or Laban. Further, the development of movement education was affected by confusion and criticism, which surrounded the concept, and the lack of a generalisable curriculum. It was also concluded that movement

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education was not the strong curricular thrust it had been in the 1960s and 1970s, although current elementary literature did still reflect movement education concepts, usually with a different, 1960s 'look'.

Nicholl's advanced technology has enabled biomechanists to gather accurate quantitative measurements on many parameters related to human movement. However, the analytic tasks required of the teacher and coach were qualitative in nature. Kinesiologists and biomechanists have presumably believed that under-graduate courses in kinesiology and biomechanics develop a genetic ability with which teachers and coaches analyse movement. All these courses may provide the student with an understanding of fundamental mechanical concepts, there is no data to suggest that they have had an influence on analytic ability. The purpose of this study was to undertake the development implementation, and evaluation of a programme designed to promote skill analysis competency:

The training programme was based on a holistic skill analysis paradigm, which focused on focused on performance technique. Skill analysis viewed as a totality was determined to

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consist of four major phases: (a) pre-observation, (b) diagnosis, and (d) remediation. Associated with each of the phases in the developed training program was an instructional unit consisting of target goals, instruction, learning activities, feedback, resources, visual materials, and assessment. The training programme intervention was implemented to physical education and education teachers and graduate students as a course entitled "Strategies for the Observation" and Analysis of motor Skills. The effectiveness of both the instructional strategies and the entire programme was assessed using a series of quantitative evaluations.

A single-subject multiple baseline research design with probes was used to examine the efficiency of the intervention on a measure of skill analysis competency. The baseline phases of the study measured the subject’s ability to identify errors and determine primary errors from the videotaped performance of three skills. Based on the results of both qualitative evaluations, the skill analysis-training program was concluded to have provided an effective means of changing skill analysis competency.
Nababi\textsuperscript{23} collected empirical data regarding the present status of Iranian physical education at the elementary school level. The study brought out the need for developing physical education programmes for the students of age group 8-11 and also a programme for the exceptional child on sound scientific principles.

Natagmah\textsuperscript{24} made a study to determine the nature of physical education programmes offered in Iowa High Schools, preferred by seniors, recommended by professors in Iowa colleges and universities. After analysing the collected data the investigator concluded that there is a positive relationship between activities offered and activities preferred by seniors. Seniors preferred to have team sports emphasized most. Professors recommended most emphasis for individual/dual and lifetime sports.

\checkmark Subtiles\textsuperscript{25} made a study in order to evaluate and compare country physical education programmes for girls according to an

\textsuperscript{23} Mohammad Nababi, "Redeveloping the Physical Education Curriculum for the Iranian Elementary School," \textit{Dissertation Abstracts International} \textbf{40} (April 1979) : 5913-A.

\textsuperscript{24} Yakuleve Samuel Natagmah, "Physical Education Programmes Offered in IOWA High Schools, Preferred by Seniors, Recommended by Professors in IOWA Colleges and Universities." \textit{Dissertation Abstracts International} \textbf{43} (October 1982) : 1080-A.

acceptable criterion. The study revealed weaknesses such as inadequate facilities, lack of equipment, inadequate country supervisors, lack of marking system and an absence of integrated adapted programme.

Smith²⁶ made a study to analyse the boys physical education programme of Evergreen Park High school which concluded that the programme should provide a sessional programme of activities, that are moderate in cost, vigorous, and a variety of activities with carryover values. It also revealed that the programme should recognize existing unwholesome moves or racial problems in the community and provide publicity to make the community aware of the problems, purposes and progress of the programme.

Bundarrd²⁷ collected data from stratified sample of seventy-two high schools by personal visits. The purpose of the study was to describe the status of instruction in physical education for Iowa Public High Schools in terms of professional preparation, teaching load, combination of subjects taught, activities progression, methods of instruction, techniques of

class organization, testing and measuring techniques, teaching aids available to the teacher, and time allotment for physical education classes. The results of the survey revealed the actual situation of those schools.

Guess\textsuperscript{28} made a survey study of forty-nine independent but no parochial secondary schools in California. He used questionnaire method to determine the extent to which their programmes implemented the recommendations made by the State of California for a boys' four years physical education programme. A majority of independent schools failed to meet the state standards. Common weaknesses were inadequacy of trained personnel, lack of evaluation and lack of school-parent communication. Favourable points found were: limited size of classes, aquatic programmes and inter-scholastic athletic programmes.

As regards the programmes of physical education in India, Varkey\textsuperscript{29} made a study of physical education curriculum for higher secondary schools in Mysore. As a result of the study, arguments were presented for the compulsory inclusion of


physical education in the school curriculum. Standards for play areas, equipment, and leadership inexpensive fitness tests as an aid of planning and evaluating were developed. A curriculum for standards X, XI and XII was planned as a guide for the physical education teacher.

Saraj-Al\textsuperscript{30} surveyed the philosophy and methodology of physical education curriculum at the University of Baghdad and evaluated the data gathered in terms of expert opinions, and found the following deficiencies in the school programme:

i) It did not include all the courses required in the curriculum of physical education;

ii) No emphasis was laid on specialization in certain areas;

iii) Teaching methods were lacking in variety; and

iv) Facilities were insufficient.

