CHAPTER II

REVIEW OF THE RELATED LITERATURE
Monly (1964) stated: "Man is the only animal who does not have to begin anew in every generation but can take advantage of the knowledge which has accumulated through the centuries". This fact has particular importance in research work. According to Best (1959), "practically all human knowledge can be found in books and libraries. Unlike other animals that must start anew with each generation, man builds upon the accumulated and recorded knowledge of the past". These words give the investigator some knowledge about the steps already undertaken in a particular direction by other scholars and also saves her from the onus of repeating the same or similar activities all over again. Though this investigator aimed at a comprehensive and thorough survey of the literature related to the subject of her research, it is quite possible that some studies might have escaped her attention. The present review is based upon the literature available on the variables under investigation and is, therefore, confined to only those studies which the investigator could lay her hands upon. The literature reviewed has been discussed chronologically under various sub-headings:
1. Creativity.
2. Socio-economic status.
3. Adjustment.

CREATIVITY

Creativity and teaching success:

Psychologists, sociologists and other scientists have long recognised the importance of creativity for the individual and society in general and to teaching success in particular. In spite of this recognition, however, creative thinking as a factor in teaching success has not been given adequate attention. Adhering strictly to rigid, limited and routine methods of games and sports, educational authorities have allowed little freedom to physical education teachers in demonstrating novelty, originality, flexibility and fluency.

We give now a brief review of the literature on the role of creativity and its components—fluency, flexibility and originality—in successful teaching.

Dosa\textsuperscript{j}h (1956), defining imagination as the power to create new ideas and success in teaching, hypothesized that imagination on the Horn-Hellersberg test was indicative of success in teaching. The co-efficient of correlation between the levels of imagination and the levels of skill in teaching was reported as .71.
By taking a sample of 19 teachers and 461 students, Yamamoto (1963) designed a study to find out the possible relationship between the creative thinking abilities of teachers and their success in classroom teaching. The tests employed were two sub-tests of the Iowa Test of Basic Skills—Test R and Test A— as measures of pupil achievement and the Test of Imagination and the Ask-and-Guess Test, used as measures of creative thinking abilities. Analysis of pre-test and post-test mean scores in student performance indicated that there was, on the reading the comprehensive score, no statistically significant difference in performance between those pupils associated with the high creative teachers and those associated with the low creative teachers. Some difference on the arithmetic skills score was, however, seen between creative teachers and less creative teachers in relationship to mean change in pupil achievement.

McElvain and others (1963) isolated a total of 209 teachers for creativity testing from a summer school. Letters were sent to the teachers. Principals asking them to rate on a five-point scale the overall success of the teachers in the classroom. A Pearson product-moment correlation of -.22 (P > .01) was found between teachers' creativity test scores and the Principals' ratings, indicating that school administrators tend to give lower ratings to highly creative teachers.
Storm and Larimore (1970) reported that figural elaboration (Torrance Tests of Creative Thinking) was significantly related to teaching success ($r = .49$). They found the 'r' between verbal fluency and teaching success to be .60. Crocker (1969) found the 'r' between flexibility and teaching practice marks to be .41.

Raina (1970), while conducting an investigation entitled "Creativity and teaching success" on the basis of relationship among various measures of the non-verbal form of the Torrance Test of Creative Thinking and total teaching practice of teacher trainees, found a positive but non-significant relationship between fluency and teaching practice marks ($r = 0.171$).

Goyal (1973), using both verbal and non-verbal tests (Torrance Tests of Creative Thinking), found that the 'r' between verbal creativity measures, i.e. fluency, flexibility and originality, and theory and skill in teaching varied from .150 to .254, which was statistically significant. In the case of figural creativity, only elaboration was observed to be significantly related ($r = .168$) to theory marks whereas fluency, originality and elaboration ($r = .112$ to .203) was significant to skill in teaching marks. Flexibility, followed by originality, in verbal creativity and in figural creativity were found to be the best predictors for the indices of teaching effectiveness and success.
Whitaker (1976) designed a study to discover the effects of teacher creativity on pupil academic achievement, pupil creative performance, thought processes in classroom verbal interactions and teaching style. Teachers were divided into high creative and low creative groups on the basis of scores on the Torrance Tests of Creative Thinking (verbal and figural). Equivalent forms of the Iowa Achievement Tests were administered. No significant differences in the academic achievement of children taught by high or low creative teachers were found.

Six tests of verbal fluency were administered to 112 undergraduates, and the progress of 38 of them who joined the teaching profession was followed by Knoell (1953). Three independent fluency factors—were represented in these tests and three types of independent ratings were collected from observers, superintendents, and Principals. It was found that correlations between two measures of ideational fluency and various ratings were significant ($r = .30$ to $.40$).

Rosenberger (1978) randomly assigned one of three treatment groups to pre-service teachers enrolled at the University of Colorado. The first two groups were exposed to instructions in divergent thinking procedures, while the latter, the control group, followed the usual sequence of the prescribed elementary mathematics methods course and had additional instructions also in regular sequence. Following
12 hours of instruction over a period of six weeks, the three groups were compared with respect to the scores on the Torrance Tests of Creative Thinking. The study revealed a significant relationship between verbal creativity and ratings on teaching effectiveness in one of three groups. While low positive and negative correlations existed between the TTCT and the ratings on teaching performance in the remaining two groups.

