In the previous chapter the researcher presented background of the study. In the present chapter the researcher presents review of related literature.

Looking at published literature is main to the research process of any academic discipline - the more knowledge about a subject, the more insightful and better the work will be. A well conducted literature review is important and will affect how well the report, thesis or dissertation is marked. The Review of Literature is an account or summary of the research done in the areas of investigation or study.

"The literature in any field forms the foundation upon which all future work will be built"  

Some of the reviews reviewed for the proposed study are presented under the following sections.

Section-1: Reviews related to Motor Abilities

Section-2: Reviews related to Yoga and Motor Abilities

Section-3: Reviews related to Self Perception

Section-4: Reviews related to Academic Performance

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SECTION-I

2.1 REVIEWS RELATED TO MOTOR ABILITIES

Fitness is the state, which characterizes the degree to which the person is able to function. Fitness is an individual matter. It implies the ability of each person to live most effectively with his potential. Ability to function depends upon the physical, mental, emotional, social and spiritual components of fitness, all of which is related to each other and is mutually interdependent.²

Motor ability is that ability in the manipulation of the body which is more or less general, which is more or less inherent and which permits an individual to learn motor skills easily and to become readily proficient in them.³

The role of motor abilities, such as, strength, endurance, speed, flexibility, agility and coordinative abilities are the prerequisites for motor actions in all sports. Their improvement and maintenance is crucial in sports training.⁴

Since long, strength, speed, endurance, flexibility, agility and balance are considered to be the components of motor abilities. Recently, the word agility has been replaced by the term coordinative ability.⁵

Motor ability may be taken as synonymous with general Athletic ability and the motor ability tests measure the immediate capacity of a person to participate in a variety of sports. If for example, a person scored exceptionally high on a motor ability test, it would indicate that he had a high degree of present ability for most sport activities. The measure of motor abilities provide an insight into the abilities possessed by an individual, which will have some indication about the manner in which the training is carried out.⁶

Motor ability factors are required in all sports in different proportions and should be specific to the game as the skills are different for each sporting activity. If a performer has a large number of these components, he is said to be a natural athlete, that is he, possesses the foundation from which he can develop excellence in a number of motor activities. The motor ability factors required for basketball players are equally important for football and various other sportspersons. General motor ability in itself does not permit a sportsperson to be excellent performer in any particular activity. It only furnishes the base from which excellence can be achieved by becoming proficient in those skills, which are specific to that particular sport. Some of the components have rather large potential while others have limited potential for development.⁷

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⁶ Mathew, Opt cit., P.10.
Naveen, Kutty and Kumar (2010) studied on “Various Loading Procedures on Maximum Strength and Strength Related Variables”. The purpose of the study was to determine the effect of eight weeks of weight training with different loading procedure on strength related variables like maximum strength, and explosive strength, speed, flexibility, body composition and selected girth in Physical Education post graduate students. Thirty male students studying post graduation at school of Physical Education and Sports Sciences, Kannur University, Kerala were selected as subjects. The subjects were divided into three groups and each group consisted of ten subjects. The experimental group had to undergo weight training programme for a duration of eight weeks with four days sessions pet week. There were two experimental groups: group-I followed the progressive procedure of loading (PLM) and group-II followed the progressive regressive procedure (PRLM) of loading. The control group was not involved in any weight training activities. Pre and post data were collected. Maximum strength was assessed by IRM of bench press and squat, explosive strength by standing broad jump, speed by 50 meters running, flexibility by sit and reach test and body composition by using skin fold caliper. The result of the study revealed that the progressive and progressive regressive improved methods improved maximum strength and the body composition, progressive regressive method of loading improved muscle girth, progressive explosive strength method improved and progressive and progressive regressive method did not improve flexibility.