The purpose of Amundson's\textsuperscript{31} study was to investigate the curriculum in elementary school physical education as structured at selected California colleges and Universities. Also


\textsuperscript{31} Nena Alice Amundson, "Elementary School Physical Education Programmes of Selected California College and Universities," \textit{Dissertation Abstracts International} 38 (July 1977): 151-52-A.
to ascertain whether revision and reforms were necessary to fulfill a vital need in the elementary school curriculum. The study was concluded with the following observations:

i) There were significant relationships among the objectives of the National and the State Physical education programmes;

ii) Significant relationship existed between the California State requirements for the physical education of elementary school teachers and the physical education curricula of the colleges and universities, and the long range goods of the California physical education.

iii) There was a high relationship between the objectives of physical education of the colleges and universities and the expressed needs and concerns of various elementary school teachers.

On the basis of the findings the following recommendations were made:

i) Communication between the National and the state organizations should be continued and strengthened;

ii) Theoretical information should be translated into practical approaches and practices;
iii) Colleges and University liaison with State, Country and District personnel and programmes should be maintained;

iv) College and University consultants and resource people should be made available to the local schools;

v) The new 1976 State curriculum guide k-3 should assist the implementation of physical education frame work; and

vi) New and experimental programmes should incorporate the psychomotor, effective and cognitive domains, as well as child centered, individualized, and co-operative methods, and the opportunity to exercise both self-expression and formalized games and skills.

Deering's\textsuperscript{32} study designed to meet the needs of girls in Dunber high School of Lynchburg Virginia, and to formulate a functional and practical programme of physical education based on sound educational principles and methods, modified by facilities and available personnel.

Oken\textsuperscript{33} developed a scorecard to evaluate physical education facilities, programme, and administration of physical education and athletics in Nigerian Universities and colleges offering major and minor courses in physical education.

A jury of experts in criticizing the scorecards and making recommendations involved eight schools in a scrutiny, and four schools were involved in actual evaluation. A panel of experts of the B.Y.U., Department of Physical Education also contributed to major development of the scorecard by their critical comments and structured recommendations. Comparisons were made between schools. Weaknesses and strengths of each programme were analysed, and recommendations were made for improvements.

From the analysis of the data it was found that, of the 10 divisions, only 2 divisions received a rating of good and above. The rest fell between average and poor. There is much to be done in developing and improving physical education facilities and programmes in Nigerian colleges and Universities. Recommendations were for the improvement of the programmes, and for constant evaluation of the facilities,

programme, and administration of physical education in Nigeria.

In her study Viswasam\textsuperscript{34} with help of questionnaire tried to find out needs for physical education for girls' schools in different states in India. In the conclusion of her study she recommended, for the progress of education for girls in India that each State should have a woman officer for physical education to co-ordinate physical education and be advisor to the State Directors for physical education on matters pertaining to girls' sports and physical education programme.

Krishnan\textsuperscript{35} surveyed physical education facilities in the city of madras. The study revealed the abnormal pupil-teacher ratio, which was 14 to 19 times less in comparison to general subjects.

Cogan's\textsuperscript{36} study was based on interviews with psychiatrists, psychologists, physical educators and persons in related professions, supplemented by a review of the literature. The body image concept, emphasizing the fallacy of separating mind from body and of emphasizing physical health while


\textsuperscript{35} Maunar Krishnan, "Physical Education Facilities in Madras City," Vvayam (November 964) : 25-26.

\textsuperscript{36} Max Cogan, "Self-understanding Through College Programmes of Physical Education for Men" Completed Research in Health, Physical Education Recreation 5 (1963) : 80.
ignoring psychological factors, provided a starting point for evaluating the contribution of physical education to self-understanding and self-acceptance. Healthy attitudes toward the bodies, the recognition of bodily movement as a means of self-expression, the use of physical activity as a means of releasing socially unacceptable emotions such as hostility, and the appropriate involvement in competitive activities all contributed in this process. The possibilities for developing self-understanding through physical education appeared almost limitless, although they have been relatively unexplored to date.

Smith\textsuperscript{37} examined the nature of problem solving and its potential application in movement education was discussed. The review of studies focused on the unique meanings inherent in human movement, the learner and his perceptions, the teacher's function in the learning environment, and other environmental factors. A discussion was made between problem-centered learning and the application of known principles to new situations. Problem solving was discussed as a process employed by the learner. The teacher's function was considered in assisting problem recognition, motivation, the selection of procedures, and evaluation. Problem solving in movement

education may effectively focus on the capabilities of the body and provide the base for a hierarchy of specific motor skills particularly for elementary school children. Not all situations in which the learner is required to develop a solution involve problem solving. Examples and guidelines for teachers were offered and implications for objectives, curriculum planning and professional preparation were suggested.

According to vanasant\(^{38}\) the psychomotor expression of creativity is a central theme in children's dance pedagogy. Educational opportunities for the development of the creative process in the classroom should result from knowledge of creativity factors and how they can be measured. The study addressed the problems of identifying and assessing creativity in children's dance.

Test batteries have been developed to measure motor creativity but they have been limited to knotting instances of unusual and unique responses. Dance creativity also involves a qualitative juxtaposition of movement elements. The development of a refined movement analysis based on movement as a process in which body effort, and space qualities

occur could be used to identify other elements of motor creativity and to augment creative development in the classroom.