Singh (1978) conducted a study on a sample of 135 male teachers with a minimum of three years' experience in teaching and 2,639 students of Class IX of secondary schools of Udaipur to compare the teachers on intelligence and creativity with respect to their success in teaching. High, average and low groups were formed on the basis of students' ratings, Headmasters' ratings and the performance of students in public examinations. Factors such as geographical location, sex, age, educational qualifications, experience, subjects taught and income were controlled. One of the major findings of this study was that the highly successful teachers possessed better intellectual capacity and higher creative potential than the average teachers who exhibited low success levels.

Farmilo (1981) placed teachers in two effectiveness groups on the basis of ratings given by administrators and the teachers' peers. Scores from the Omnibus Personality
Inventory were used to place 53 subjects in creative and non-creative groups. He observed no relationship between creativity and teaching effectiveness.

Rajni's (1981) study yielded the following conclusions: (i) external assessment in theory was found to be correlated significantly and positively with intelligence at the .01 level of confidence; (ii) external assessment of skill in teaching and external assessment in theory was found to be correlated significantly and positively with the fluency, flexibility and originality totals of verbal creativity at the .01 level; (iii) external assessment in theory was found to be correlated significantly with fluency totals of non-verbal creativity at the .05 level.

McGarvey (1983) reported in his studies that effective teachers were flexible and the ineffective teachers were not so.

Bhagoliwal (1982) discriminated between effective and less effective teachers and found that more effective teachers were, by and large, characterised by their superiority over less effective teachers. He found that successful teachers had more creative potential as indicated by imaginal resources reflected in object-and-person relations and that they had a superior capacity for imaginative and original thinking.

Evans (1984) concluded that there was no significant relationship between perceived teaching success and an
individual's level of creativity as measured by tests of ideational fluency, originality and open-mindedness.

Asha and Dharminder (1985) observed that creativity among teachers was significantly and positively related to teaching effectiveness. They observed from the mean scores of teaching effectiveness that the teachers who were high in creativity were more effective than the teachers who were low on it.

James (1985) designed a study to analyse the relationship among the levels of creativity, self-actualization and teaching effectiveness among selected groups of prospective teachers. This study examined the relationship among the scores on the Torrance Tests of Creative Thinking, the Personal Orientation Inventory, and the East Texas State University Student Teacher Rating Sheet for student teachers. It was concluded that (i) highly creative prospective teachers were also highly self-actualized; and (ii) highly self-actualized prospective teachers were more effective in teaching.

Kash (1987) determined the relationship between student-perceived teaching success and language fluency. Language fluency produced a significant and positive relationship between teaching effectiveness and success.

Duschner (1987) reported an inconsistent relationship between the flexibility of teachers and perceived teaching effectiveness.
Mato (1988) found that effective and successful teachers had significant superiority on intelligence and brightness.

Amra (1988) conducted a comparative study of creative thinking on a sample of 600 sports and non-sports schoolgirls (300 each) in the hill State of Himachal Pradesh (India). She used the creative thinking test constructed by Mehdi (1973) and found that non-sports girls scored better on all creativity variables (fluency, flexibility and originality) as compared to sports girls. The mean scores and 't' values of various combinations of sports and non-sports school girls of rural and urban backgrounds on all the components of creativity taken up showed that the non-sports girls were more creative in thinking than sports girls.

Creativity of the teacher and classroom behaviour

Maheshwari (1976) observed that effective teachers made use of highly creative teaching models. A sample consisting of effective and ineffective teachers was selected. MTAI scores were considered as one of the criteria used to identify the effective teachers. The Flanders Interaction Analysis technique was employed for encoding and decoding classroom verbal behaviour. The classroom observations were encoded by two raters. The inter-rate reliability was found to be 0.34.

Mathew (1976) studied the classroom behaviour of teachers and its relationship with their creativity. He
found that (i) there was a positive correlation between creative teachers' personality and their talk; (ii) there was no significant relationship between creative teachers' personality and their indirect/direct behaviour.

Singh (1978) found that (i) there was a positive and significant relationship between verbal creativity and indirect/direct teaching behaviour; (ii) there was no significant relationship between the verbal creativity of teachers and confusion in the classroom; (iii) there was a positive and significant relationship between the creativity of teachers and their using students' ideas; (iv) there was no significant relationship between the verbal creativity of teachers and their convergent questions and acceptance of students' ideas; (v) there was a negative but significant relationship between teachers' verbal creativity and their talk in the classroom; (vi) there was a positive and significant relationship between the teachers' verbal creativity and the students' talk in the classroom; and (vii) teachers with high verbal creativity significantly talked less, asked more divergent questions and gave more time to students for thinking before responding to their questions than the teachers with low verbal creativity did.

Singh (1978), comparing high and low creative teachers in terms of values, personality adjustment and teaching
attitudes etc. found that (i) though the scores on teachers' attitudes were higher for the creative group than for the non-creative group, the differences between the two groups were not statistically significant; and (ii) the creative group showed significantly better adjustment with respect to a sense of personal freedom and social standards.

Sansanwal and Jarial (1979) found that a highly creative group tended to be cheerful, active, talkative, frank, expressive, effervescent, free of jealous tendencies, adaptable, concerned about others, satisfied and relaxed, whereas the low group was not. These findings indicate that high creative teachers have qualities thought to be worthwhile for teaching effectiveness.