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Maniazhagu, Manikckam and Lourduraj (2010) conducted a study on “Modes of Aerobic Dancing on Agility, Cardio Respiratory Endurance and Hemoglobin Content of College Men.” The purpose of the present investigation was to find out the effects of two modes of aerobic dancing on agility, cardio respiratory endurance and hemoglobin content of college men. To achieve this purpose 45 men student were selected from Ananda College Devakkotai Tamil Nadu as subjects. Their age ranged from 18 to 25 years. They were divided into three equal groups of 15 subjects each and were assigned as experimental group-I, experimental group-II and control group. The experimental group-I underwent low duration training, experimental group-II medium duration training, and the control group was not given any specific training. All the subjects underwent the test of agility, cardio respiratory endurance and hemoglobin content. Data was collected before and after the training period of 10 weeks. The analysis of covariance was used to analyze the data. The study revealed that the agility, cardio respiratory endurance and hemoglobin content significantly improved due to the influence of the two modes of aerobic dancing.


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players from the state of Kerala, aged between 14 to 18 years were randomly selected. They were divided into four groups - three experimental groups and one control group. Experimental group one was imparted training in isolated parcours, experimental group two in isolated circuit training and experimental group three in combined training (parcours and circuit)). All the three experimental groups were given training for 12 weeks and the control group was not allowed to participate in any training programme. The subjects were tested on dependent variables such as speed, explosive power and cardio-vascular endurance. The data was collected two days before the training schedule and post test was conducted after 12 weeks of training schedule. The data was analysed by applying ANOVA. The result showed that there were significant changes in speed, explosive power and cardiovascular endurance as a result of isolated parcours, isolated circuit and combined training.

Nia, Daneshmandi and Mehrabani (2007),\(^{11}\) found on "effects of a fitness program on endurance and fitness-related knowledge in sedentary college males." For promoting and maintaining health of college students this study was designed. Further we examined the effects of a fitness program on aerobic power, muscular endurance and fitness-related knowledge of 138 young males (aged 21.13 \(\pm\) 1.86 yrs). The subjects volunteered themselves to be the part of study. They were divided equally into experimental and control groups by using random sampling method. The experimental group participated in the fitness program for 8 weeks (3

days per week) and received theoretical fitness-related knowledge coupled with aerobic and muscular endurance exercises and self-directed activities. The control group did not perform any specific type of exercises. Aerobic power and muscular endurance were measured at pre-post tests and fitness related knowledge only at post test. The parameters used in the study were VO$_2$max from 1-mile running test; muscular endurance by push up and sit up tests, and fitness-related knowledge by a self-designed questionnaire. The results at post test showed that VO$_2$max (P<0.0001), push up (P<0.0001), sit up (P<0.0001), and fitness-related knowledge (P<0.0001) in experimental group were significantly more than the subjects of control group. Findings indicated that a fitness program integrated with fitness-related concepts and exercise activities may result in significant improvements in aerobic power, muscular endurance and fitness-related knowledge in sedentary college students.

Nakamura et al (2007)$^{12}$ evaluated the “effects of exercise frequency on functional fitness in older women participating in a 12-week exercise program.” Participants (67.8+/-4.6 years) were divided into three different exercise groups (I, II, and III; n=34) and a control group (Group C; n=11). Group I participated in a 90-min exercise program once a week, for 12 weeks, while Group II attended it twice a week, and Group III attended three times a week. The exercise program consisted of a 10-min warm-up, 20 min of walking, 30 min of recreational activities, 20 min of resistance training, and a 10-min cool-down. The following items were

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measured before and after the program: muscular strength, muscular endurance, dynamic balance, coordination, and cardio respiratory fitness (6-min walking distance). Comparisons of baseline and post-intervention measures showed significantly greater improvements in body weight, coordination, and cardio respiratory fitness for Group III compared to the other groups (p<0.05). In addition, the greatest improvements in body fat, muscular endurance, and dynamic balance were also observed in Group III (p<0.05). However, no significant differences were found in muscular strength. Older women who participate in an exercise program three times a week gain greater functional fitness benefits than those who exercise less frequently. In order to improve functional fitness in older women, an exercise frequency of at least three times each week should be recommended.