Teagardin\textsuperscript{39} took a study to compare self-concept among students in relation to their physical fitness, motor ability and an overall physical performance. The population was comprised of fifth seventh and tenth graders (n=665) who have regularly participated in athletics and enrolled in physical education classes. We were classified into groups according to grade level, high or physical fitness level, high or low motor ability level and high or low composite level. The subject must have scored in the top 25\% of all subjects tested. To be classified as low in physical fitness, composite levels and motor ability subject must have scored in the bottom 25\% of all subjects tested. Physical fitness level was determined by flexed arm hang, two minute bent knee sit-ups, one and one-half mile run (seven, ten grade). Nine min. run (five grade). Texas Physical Fitness motor Ability Test was used to measure the physical aspect of this study and Bills attitude inventory was used to measure self-concept. ANOVA was used to analyze self-concept

\textsuperscript{39} Steffani Spilman, Teagardin, "A Study of Self-concept in Relation to Physical Fitness and Motor Ability Among Elementary, Middle and High School Girls" \textit{Dissertation Abstracts International} 44 (December 1983) : 1726-A.
in relation to physical fitness motor ability and the composite score. Comparison was made amongst the grades (fifth, seventh and tenth). Fisher's test for independent samples was used to compare self-concept with high and low fitness group. Analysis of data revealed that no significant difference was identified when comparing self-concept among students in relation to their physical fitness motor ability and comparison scores in fifth, seventh grade girls.

Wescott\textsuperscript{40} took a study on 312 students from 22 elective activity classes at south Eastern Oklahoma State University. 31 students from science classes not taking physical education were controls. The Tennessee self-concept scale was given at the beginning and end of a semester. The variables, total positive, physical self, personal, self and self-satisfaction were closely examined. There were no significance differences between experimental and control group. On the post test there were significant differences favouring the experimental group on family self and identity from pre-to-post. The experimental group showed significant improvement on all four of the primary variables that were examined.

\textsuperscript{40} Roberta Wescott, "The Effect of Physical Education Classes on the Self-concept of College Students" \textit{Completed Research in Health, Physical Education and Recreation} 23 (1981) : 188.
Clements\textsuperscript{41} did a study to investigate the extent to which movement education had been implemented in Kindergarten through second grade classes, by examining to what extent elementary physical educators had based their teaching practices on commonly accepted characteristics of the programme. The study sample was delimited from a larger population of teachers (N=79). The selected subjects (N=10) were qualified and experienced. Using the information obtained from initial observations, a document analysis, a questionnaire, and an informal interview which examined pertinent aspects of each participant's background and physical education programme in conjunction with the data obtained from the checklist, the investigator ascertained the extent of actual programme implementation occurring in 60 class observation (i.e. observation per teacher).

The findings were reported in detailed case narratives. A cross case revealed the degrees to which the schools had adopted movement education. Two schools exhibited high occurrence of the theoretical frame works behaviors, methodologies and content themes and two followed

programmes unlike the studies framework.

The study demonstrates how movement education has become an integral part of the overall physical education programme, and how it has been used to maintain a balance in the curriculum and serve as a foundation for more advanced sports skills.

Clayton\textsuperscript{42} studied the movement education as a curriculum concept for physical education at the elementary school level this was interpreted by using a framework drawn from critical theory. More specifically, critical theory was used to develop an interpretation of movement education as it was presented in selected physical education literature during the period from 1960 to 1980.

The interpretive analysis suggested that movement education was and is an available curricular idea rooted in the cognitive human interest in emancipation. Evidence was presented that indicated: movement education grow out of a history of movement analysis, (b) movement education was clearly articulated by professionals concerned with children's movement; and (c) movement education was oppressed by

\textsuperscript{42} Luran Brenda Clayton, "An Interpretation of Movement Education Development from Curriculum Critical Theory" \textit{Dissertation Abstracts International} 49 (February 1989) : 2146-A.
professionals who were operating and writing from a position
developed out of the cognitive human interest in control.

Mahone⁴³ did the study to determine whether physical
educators produce more physically educated students under the
modular scheduling system as compared to traditional
scheduling. Boys and girls of physical education classes in ninth
and tenth grade were used as subjects. A total of 2040 students
were tested during the school year. Of those tested 1191
students were usable for this study. Hypothesis was that there is
no significant difference in physical fitness pre and post scores
between ninth and tenth grade boys and girls enrolled in a
modular and a traditional school. There are no significant
differences in sports skills pre and post scores of the same
subjects of the study.

Instruments used to measure the achievements of
students included 600 yards run, pull-ups to test physical fitness
and various sports skills test. Football and basketball test were
given to all ninth and tenth grade boys, basketball to all ninth
grades girls and volleyball to all tenth grade girls. Sports skills
tests were administered at the beginning and end of each six-

⁴³ Rene Christian Mahone, "A Comparison of Secondary School Students in
Physical Education Classes Attending Schools Scheduled Traditionally and
School Scheduled Modularly" Dissertation Abstracts International 32
(March 1972) : 5022-A.
weeks teaching unit. Statistics showed that there was overall minimal improvement. Correlation matrix showed that there was little correlation of physical fitness scores and sports skill test items. The data presented reveal that student in physical education in these schools did not gain appreciably under either schedule in the area of physical fitness or sport skills. There were few significant gain differences in the group tested.