Choudhry (1982) found that (i) there was a significant positive relationship between creative thinking abilities (verbal and figural) and certain indices of classroom verbal behaviour—the pattern of the relationship between figural creative thinking abilities and classroom behaviour was the same as that between verbal creative thinking abilities and classroom behaviour; (ii) high creative teachers increased pupils' freedom to participate by praising, accepting and developing their ideas; (iii) high creative teachers processed the subject content and talked more at the convergent, divergent and evaluative levels and less at the factual level; (iv) in the classes of high creative teachers,
pupils also talked less at the factual and more at the convergent and divergent levels; and (v) the classroom verbal behaviour of the teachers could, to some extent, be predicted by creative thinking abilities, both verbal and figural combined, and particularly by the verbal originality scores.

Morrow (1934), comparing teachers identified as more highly creative teachers and less highly creative on specific elements of classroom atmosphere, found that (i) more highly original teachers fostered greater student interest and more positive pupil-pupil relationships; (ii) teachers scoring high on elaboration fostered more positive teacher-pupil relationships, had a more positive teacher-group approach and encouraged students to offer unusual solutions to problems; (iii) teachers who were more fluent tended to foster a more teacher-focused atmosphere in their classes; (iv) the creativity of the teachers was related to classroom atmosphere, particularly since it related to the social relationships and interactions among students and teachers as well as to encouragement of unusual solutions to problems; and (v) the more creative teachers fostered more positive social interactions and were able to tolerate and encourage higher levels of student productivity.

McConnell's (1987) research design included 26 teachers randomly divided into an experimental group
consisting of 10 subjects and a control group consisting of 16 subjects. He found that training in creativity had an impact upon teachers in terms of their specific behaviours. Following the training, the teachers reported that they were more open with students' ideas and responses, reinforced students, allowed experimentation, and listened more intently to student input.

Creativity and achievement

There have been a number of studies in which the generality of the phenomena creativity and achievement, reported by Getzels and Jackson (1959, 1962) and Torrance (1959, 1960, 1962 and 1966), was later established empirically by employing almost similar research designs as adopted by earlier investigators. Palm (1959), Brown (1960), Yamamoto (1960), Ripple and May (1962), Liberty et al. (1963), Cline, Richard and Needham (1963), Rambo (1964), Bentley (1966), Hasan and Butcher (1966), Swenson (1975) and Majumdar (1978), besides several others, have expressed the view that those superior increative abilities have a greater propensity for success in academic pursuits as compared to their counterparts who have a lower ability in divergent production.

Cropley (1967b) conducted a study on seventh graders by including two groups generally ignored—high-high and low-low groups. His findings supported the hypothesis that
creativity is usefully related to academic achievement. His findings indicated large differences in achievement between the high IQ-high creativity group and high IQ-low creativity group (q=2.95, p < .05). Similarly, the low IQ-high creativity group surpassed the low IQ-low creativity group as the mean achievement scores were significantly different (q=2.58, p < .05).

Mehdi (1973) found a significant relationship between creativity and school achievement. Paramesh (1973) found no significant relationship between creativity and performance.

Shibuya et al. (1973), on the basis of their research findings, suggested that creative abilities should be regarded as an intellectual component. The highest correlation which they reported was between intelligence and creativity, followed by creativity and achievement.

Murphy (1973) re-analysed the data from previous studies on creativity and intelligence and conducted a study on 140 high school sophomores. High findings point to the existence of learning and creativity dimensions containing figural and verbal subfactors independent of intelligence and marginally related to school achievement. The results derived by Crawford (1974) indicate that among sixth graders creative thinking ability, although unrelated to intelligence, is related to achievement and that creative thinking is more related to crystallised than to fluid intelligence. Russell (1975) too suggested that those superior in divergent
production were also superior in academic pursuits.

High and low achievers in reading comprehension, according to the findings reported by Tanprahat (1976), did not differ in their creative abilities.

The results obtained by Patel and Joshi (1978) were well in tune with the above findings. The selected intellectually gifted and functionally gifted subjects for the purpose of their study. It was observed that in the case of the functionally gifted group (having an IQ of 120 and above, and achievement scores of 60 per cent and above), the values of the co-efficient of correlation between creativity and intelligence was higher in most cases than the intellectually gifted children. The enhanced 'r' value of the functionally gifted group as compared to the intellectually gifted group was attributed to the additional academic superiority of the functionally gifted group.

Sandhu (1979) in his investigation reported a significant correlation between creativity and achievement.

Misra (1983) found that originally creative teachers were emotionally more stable, assertive, conscientious, venturesome, tender-minded, shrewd, experimentally self-sufficient, controlled and successful. He also found that teachers' success in producing original thinkers and good citizens depends upon the availability of original teachers
whose personality and activities influence the teaching-learning behaviour in the classroom.

In addition to the above findings, the existing literature also provides evidence to show that creativity is one of the potent variables in scholastic attainment not only in a normal group of children but also when mentally or physically retarded individuals are studied (Bruininks and Feldman, 1970; Cooper, 1975; Cooper and Richmond, 1975). However, the results derived by Halpin, Halpin and Tillman (1973) only partially support these findings as among the blind children only flexibility out of all the creative measures was related to academic success and intelligence test scores.