Kim and Park (2006) analyzed the “effects of an exercise program on body composition and physical fitness of obese female college students.” Data was collected from September 29, 2003 to December, 29, 2003. The research design was a randomized control group pretest-posttest experimental design. The subjects were college nursing students at K University. Forty four students, 20 in the experimental group and 24 in a control group, with more than 30% body fat were randomly assigned. The subjects in the experimental group participated in an exercise program for 12 weeks, sixty minutes per session, five times per week. Body composition and physical fitness was measured by a body composition

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analyzer, cardiovascular endurance, muscle endurance, muscle strength (grip strength, back strength), flexibility, balance, agility (whole body reaction time) and power (standing long jump). The exercise program was effective in improving body weight, body fat (kg), body mass index, back strength, muscle endurance, flexibility, balance and power of obese female college students.

SECTION-II

2.2 REVIEWS RELATED TO YOGA AND MOTOR ABILITIES:

Shoba (2011)\textsuperscript{14} conducted “a study on the effect of yogasanas on motor, physiological and psychological variables”. (N=100, 50 Boys and 50 girls). She found significant improvement in all the motor variables, physiological and psychological variables selected for the study after six weeks of yoga training.

Srinivasan and Shanbagavalli (2010)\textsuperscript{15} studied the effect of yogic practices and treadmill training on selected physiological variables among college men students (N=30). The subjects were divided into 3 equal groups viz., Experimental group-I (yogic practice group), Experimental group-II (Treadmill group) and control group. Yogic practice and Treadmill training was given for 12 weeks, control group was not given any training. They found that: (1) There was a significant improvement in yoga and treadmill group when compared to the control group. (2) When compared


to yoga and treadmill training group, mean difference showed significant improvement in yogic group on resting pulse rate and VO2max than treadmill training group.

Saminathan (2010)\textsuperscript{16} conducted a study to evaluate the influence of selected yogic asana training of flexibility among sports persons. 40 sportsmen were given yoga training for 8 weeks. After 8 weeks of training he found that yoga training significantly improved flexibility among sports persons.

Amutha (2010)\textsuperscript{17} investigated on “Effect of Selected Yoga Programme on Anxiety VO2max and Flexibility”. The purpose of this study was to find out the effect of selected yogic exercise and pranayama on anxiety, VO2max, and flexibility. For this purpose fifty male students were selected from various high and higher secondary schools in and around Chidambaram town. They were divided into two equal groups one as experimental group doing yoga exercise and pranayama (n=25) and the other as controlled group. The experimental group underwent training for nine weeks, weekly five days, Monday to Friday, between 6.00 a.m. to 8.00 a.m. and control group (n=25) did not participate in any special training. The result of the study indicated that the anxiety was reduced significantly, maximal oxygen uptake and the flexibility increased significantly for the


training group. It was concluded that the yogic exercise had reduced the anxiety and increased the maximal oxygen uptake and flexibility.

Srivastva (2009)\textsuperscript{18} conducted a study on 60 male subjects to find out the effect of yogic asanas on Motor ability. He found that the motor ability had developed through yoga training.

Singh (2009)\textsuperscript{19} studied the "effects of Yogasanas on Selected Physical Fitness Components among Male College Students. The purpose of this study was to find out the effect of Yogasana on selected physical fitness components Twenty men students were selected as subjects from TNPESU Chennai randomly for this study, their age between 20 to 30. They were divided into two equal groups. Namely, experimental and control group. Yogasana training program was conducted for six weeks. Experimental group alone participate in the training schedule. The control group was not allowed to participation in any training programs. The subjects were tested on physical fitness components namely flexibility, agility and abdominal strength at beginning (pre test). And at the end of the training period of six weeks (Post Test) was conducted for both groups. The collected data were analyzed by t-ratio. The results revealed that there was a significant improving in the physical fitness components as a result of Yogasana training.