Dobson44 studied that there is much controversy across the country as to the status of physical education, interscholastic sports, and little league programme for children between the ages of eight to twelve years of age. This study was undertaken to determine the status of physical education and inter-scholastic sports in the public schools of Oklahoma (grades four to six); a sub-study involving little league programs in the communities where the schools were located was conducted for analysis purpose. A questionnaire was used to classify the 690 elementary schools districts in Oklahoma. A stratified random sample of size 50 was drawn from the school districts. Personal visitations were made by the writer to the 50 schools to follow up questionnaire results and to obtain more

thorough answers to various sub-problems.

Majority of elementary schools in Oklahoma had some type of physical education programme. Many of these were very weak and some actually consisted of interscholastic sports rather than basic physical activities for "all" children. More than 50\% of elementary school districts had interscholastic sports programs in operation with basketball, baseball, football track and field and softball (in that order) being more popular.

Schools offering physical education programmes were superior to inter-scholastic sports programmes in the number of skills being offered. A phase of the study, which sought to find out if schools emphasizing inter-scholastic sports were winning more contests than schools emphasizing physical education, revealed they were not doing so. More students were found to be participating in physical education programmes than in inter-scholastic sports programmes.

Mauser and Reynolds\(^{45}\) studied the effects of a developmental physical activity programme on children's body coordination and self-concept. Significant increases in body coordination, little change in self-concept, and moderate,

negative correlations between these variables were found after 12 children participated in an eight-week developmental physical activity programme.

The literature reviewed by the investigator has thrown light on the aspect of physical education and movement education with regard to self-concept of boys and girls amongst various sections.

Many authors have reported that movement education is conducive to the development of positive attitudes towards physical activity. It has also been reported that the physical education programme with a variety of sports develops positive attitude towards physical activity. Teacher behavior has also been reported to influence student attitudes towards physical activity.

Movement has been identified as the genesis of self-concept formation. Research with regard to the comparative effects of movement education and physical education on self-concept are rather conflicting. It has been suggested that children must be intrinsically motivated if positive changes in self-concept are desired.
Hanson and Bauer's\textsuperscript{46} study was to determine the effectiveness of instructions for use on the creative movement processes in developing the motor creativity of fourth grade physical education students. The creative movement processes of varying, improvising, and composing from the process dimension of the purpose process curriculum framework were utilized to plan instructions for developing motor creativity. A model was developed for planning instruction for the creative movement processes approach, including three steps, stating objectives, planning modifications of activity content, and planning feedback. The major conclusions of the study were that instruction focused on the creative movement processes improves general creativity, results in superior performances in motor creativity and motor skill ability and promotes positive effective, social and skill learning student behaviors.

Co-educational courses continue to grow to the extent that the majority of the physical education courses are now co-educational.

\textsuperscript{46} Hanson Margaret and Anne Bauer, "Developing the Motor Creativity of Elementary School Physical Education Students," \textit{Dissertation Abstracts International} S4 (August 1993) : 455 & 456-A.
William47 surveyed physical education in the junior school. A study of the teachers' involvement to find out biographical details, preparation for current involvement in the teaching of physical education and the value of the subject in the junior school. A questionnaire was administered to 300 junior school teachers from one authority, followed by interview with a sub sample which focused on those teaching older juniors. Results indicate that significant members of staff involved in the teaching of physical education have reservation about their adequacy in this area and that many of these are experiencing satisfaction with their training do so because of either a low a priority given to the subject or because of ignorance of the possibilities offered by physical education. Results suggest that this is if not given during initial training, it is unlikely to be sought of a later date.

Ruth48 surveyed a revised physical education curriculum for the public schools to revise the curriculum for the Talso Public Schools in providing a progressive, sequential physical education programme for Grades K-12. The questionnaire was mailed to all 156 Physical Education Instructors in the Talso

Schools to see if a revision of the existing curriculum was needed. The researcher tabulated the results of the survey and converted the results to percentages. In determining the need for the revision of the physical education curriculum, the researcher used the review of the literature and the results of the physical education teachers’ responses to the survey. The researchers were concerned with questions that scored 70 percent or less and concerned those areas that needed to be strengthened.

Klostreich⁴⁹ future trends in physical education curriculum at the undergraduate level: Delphs study to predict future trends in physical education curriculum at the undergraduate level using the Delphi study (seen). The techniques employ a panel of experts individuals recognized as leaders in the field under study with opinion anonymity and control feedback. A panel of 50 experts were asked to participate in competing series of these questionnaires with a return of 74 cent. The result was a list of 34 trends with a high probability of occurrence with trend, durability and estimated time period for occurrence. College physical education administrators and

curriculum specialist to plan future curriculum at the undergraduate level can use the prediction.

Douglas\textsuperscript{50} surveyed physical education in two-year colleges to date in for physical education, facilities activities testing and evaluating curriculum guides, professional and in service preparation of teachers of physical education programmes for the handicapped. The Principals from a stratified random sample of elementary (n=291) junior high school (n=210), were sent questionnaires. A 21% or better response was received from each of the three principal groups.