However, other reports (Mackinnon, 1959; Holland, 1960, 1961; Phatak, 1962; Flescher, 1963; Edward and Tyler, 1965; Dewing, 1970 and Badrinath and Satyanarayam, 1979) supplement the findings of a no creativity-achievement relationship. Similarly, from the analysis reported by Taft (1967) it seems clear that apart from word fluency, creativity tests have no unique contribution to make to cognitive tests in increasing their predicting value for achievement.

Creativity and Gender

Torrance (1961, 1963, 1965) found a number of differences between the two sexes on his measures of
creative thinking. In general, girls excelled boys in all verbal tests. Boys generally excelled girls in figural originality.

Kurtzman and Kenneth, A (1967) found that creative boys were more self-confident and mature than less creative boys. Girls do not differ on these two traits. More creative boys received greater acceptance from their peers but more creative girls were found to be less accepted by their peers.

Raina (1970) found no significant differences in the creative thinking ability of the two sexes as far as verbal creativity was concerned. Males scored significantly higher on the originality dimension of the non-verbal form of creativity tests but, except for this dimension, there were no significant differences between the two sexes on the non-verbal form of the tests.

Passi (1972) found significant differences between the sexes in his creativity test scores. Girls were found superior to boys in non-verbal creativity and boys superior to girls in verbal creativity.

Gakhar (1974) reported the superiority of Class X females over males on the fluency dimension of creativity, while on the other dimensions of creativity no significant differences were observed between the two sexes.
Thorat (1977) could not find any significant differences among college males and females on any of the components of creativity. On the Torrance Test of Creativity, Bedi (1974) reported the superiority of Class IX females over males, but on the same test Lal (1977) could not observe any difference between male and female teacher-trainees on any of the dimensions of creativity.

Rawat and Agarwal (1977), in a study of creative thinking with reference to age, sex, communities and income groups of students of Classes VIII and IX, found that boys scored high on creative thinking as compared to girls in all samples.

Tiwari and Sharma (1978) in a study of sex differences in creative thinking of Grade VIII students noticed that girls showed greater variations in the fluency and flexibility components of creativity as compared to boys, but boys and girls did not differ significantly in any of the three components.

Raina (1980), in a doctoral thesis, compared high creative and low creative students on the measures of cognition, personality and socio-economic status using Torrance's Test. The highly creative students exhibited greater achievement, autonomy, dominance, change and endurance than the low creative subjects. Highly creative females were higher in change and endurance than the low creative males, but the latter were higher in heterosexuality.
The high creative males showed greater achievement, autonomy, dominance, change, endurance and aggression than the low creative males. The highly creative females were significantly higher than the low creative females on achievement, autonomy, dominance, change and endurance, but the latter were characterised by difference, order, affiliation and heterosexuality traits. The low creative males showed greater exhibition, affiliation and heterosexuality and low creative females scored significantly higher than the low creative males on achievement, dominance, change and endurance. Low creative groups gave evidence of significantly greater anxiety than high creative group. Significant differences were found between high creative and low creative subjects on the variable socio-economic status.

Summary:

Even though it is a fact that multi-dimensional results have been shown by the studies listed above, there is ample evidence to justify the inference that the creative thinking abilities of a teacher are a significant variable in teaching success and effectiveness. Irrespective of the tools and procedures used in the appraisal of creative thinking among teachers and the criteria employed to determine their teaching effectiveness, the bulk of the studies examined in the foregoing section clearly establish the view that creative teachers tend to be more imaginative, resourceful, adjustable, flexible and adaptive in handling classroom situations. Creative teachers tend to be more successful
teachers than their less creative counterparts.

That a few investigators report a low positive or even negative correlation between the creativity of teachers and their teaching success and effectiveness does not undermine the importance of creative thinking in teaching effectiveness. The somewhat casual evidence of a low correlation between the two variables can be explained by referring to the low importance that teachers' and especially physical education teachers' creativity is given in the face of traditional models of administration adopted in schools. Consequently, there is neglect of creativity in classroom and evaluation procedures.

Though a lot has been said on the creativity of teachers in general and of boys and girls (students) and men and women (adults) in various walks of life, not much literature is available on the creative ability of specifically physical education teachers. Besides, no such work has so far been undertaken in the geographical area delimited in this study. Hence the present venture was taken up.

**Socio-economic status**

**Socio-economic status and achievement:**

Clark (1927) found that students whose parents had college education ranked higher in scholarship. Bear (1928) found that the occupations of parents were related to the
academic success of their children. Chauncey (1929) in a study concluded that the correlation between achievement and intelligence was but little influenced by age and socio-economic status. In a study Coleman (1940) found that the correlation between socio-economic status and achievement was 0.300 in the eighth and 0.353 in the ninth grade. However, when the IQ or the chronological age or both were held constant, the correlations between socio-economic status and achievement were sharply reduced, but less so in the ninth than in the eighth grades.

Nemzek (1940) reported that the education of parents and their profession had no influence on the academic success of their children. Terman and Oden (1947) found that under-achievers came from homes where the parents had lower education than the parents of achievers. The National Opinion Research Centre (1947) established that the perception of the occupational prestige hierarchy was positively related to the socio-economic class. In another study Davis (1951) reported a correlation of 0.24 between socio-economic status and the eighth grade achievement.