Watts\textsuperscript{51} conducted a study on junior High School Physical Education Programmes for girls in the state of Illinois. Questionnaire returns from 420 junior high schools in Illinois showed that 27 percent had below average programmes, more information was desired about fitness and grading, and the primary problems were lack of time, lack of facilities, and large classes. A 70 page general curriculum guide covering planning a balanced programme, administration and teaching, and programme evaluation as a means of improvement was


prepared for the educational bulletin service at Northern Illinois university.

Onyiliogwu\textsuperscript{52} studied physical education programme for boys' secondary school in eastern Nigeria. Data from Eastern Nigeria, climatic conditions, cultural patterns, personal experience, and philosophic and programmes of other countries were used as background material. The proposed programme included: recognition by the Ministry of Physical Education as a part of Education, an annual allocation, encouraging young men to study physical education with employment guaranteed, employment of overseas teachers until the need could be met.

Koldus\textsuperscript{53} made a study on appraisal of the secondary school physical education programme in Arkansas, in which the sample consisted of all 459 white secondary school and 30 percent of the 140 Negro secondary schools. A detailed questionnaire was devised and distributed to the schools. Questionnaires were returned by 304 schools (61 percent). The results evaluated against the literature. Conclusions were presented under five headings under five headings:


administration, programme, facilities equipment and supplies, and generalizations.

Butters\textsuperscript{54} studied the physical education curriculum for the Ripon Elementary school to develop a democratically approved curriculum guide to establish a trial programme and had it evaluated by the community, and to secure the cooperation of the self contained classroom teacher and teach physical education during the regular scheduled class periods. The related literature was surveyed as a preliminary to the preparation of a tentative physical education guide. Visits were made to school systems of similar size and specialists in these systems were consulted. Opinions were obtained from university and college physical education, in developing preliminary draft, information was gathered through personal observations, parent's questionnaires and interviews, a functional physical education curriculum guide was developed.

Sanders\textsuperscript{55} studied to investigate the number, types and status of adopted physical education programmes in the schools under study. The study was a descriptive survey, and an instrument was developed, which was primarily a closed form questionnaire.

The questionnaire was mailed to the principals of every Public Secondary school included in the 1982-83 Illinois Public School Districts and Schools Directory, of the 735 possible refers, 532, or 72.4 percent, were returned.

The following conclusions were drawn:

1. The larger the population of the geographic area or the larger the total student population, the higher the incidence of adapted physical education programmes.

2. Handicapped students are mainstreamed into regular physical education in 47.6 percent of the schools.

3. Thirty-one percent of schools offer adapted physical education programmes.

4. In the majority of schools:

\textsuperscript{55} Elizabeth Maryann, Sanders, "An Analysis of Adapted Physical Education in Public Secondary Schools in the State of Illinois," \textit{Dissertation Abstracts International} 46 (September 1985) : 649-A.
a) The adapted physical education class meets five times a week (85.4 percent).

b) Students are grouped to fit their schedules (33.3 percent of) or by handicapped (20.3 percent).

c) Letter grades are used to grade the handicapped students in physical education.

d) Districts do not offer workshops or in service training for faculty in adapted physical education.

e) Excellent, good or adequate facilities and equipment were reported.

5. Many schools (49.1 percent) have teachers teaching adapted physical education who have no adapted background.

Borell\textsuperscript{56} surveyed and evaluated the physical education curriculum, facilities and administration organization in the public secondary schools of Tacoma, Washington, 1963-64. Collectively, the mean score of the 10 areas of the Laporte score card no. II was 16-4 as compared with the suggested average of 15. The schools were strong in activity programme,

locker and shower facilities, supplied and equipment, and organization and administration of class programmes, eleven schools were below average in outdoor areas, 11 located swimming pools, and all were substandard in modified or adapted programmes.

Barratt\textsuperscript{57} surveyed dance curriculum selected colleges and universities with recommended guides for dance curricular designs. The survey was based on questionnaire returns covering administrative procedures, course offerings and sequences, percentage of methods and content courses, and desirable electives. Dance curriculums in education lacked definition as to administration and requirement.

\checkmark Shaw\textsuperscript{58} surveyed the status of required physical education in colleges and universities of United States. The purposes of the enquiry were:

1. To determine the physical education requirement in the colleges and universities of the country.

2. To discover to what extent grades in physical education


were counted in figuring honours by semesters and at graduation.

3. To discover present practices in excusing students from physical education requirements.

The questionnaires were sent to 352 Directors of Physical Education in Colleges and Universities in the United States. A double post card was used to encourage response. Seventy percent questionnaires were returned and the results led to the conclusion that:

1. Sixty percent of the schools had either a four or eight term requirement.

2. Sixty nine percent of the schools grant full academic credit for each semester of required physical education, five percent give some credit, 25 percent give no credit.

3. 50 percent of the schools count physical education grades when computing honours by semesters.

4. Forty nine percent of the school counts physical education grades when figuring at graduation.
Danial\textsuperscript{59} studied profiled Commisson on Accreditation of Allied Health Education Programs (CAAHEP)—accredited athletic training education programme directors (ATEPD’s) perception of entry-level preparation of Certified Athletic Trainer (ATC). Specifically, the study determined the ATEPD’s perception of what should be the entry-level degree for the ATC and to what extent these entry-level professionals need to possess skills of reflections-in-action to be reflective practitioners. The study also identified what ATEPDs perceived as external factors that influence the entry-level degree of athletic trainers. All 160 ATEPDs of CAAHEP accredited entry-level athletic training education programs were surveyed. The researchers-developed survey instrument was sent to the ATEPDs. A response rate of 54.3\% (87 of 160) was obtained after two separate mailings.

ATEPDs strongly believed that the most appropriate entry-level degree would be the baccalaureate and that athletic training is a profession. ATEPDs also perceived that the educational competencies have an effect on the degree level. They believed that domains of psychological intervention and

referral, health care administration, and pharmacology may be those considered to be instructed at the graduate level while all others are better taught at the undergraduate level. Program directors felt that students are taught to apply knowledge clinically. However, they did not believe that students possess critical thinking skills when they begin their athletic training education or that students can reflect upon and understand the new educational competencies.

The result indicated that it is important for athletic training educators to focus on critical thinking skills rather than technical competence. Athletic training education must also concern itself with expending the educational domains at the expense of critical reflective thinking.

Apple and Beans\textsuperscript{60} study focused on the interactive changes students in a high school personal fitness class and their instructor/researcher made throughout the process of creating more democratic learning environment. The framework of democratic curriculum was influenced by interpretation of words by Apple and Bean (1995), Darling-Hammond (1996), Dewey (1961, 1939), and Horks (1994). Backle (1995),

\textsuperscript{60} Apple and Bean: High School personal fitness class and democra ..... \textit{Dissertation Abstract International}, Vol. 63, No.5, Nov. 2002, 1765-A.
influenced fitness curriculum construction. This study employed a qualitative design guided by an interpretive/interventionist theoretical discourse (Green 1993). Documentation of changes emerged from interpretation of students' actions and trader reflections on her own actions. Investigation accrue over the duration of a 16-week semester of a midsection high school.

Methodology included (a) participant observation of daily classes, (b) document analysis of students' work, weekly journals, and transcribed students' focus group interviews, and (c) analysis of students' social responsibility assessments. Two important issues emerged for eliciting students learning and fitness gains. The first revolved around pedagogical changes that supported students' improvement and the second involved efforts the teacher made support students' motivation to voluntary bag-in to the course structures. In conclusion, this study support curriculum guided by tenets of participationary and community democracy in urban secondary physical education setting.

Benhant, Robert H., studied to described and analyze the pedagogical content knowledge of expert golf instructors. The study was guided by a conception of pedagogical content

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61 Benham, Robert H., and Expertise in sports instruction: Examining the pedagogical content knowledge of expert golf instructors.
knowledge forwarded by Lee Shuleman and Colleagues. Qualitative research techniques were used to examine the instructors' conceptions of teaching, pedagogical content knowledge, and their instructional strategies for teaching the most fundamental skill in golf: the full swing. Data collection techniques included reputed observations, video taping of their lesson, a stimulated recall exercise, audio-taped interviews, and document analysis. Case studies were developed to describe and interpret the pedagogical content knowledge of these experts, using Grossman's model of pedagogical content knowledge as an interpretive framework. This investigation revealed a breadth of pedagogical content knowledge and a diverse set of instructional strategies worthy of consideration for novice golf instructors, K-12 physical education teachers, physical education teacher educators, and others involved in the preparation of instructors in the sports of golf. Implications and recommendations for the future study of expert teaching in golf and other sport settings are discussed.
Chandra. The specific aims of the study were: (i) to obtain a first-hand picture of the existing conditions in high and higher secondary schools for imparting physical education, (ii) to ascertain the position of such activities as gymnastics and hiding, which particularly aimed at creating in children a love for open air and healthy way of living and also developing in them a spirit of adventure and cheerful disposition, (iii) to ascertain the position of existing facilities with regard to the organizing of health services in schools, (iv) to determine those specific difficulties that stood in the way of organizing programmes of physical education in schools, (v) to find out the efforts being made by the educational institutions to determine the health and physical status of children in the light of national/international standards as evolved in the National Physical Efficiency (NFE) Test, and (vi) to explore whether the educational institutions located at the same place could have some improved common programmes of organizing health and physical education activities by pooling their resources.

The study was confined to 314 high and higher secondary schools of Haryana. A questionnaire consisting of thirty-five questions was constructed for collecting data.