Warner (1941) identifies three criteria to determine the status of individual. These are education, occupation and income.

Malloy (1955) found that the parents of high-achievers had more positive attitudes. Beilin (1956) reported that
there was availability of high-level talent in the lower socio-economic groups, but problems existed in developing this talent because many lower-class individuals did not attempt to get the necessary education or the training needed for high-level jobs.

The individual's social class consciousness, the identification he develops with the group of which he is member (Centers 1949) is directly related to the vocational aspirations he sets for himself (Sewell, Heller and Strauss, 1957). The job pattern of choice corresponds roughly with the job patterns associated with each class in the adult's working world (Hollingshead 1949).

Although there may be several exceptions, there are those who have ability to rise in the occupational scale, yet may not do so for social and economic reasons (Super, 1957).

Gerberich (1957) found a correlation of +0.437 between achievement means and home index (an instrument which takes into account the style of life as well as the income, occupation and education) means for students in 55 Connecticut towns.

A study by Raghavacharyulu (1957) showed a high correlation between socio-economic status and achievement. The studies of Deb (1958), Sharma and Kalra (1960), Sinha and Misra (1960) and Sinha (1960) have explored the role of the sociological and psychological factors in the success
of students of engineering.

Furthermore, the variable socio-economic status, correlated with achievement even when the IQ was average. Rossi et al. (1959) established that the differences among individuals were also accounted for by socio-economic status, i.e. the higher the occupation of the bread-winner in the family, the greater was the level of achievement of the family members.

Impellizzeri (1961) stated that there was a correlation between socio-economic status and ultimate scholastic success. The educational background of the parents and the occupational levels of the students' fathers were also found to be related to the academic performance of the children.

Chitkara (1961), Kaur (1961), Choudhri (1963), Pairthraun (1963) and Sinha (1966) demonstrated the relationship of age, sex, rural background, socio-economic status and family background with achievement. Chitkara and Kaur saw a low-level relationship between social status and achievement, whereas Pairthraun obtained a high correlation.

Lindgren and Guedes (1963) obtained a significantly positive relationship between the parents' education, social status and school marks.

Tseng and Thompson (1968) found that the students of the lower classes tended to select low-level occupations.
Jokl and Jokl (1968), in reviewing the work of Ference Bakonyi, found that outstanding ability to perform is a vital factor that correlates most highly with social status and with peer popularity.

Roger (1953) and Anjaneyulu (1968) found that inadequate salary was one of the main factors behind job dissatisfaction.

William (1969) investigated the relationship of socio-economic levels with educational aspirations and stated that students of upper socio-economic status choose professions of high categories as compared to students of medium status levels. Students of low socio-economic status aspired for low category jobs.

The findings of Anderson and Evans (1969) indicated that variables such as sex, father's education and socio-economic level were predictive of achievement among Mexican-American youth, just as they were in several other groups.

Jolly (1969), while conducting an investigation among secondary school teachers in rural and urban areas in Ludhiana district in Punjab (India), found that socio-economic status, along with other factors, contribute to teachers' dissatisfaction with their lives.

Frost (1970) asserted that although social status and economic status are not synonymous, those who come
from poor families generally feel a greater need for status and acceptance by their peers.

Frost (1970) underlined the importance of social factors by saying: "Physical education teachers and coaches must be attentive to the fact that social and cultural forces are operating constantly and a thorough understanding of these is necessary in any effort to know the many factors causing and revealing behaviour in sports settings".

Guthrie (1971) in a study concluded that high socio-economic status subjects were noticeably superior to low socio-economic status subjects on all treatment conditions. Tseng (1971) supported the contention of other social scientists that certain personality variables were related to the socio-economic status.

Mohan (1972) observed that almost all books on educational psychology stress the relevance of the socio-economic status of the family to subsequent performances of the children. High levels of socio-economic status are usually understood to provide for greater facilitation in education and also better opportunities for intellectual growth.

Mathur and Hundal (1972) found that there existed a close mutual relationship among factors of achievement and family background. The correlations reported by them were
between the parents' income and achievement, 0.41; and between the parents' education and achievement, 0.63. They concluded that the higher the family income, the higher were the achievement levels. Kaushal (1971), however, differed with these findings while studying the effect of family patterns on achievement and concluded that the poor economic standing of a family creates a stimulus for better career orientation and competition than higher family economic levels.

Dutt and Sabharwal (1973) stated that the economic, educational and occupational levels of the father had a relationship with achievement.

Gupta (1973) summed up the outcome of his study by saying that parental occupation, the income status of the family and certain basic facilities for study (a table, chair, etc.) provided to the child at home have a high relationship with his scholastic achievement.

A study by Roberts (1977) showed how teachers ranked good wages as one of the most important job motivation factors. In contrast to this finding, Mayadev (1972) found that salary was not the main factor for job dissatisfaction. Rajagopalan (1976) observed that there was no relationship between sex, qualification, size of the family, place of work of teachers and his or her sense of satisfaction with their profession.
Reddy et al. (1980) examined socio-economic differences among subjects with open versus closed belief systems and found that subjects of a high socio-economic status tended to be more open-minded, while rural subjects were more close-minded than urban or migrant subjects.