The major findings of the study were: (i) There was no provision of trained regular staff in government (13.1 percent) and private (62.5 percent) schools. PTIs were working in 63.8 percent government schools. There was no provision of playgrounds in government girls (50 percent) school and there was no gymnasium except in 6.2 percent private schools. (ii) A major portion of expenditure on physical education was on physical education was on refreshment to teams and payment of TA and DA to players and teachers during tournaments and comparatively much less on sports material. (iii) Health and physical education activities mainly consisted of various games and were organised after school hours in 78 percent schools. In 90 percent schools a mass PT programme was organised in the morning daily. A majority of girls schools did not organize activities. (iv) Most of the boys' schools (93.8 percent) participated in school tournaments. (v) There was no provision for health and physical examination of children in government schools (87.5 percent). (vi) A very few (government 3.9 percent and private 12.5 percent) participated in National Physical
fficiency Test. (vii) Stress on academic achievement, shortage of funds and equipment, inadequate playgrounds, lack of provision for school dispensary, lack of provision of separate room-cum-stores, etc., were the common difficulties in organizing programmes of health and physical education. Shortage of trained and experienced staff of physical education to provision of regular refreshment and lack of interest of other staff members were the uncommon difficulties in organizing the programmes of health and physical education. Indigenous games and yogic exercises, fancy marching, action songs, gymnastics, box work athletics, scouting, hiking programmes of play for all, etc., were the suggested activities under health and physical education programmes. (viii) Trained and efficient staff, adequate playgrounds, more funds films on health and physical education, midday meals, regular refreshment, in-service/refresher courses, posts of physical education staff, health records, more periods for physical education etc. were the opinions expressed by the secondary schools, regarding the help which they expected from government/management for organizing health and physical education programmes in order to achieve the desired objectives.
The general objective of the study was to develop an ecology curriculum, which was suitable and effective in developing environmental literacy among the students of Grades VI, VII and VIII of some selected schools of Bangladesh. The study was both a developmental and an evaluative research. The first phase of the study consisted of the development of curriculum, curricular materials and their preliminary and formative evaluation. The second phase of the study comprised summative evaluation or evaluation of the developed materials in the real classroom situations. The design of the study necessitated sampling in two phases, for the formative evaluation and for the summative evaluation. For formative evaluation the samples drawn were subject specialists (four), curriculum specialists (four), classroom teachers (twelve), headmasters (four), textbook writers (three) and parents (twelve) where as for summative evaluation two urban and two rural schools, twelve classroom science teachers, and 552 boys and girls of Grades VI, VII and VIII were selected. The experimental treatment for the teacher consisted of teachers’ orientation programmes, through discussion of content of the students’ materials and the use of the teacher’s manual. The experimental

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treatment for pupils consisted of twelve ecology units. During formative evaluation six types of questionnaires were used where as for summative evaluation achievement tests for teachers and students were used. Attitude scales for teachers and students were also used. The formative evaluation data were analysed using statistical measures like frequencies and summated means; for summative evaluation t-test was applied.

The major findings of the study were:(i) In the formative evaluation, the curriculum and the curricular materials were found suitable and appropriate for the purpose of the study. (ii) The curricular materials were effective in producing significant gain in knowledge of the students about ecological facts, principles, information and the related problems as well as their possible solution.(iii) The curricular materials were effective in producing significant change in the attitudes of the students towards environment in the majority of the grades. (iv) The teachers' manual was effective in producing significant positive changes in the attitudes of teachers. (v) The teachers' manual was effective in producing significant gains in knowledge of teachers about ecological facts and related problems with possible solutions. (vi) There was low correlation between the gain in ecological knowledge and the change in attitude towards
environment. (vii) Rural students possessed significantly less ecological knowledge. (viii) In two grades the rural students showed more favorable attitudes towards environment than the urban students of the same grades, while in the majority of grades there was no significant difference in the mean gain in achievement of the rural and the urban students. (ix) There was no difference between the rural and the urban students with respect to mean gain in attitudes. (x) There was significant difference in the level of ecological knowledge of boys and girls; the girls possessed more knowledge than the boys. (xi) In the majority of the grades there was no difference in attitudes of boys and girls towards environment. (xii) In the majority of the difference between the rural and the urban boys in respect of knowledge in ecology was significant, the knowledge in ecology of urban boys was greater. (xiii) The difference between the rural and the urban boys in respect of attitudes towards environment was significant; the rural boys had more positive attitudes. (iv) There was significant differences between the rural and urban girls in respect of ecological knowledge; the urban girls possessed more ecological knowledge. (xv) The difference in attitudes towards environment between the rural and the urban girls was significant in the majority of the grades;
the urban girls possessed more favourable attitudes in the
majority of the grades.

Ramdas\textsuperscript{64} objectives of the study were: (i) to formulate
operational objectives to be achieved by science teachers in the
classroom, (ii) to implement these objectives and to evaluate
their effectiveness in terms of changes in teacher and pupil
behaviour, and (iii) to develop and test strategies for curriculum
change which would be suitable for Indian conditions.

Two experiments were conducted under this study. One
was carried out with general science curriculum for Standards I
to VII in fifteen primary schools situated in a rural area near
khiroda in Jalgaon district in Maharashtra. The other was carried
out with physics curriculum in Standards IX in fifty selected
secondary schools of the Bombay Municipal Corporation. The
experiments were designed to demonstrate that without altering
syllabus, textbooks and other material conditions in the schools,
and only with some training inputs to the teachers, science
teaching could be improved. Experimental and control groups
were used for the study. In both the experiments, the teachers
were given orientation in objective-based teaching strategies
and more participatory teaching styles. Handbooks were

\textsuperscript{64} Ramdas, J., \textit{Curriculum Development in science relevant to the Indian
prepared for teachers' use. The experiment in the primary school used a systematic observation sheet for observing classroom behavior and an interview schedule for the teachers. In addition, attendance record and examination marks were used for evaluating the outcomes of the experiment. In the secondary schools written tests were prepared specially for the purpose.