Ossandon (1983) investigated the relationship between students' socio-cultural origins and their reasons for choosing a particular course of study via questionnaires. Responses on 911 questionnaires indicated that the students' choice of study was influenced by several socio-economic factors, including parents' educational levels, fathers' occupations, and students' type of scholastic preparations.

Sushma (1999) in her study of personality characteristics, intelligence, achievement motivation, adjustment and socio-economic status of juvenile and adult female offenders found that generally criminals were from the lower socio-economic classes, except urban juvenile delinquents, who belonged to an average category of socio-economic status. She further found in her study that socio-economic status and achievement motivation were significantly correlated with each other in the case of urban and rural juvenile delinquents and urban and rural adult offenders.

Socio-economic status and gender

In a study by Pierce and Bowman (1962) the hypothesis
that high-achieving students come from homes with a high socio-economic status as compared to low-achieving students was supported for tenth-grade girls, but rejected for the tenth-grade boys.

Dixit (1968) investigated sex role consciousness among male and female subjects and found significant differences between upper and lower class groups. Krishna (1979) studied the effect of socio-cultural background on vocabulary and found that females outperformed males.

Galler (1951) found that a large majority of both boys and girls, 12 to 14 years of age, from the upper and middle classes, sought professional and managerial occupations. Among the lower class children the boys divided about one-third each between (i) the professional and managerial occupations, (ii) clerical and (iii) skilled occupations, while an overwhelming majority of the girls chose clerical occupations.

Babelon and Saillard (1973) pointed out that the relationship between the father's occupation and job selection was more pronounced for boys than for girls, whereas Esslinger (1976) gave a similar result in favour of girls.

By taking up different aspects of socio-economic status, Dade (1969) revealed a non-significant relationship ($r = .08, r = .02$) for boys and girls respectively, as far as
the educational achievements of the parents were concerned. Jones (1977) revealed that the father's education and occupation were not related to occupational aspirations of either of the sexes.

Summary:
An overall picture of the relationship between socio-economic status and achievement or success in life situations reveals views at variance with each other, indicating that the results are widespread on both sides of the line dividing high levels of success and low levels of success. It is apparently still to be conclusively decided how socio-economic status affects the achievement of success of physical education teachers. This was the primary motive behind including this variable in the present research project.

In the present study an attempt has been made to locate the importance of some of the socio-psychological variables, such as creativity, adjustment and socio-economic status, as factors which might have a significant relationship with physical education teachers' success and effectiveness.
Adjustment:

Adjustment and achievements in teaching success:

Sinha (1984) found that high achievers had better adjustment, whereas low achievers had average intelligence and a conventional and common approach.

Hoyt and Norman (1959) found that there is a positive relationship between overall adjustment and academic achievement. These results were confirmed by Jensen (1958), who said that high achievers have fewer adjustment problems. Dana and Baker (1961) further confirmed the results of Hoyt and Norman and Jensen and found academic achievement to be significantly and positively related to adjustment.

Dodge (1943), while trying to determine the personality traits of successful teachers, administered a personality inventory to 301 subjects. His findings were that the successful teachers saw themselves as (i) more at ease in social contacts; (ii) more willing to assume responsibility; (iii) less subject to fears and worries; (iv) more sensitive to the opinions of others and (v) slower in making decisions than less successful teachers.

Blair, Jones and Simpron (1956), remarked that adjusted teachers did much to bring about pupil adjustment and, in fact, maladjusted ones might prove a potential cause of the problem of indiscipline and delinquency among students.

According to Evans Norman (1960), a teacher's physical and intellectual conditions have a deep imprint on
his performance as a teacher. He found that the teacher who had better adjustment in the different spheres of his life and work would perform his professional duties well, feel contented and lead a happy life. Professional satisfaction is an important constituent of the life of a teacher.

Studies by Sinha (1966), Crites and Samler (1967) Yellott et al. (1969), Sinha (1970), Millar (1975) and Tewari and Rai (1976) also reported that academic achievement was highly and positively related to overall adjustment. Patel and Joshi (1977) found high achievers to score high on family, personal and total adjustment. Saxena (1978) also found adjustment to be positively related to academic achievement. A non-significant but positive relationship was found between adjustment and academic achievement by Gulati (1979), Houtz et al. (1980), Chatterjee and Bhaskar (1981), Seefeldt (1981) found that children who were high on overall and especially school adjustment, were academically superior too. Gulati (1982) found academic achievement to be positively related to adjustment.

Roy (1972) found that the teaching behaviour of those teachers whose personality adjustment was harmonious, skilful and fine were effective. Malhotra (1976) found that a less adjusted teacher's behaviour was more direct, whereas one better adjusted in behaviour was more indirect in his teaching. Chhaya (1974) too found that there was a significant difference in the personality adjustment
of effective and influential teachers when compared to that of ineffective ones.

Mangal (1984) pointed out that any advancement in the field of education depends upon the degree of involvement of the teacher in his work, which in turn depends upon the degree of adjustment of the teacher with himself and his own environment. The level of adjustment of the teacher is directly linked with efficiency in his work. He added that assessment of adjustment, properly done, might prove helpful in segregating poorly adjusted teachers from those who were better adjusted.