The study led to some broad generalizations. The comparison of the control and the experimental groups revealed: (i) Teachers showed some significant changes in they're teaching methods to go beyond the textual material, to include real life experiences and to encourage participation of pupils. (ii) An improvement in the pupil's ability to apply concepts in physics to non-textual situations was also observed. (iii) There was no difference in the use of novel ideas of the experimental and the control groups.

Sundraraj's major objectives of the study were: (i) to prepare curriculum on population education for collegiate students, (ii) to examine its efficacy in terms of pupils' knowledge understanding, application as well as conditioning, awareness, opinion and attitude, and (iii) to make suggestions

and recommendations for effective use of population education curriculum at the collegiate level.

Considering the impact or consequences of population growth phenomena in selected aspects of social and natural environment, the course content was prepared. This was modified after tryout on teacher-trainees. The improved syllabus was tried out in eight arts colleges, both men and women's in the rural and the urban areas. For studying the efficacy of curriculum pretest Post-Test control group design was adopted. Data were collected using a questionnaire for college students' reaction to population education and a set of unit tests. The data were analysed using t-test.

The findings of the study were: (i) Improvement in overall performance through instruction was shown by the significant difference in the mean scores of the experimental group in the Post-Test as compared to those in the pretest. (ii) Performance of the experimental group in the Post-Test was significantly higher than that of the control group in conditioning scores. (iii) Performance of the experimental group on awareness scores in the Post-Test was significantly higher than that of the control group. (iv) Performance of the experimental group on the opinion scores in the Post-Test was significantly higher than that
of the control group. (v) The adjusted Post-Test mean attitude score of the experimental group was significantly higher than the adjusted Post-Test mean score of the control group.

Thakkar\textsuperscript{66} The main objectives of the investigation by were: (i) to seek a rationale for a pre-school curriculum, (ii) to study the existing philosophies, method and practices in the field, (iii) to carry out an initial exploratory survey of the pre-school curriculum in Bombay to elicit the awareness of a cognitive base to the curriculum in the schools, and (iv) to study the visual perception tasks involving not only perceptual discriminations and categorizations but also perceptual sequencing of thought processes, perceiving connection, etc., developing perceptual and language skills and also logical thought processes.

Development of visual perception being a basis of discrimination. The Visual Perception Test (VPT) consisted of pictorial representations of objects from an urban Indian child's environment. The tasks included twenty-one pictures under ten different heads, namely, similarities, differences, size discriminations, what is missing, directions, things that go

together, juxtaposition, identical inversion, spatial configuration, and hidden pictures. For administering the VPT, the sample was from three groups of pre-scholars from three different school between the ages of three and a half to four and a half (in their first year at school). The three strata of urban Indian society considered were school A upper class (Rs. 1000 per month), school B middle class II (Rs.800-Rs.1000 per month), and school C lower middle class III (Rs.400- Rs. 500 per month). The number of children included from the three schools was fifty for the experimental group and fifty for the control group.

First part of the experiment, E1, involved using the VPT as a teaching device for the fifty children of the experimental group in the three schools, second part of the experiment, E2 tested the experimental and control groups by using six papers under six heads (using the most distinctly different concepts) to the two groups. To evaluate the influences of the factors, namely, school or socioeconomic group effect, and their resulting interactions fixed effect model was adopted.

Thakore⁶７ developed a curriculum in population education for secondary teachers under training. The investigator made an elaborate study of all the relevant literature available both in the

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area of the curriculum theory and that of population education. In the investigation, the theory of curriculum has been applied for developing a curriculum in population education for secondary teachers under training for whom there was no precedent or parallel. The model for the process of curriculum development was innovated and its six phases were gone through. The curriculum thus developed was actually tried out for the whole academic year in the normal working conditions. For pretest and Post-Test measurements, the investigator constructed tools such as an attitude scale and achievement test in population education. The assessment aspect complemented the measurement aspect of evaluation. Finally, the curriculum package was developed for the teacher trainees.

Tharyani\textsuperscript{68} main objectives of the study were: (i) to examine the various measures taken by the Government of Maharashtra for the effective implementation of the new curriculum in Classes VIII, IX and X, (to) look at the existing facilities in both the rural and the urban schools in the State for effective implementation of the new curriculum, and (iii) to find out the difficulties experienced by schools in implementing the

\textsuperscript{68} Tharyani, D. D., Critical Study of the Effectiveness of the Revised Curriculum for Classes VIII, IX and X in Maharashtra State, Ph.D.Edu., Bom.U., 1978
new curriculum.

Klostereich\textsuperscript{69} survey or predicting future tense in physical education curriculum at the undergraduate level. The techniques employ a panel of expert individuals recognized as leaders in the field under study with opinion anonymity and control feed work. A panel of fifty experts were asked to participate in competing series of this questionnaire with a returned rate of 75%. The results was a list of 34 tense with a high probability occurrence with tense, durability and estimated time period for occurrence. This prediction can be used by college physical education administrators & curriculum specialist to plane future curriculum at the undergraduate level.

received from respondents

\textsuperscript{69} Klostereich, Allen David, "Predicting Future Trends in Physical Education Curriculum at the undergraduate level : A Delphy Study" Dissertation Abstract International 46 (February 1986) : 2228-A.