In contradiction to the studies given above, there are a few psychologists who hold that academic achievement is negatively related to adjustment. Studies done by Griffiths (1945) and Lindgren and Mello (1965) prove this point and explain that over-achievers have more adjustment problems, particularly in emotional and health adjustment.

Kakkar (1967) emphasised the role of the school in causing anxiety and problems of adjustment among adolescents. Mehta and Velayudhan (1972) of Baroda, Department of Child Development, have summarised the studies made by their department on the personal adjustment, self-concept, achievement motivation and academic achievement of adolescents. They say: "With respect to menarchial problems of adjustment, the studies show that the menarchial age does not have any
Dale (1967) was unable to find any significant differences on the social and total adjustment scores of students who at the same time were high on academic scores or who were low on it. Morrison (1970) did not find any relation between academic achievement and social adjustment. In a study done by Duner and Magnussan (1979), a linear analysis indicated a zero relationship between academic achievement and adjustment. Morrow (1979) did not find any significant difference between high and low achievers on adjustment. Lambert and Urbanski (1980) found that academic achievement is not related with the adjustment of school children. Schaffer (1981) did not find any significant relationship between adjustment and academic achievement.

Qadri and Umaruddin (1964) found that engineering and technology students who are more creative had better adjustment than pure science students, followed by arts students.

Joshi and Singh (1968) did factor analytical studies of adjustment. The results indicated inter-area dependence in adjustment and also pointed out that the severity of a situation contributes to different areas of the adjustment of teachers.

Buck's (1971) study revealed that persons with good health behaviour tend to be well-adjusted and there is a positive relationship between low health behaviour and low
total adjustment.

Badami and Joswami (1973) found adjustment to be significantly associated with school achievement, sex and the level of parental education. The adjustment of high-achievers was significantly superior to that of low-achievers.

Verma (1979) found that professional (medical) students showed better adjustment than non-professional (arts) students and had a better sense of security, whereas Sathappan and Kuppan (1980) found arts postgraduate students showing better adjustment than science students.

Verma and Upadhyay (1981) held that higher degrees of adjustment were associated with better school achievement.

Sultana et al. (1981) found significant differences in all areas of adjustment. It was found that behaviour problems and problems of adjustment were more common among the urban population.

Gulati (1982) did not find any significant difference between arts and science students in all areas of adjustment.

Bhardwaj (1985) presented an ex-post-facto correlational study of 80 subjects 13 to 14 years old to examine the relationship between adjustment and science achievements. The findings show that adjustment did not affect scientific achievement.

Sushma (1989) in her study of personality characteristics, intelligence, achievement motivation, adjustment
and socio-economic status among juvenile and adult female offenders found that offenders are maladjusted in all the areas of adjustment.

Adjustment differential in sports:

Werner and Gotteil (1966) compared 340 athletic cadets and 116 non-athletes after they entered a U.S. military academy and before they graduated. The athletes were found more social, group dependent, sophisticated and conservative than non-athletes. But even after regular participation of four-year in athletics, the non-athletes did not change in personality structure. It appears that these traits alone led to better adjustment in various spheres.

The general trend in findings on adjustment differentiating between non-sportsmen and sportsmen is supported by Cooper (1969) and Kane (1968). On the basis of a review of the available literature they concluded that, although there is no definite hierarchy, certain adjustment traits go well with superior sports performances. Cooper's (1969) analysis of literature also revealed that athletes tend to be outgoing, adjusted, higher in prestige and social status, stronger competitors, less compulsive, less impulsive, have greater tolerance for pain, low feminine interests and higher masculine ones.

Aventi (1966) administered the Washborne Social Adjustment Inventory to 244 male and female college freshmen
enrolled in activity courses at the college of the Ozarks in 1964. The mean gains were then compared to determine if there was a difference between the gains made in the adjustment levels of the co-educational classes over the segregated classes. The 't' test for difference between independent means was the statistical tool used to make the comparison. The following conclusions were arrived at:

1. Co-educational and segregated classes in physical education do not differ significantly in contributing to the adjustment of college freshmen.

2. In the segregated classes, males and females do not differ significantly in the gains made in adjustment.

3. In co-educational classes, male and females do not differ significantly in gains made in adjustment.

Bosco (1972) administered Cattell's Sixteen Personality Factor Questionnaire to eight champion gymnasts and nine college students of comparable age. The gymnasts scored higher in emotional stability and maturity, confidence and seriousness than the college students. Similar findings have been recorded by Rushall (1967), who conducted a study on athletes and non-athletes. By employing the 't' test, he found that sportsmen were better adjusted than non-sportsmen.

Rider (1974) conducted a study on male senior physical education majors and a normative population. He concluded that physical education majors were emotionally better
adjusted than the normative population.

Analysing the influence of various types of interpersonal behaviour on the effectiveness of sports groups, Slepicka (1975) observed that successful players were more co-operative, emotionally stable, adjusted and aggressive than unsuccessful players. Successful basketball players were found to be more trusting than unsuccessful players (Evans and Quarterman, 1983). Maxeiner (1983) reported that successful volleyball players were emotionally more stable than the lower level players.

Rana (1981) and Dureha, Dilip, K (1986) administered the Sixteen Personality Factor Questionnaire to sportsmen and non-sportsmen of Jivaji University, Gwalior (India), and concluded that sportsmen differed from non-sportsmen in personality characteristics like emotional stability, realism about life, cheerfulness, frankness, tender-minded and adjustment, and had greater control over the emotions and more regard for self-respect and social reputation than the others.

Amra (1989), conducting a comparative study on a sample of 600 sports and non-sports girls (300 non-sports and 300 sports) of Himachal Pradesh (India) on adjustment, using Sinha and Singh's (1984) adjustment inventory observed that the sports girls belonging to rural and urban areas were better adjusted on all variables of adjustment than non-sports girls.
The mean scores and 't' values of various combinations of sports and non-sports girls of rural and urban areas confirmed the above contentions, that is, that sports girls are better adjusted than non-sports girls.

Mann (1983), conducting a study on a sample of 202 athletes (88 individual and 114 team athletes) who had made the grade for their respective events, coaching camps organised by Panjab University, Chandigarh, prior to all India inter-varsity competitions, found that successful individual and team athletes were considerably better in all areas of adjustment as compared to unsuccessful athletes of individual and team sports. The results of the study indicated that successful team athletes with a mean score 29.77 were the best on total adjustment. They were followed by total successful athletes (M=30.74) and successful individual athletes (M=31.91). On the contrary, unsuccessful team athletes, total unsuccessful athletes and unsuccessful individual athletes with mean scores of 87.83, 37.43 and 36.83, respectively, secured lower levels of total adjustment. Successful (individual and team) athletes, being better on total adjustment, recorded notable differences from unsuccessful (individual and team) athletes of their own categories with 't' values of 2.16 (P<.05), 3.99 and 4.43(P<.01), respectively.
Adjustment and gender:

Pack (1936) and Anjaneyulu (1969), asserted that women teachers were more sensitive to social relationships and academic conditions and less adjusted with their work than men.

Bell (1939) brought out significant differences in adjustment between boys and girls. The high school boys had experienced a desire to run away from home more often than the high school girls. The high school girls were more irritated than were the boys by the following home conditions: their parents' parental habits, favouritism among parents, feelings of fear of their parents, conflicting feelings of love and hate for the parents, by parents with violent tempers and by parents criticising their appearance.

Another study by Bell (1939) indicated that delinquent girls gave more maladjusted answers than delinquent boys.

Chase (1951), Belasco and Alutto J.A. (1972), Bernard and Kulanivel (1976) and Anand (1980) reported that women teachers exhibited a higher level of adjustment than men teachers, while Englhardt (1973) and Weaver (1977) did not find any significant relationship between sex and job adjustment.

Anderson and Spencer (1963) found emotionally better adjusted people to be good on academic achievement in arts male and female colleges. Saraswat (1964) compared
girls and boys with a view to study the extent to which boys and girls differ on adjustment. No significant difference was found between the boys and girls.

Female students have scored higher than male students in every test on health behaviour and adjustment (Buck, 1971).

Antonelli and Masciullani (1973) carried out a study on 351 top Italian athletes using the Bell Adjustment Inventory Adult Form. They found that male athletes displayed better adjustment than female ones.

Suvarcha (1976) made a comparative study of adjustment and academic achievement and found males to have better adjustment than females.

Neill (1977), in his research on factors associated with home adjustment, found males to be better on adjustment than females. Patel and Joshi (1977), in their study on adjustment processes, found girls to be high on home adjustment and boys on emotional adjustment, but they did not find any significant differences in total adjustment between the two sexes. Ghorepade (1978, 1979) studied the extent of maladjustment among Bombay University students and discovered that among female students there was a considerably higher incidence of both mild and severe forms of maladjustment than boys. Mohanti and Pani (1979) in a study on adjustment of pupils of Class X, found males to be slightly better than females on different aspects of personality adjustment.
Shukla and Mishra (1980) compared different adjustment areas of 25 mules belonging to a low socio-economic group to 25 males from a higher socio-economic group by means of the Bell Adjustment Inventory. The maladjustment scores of the lower socio-economic group were higher in all the areas.

Alam and Srivastava (1980), in their research on world-mindedness as related to personality types, adjustment and sex, found that persons who had average adjustment were more world-minded than two extreme (high and low) groups and that women were more world-minded than men. Sharma (1981), in a comparative study of extroversion, neuroticism, achievement motivation and adjustment, found that males scored higher on adjustment than females. Malhotra (1981) found males to be better adjusted than females in his study on personality, self-perception and adjustment among university students. Findings also show that there is no significant interaction between adjustment and sex (Bhardwaj, 1985).

Summary:

An overall view of the relationship between adjustment and success in different areas of operation like creativity and socio-economic status paints a vivid picture in which much could be predicted and interpreted. In order to have a clear perception of the problem, it was felt necessary that a study should be conducted on the two
sexes for adjustment among physical education teachers in relation to their success, creativity and socio-economic background.

The present review of literature did indicate that so far as the socio-psychological characteristics of particularly successful physical education teachers are concerned, much work has not been done. The categories of successful and less successful physical education teachers have not been adequately compared on specifically the variables of socio-economic status, adjustment and creativity. Hardly any efforts have been made to work out the combined effect of these variables on teacher-success or teacher-effectiveness. Whatever studies have been carried out on different dimensions on these variables have not been conclusive and have given only multidimensional results, highlighting the need for and importance of the present investigation which we have titled, "Socio-psychological characteristic of successful physical education teachers".