\begin{flushright}
\textsuperscript{19} Bhupendra Singh, "Effects of Yogasanas on Selected Physical Fitness Components among Male College Students", XIII National Conference on Physical Education and Sports, Bangalore, April 2009, P.10.
\end{flushright}
Satheesh and Urs (2009) studied the “Effect of Yoga on Attention and Concentration and Cardio-Vascular Endurance of Secondary School Kho-Kho Players”, To achieve the purpose of study 60 high school kho-kho boys players aged between 15-17 years were selected as subjects randomly. The subjects were divided into two equal groups of 30 in each i.e., Group-I acted as control group and they did not undergo any training. Group-II acted as experimental group who underwent yoga training for about 30 days in morning 1 hr and in evening 1 hr. The subjects of control and experimental group were measured on the above mentioned criterion variables on day-1 (pre test) and on day 30 (post test). This helps to improve attention and concentration. The results showed significant improvement on selected variables.

Deepla (2008) conducted a study on developing motor abilities of high school students through yoga. The subjects (N=25) were given 12 weeks of Yoga training. After the training he found significant improvement in cardiovascular endurance, flexibility, freedom from obesity, balance and reaction time.

Shoba (2007) studied the effect of yogasanas on physical and psychological parameters of secondary school children. The selected


physical variables were strength, flexibility, cardiovascular endurance and agility and in psychological variables four positive and four negative need satisfaction. After six weeks of yoga training she found significant improvement in the physical fitness parameters and positive need satisfaction and decline of negative traits amongst the experimental group.

**Patil (2007)**

studied the effect of yogasanas on physical fitness of high school children. He gave 10 weeks of yoga training to the experimental group. After 10 weeks of yoga training he found a significant improvement in selected variables except speed.

**Oken et al (2006)** determined the effect of yoga on cognitive function, fatigue, mood, and quality of life in seniors. Randomized, controlled trial comparing yoga, exercise, and wait-list control groups. One hundred thirty-five generally healthy men and women aged 65-85 years were the subjects. Participants were randomized to 6 months of Hatha yoga class, walking exercise class, or wait-list control. Subjects were asked to practice at home also. Outcome assessments performed at baseline and after the 6-months period, a battery of cognitive measures focused on attention and alertness, the primary outcome measures being performance on the Stroop Test and a quantitative electroencephalogram (EEG) measure of alertness; SF-36 health-related quality of life; Profile of Mood States; Multi-Dimensional Fatigue Inventory; and physical measures related to me

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interventions. There were no relative improvements of cognitive function among healthy seniors in the yoga or exercise group compared to the wait-list control group. Those in the yoga group showed significant improvement in quality-of-life and physical measures compared to exercise and wait-list control groups.

Slovacek et al. (2003)\textsuperscript{25} studied 405 kindergarten-through-eighth-grade students who participated in Yoga Ed. at their school. Yoga Ed. was taught as a separate class in the school with certified yoga instructors during the 2002-2003 school year. Physical fitness tests showed improvement over a two-year span. The California state tests for flexibility, upper body strength, and aerobic capacity had a nine-percent increase for elementary students and a twelve-percent increase for middle school students. The results of the physical fitness tests were above average levels of fitness of students throughout the district. The students in fifth grade at The Accelerated School were almost twenty-four percent more fit than the average fifth-grader in the Los Angeles School Unified School District. The seventh-graders at The Accelerated School were almost twenty-nine percent more fit than the average seventh-grader in the district.

Ray (2001)\textsuperscript{26} observed the effect of training in Hatha yogic exercises on aerobic capacity and Physical Education (PE) after maximal


exercise. Forty men from the Indian army (aged 19-23 yr) were administered maximal exercise on a bicycle ergometer in a graded work load protocol. The oxygen consumption, carbon dioxide output, pulmonary ventilation, respiratory rate, heart rate (HR) etc., at maximal exercise and PE score immediately thereafter were recorded. The subjects were divided into two equal groups. Twelve subjects dropped out during the course of study. One group (yoga, n = 17) practiced Hatha yogic exercises for 1 hour every morning (6 days in a week) for six months. The other group (PT, n=11) underwent conventional physical exercise training during the same period. Both groups participated daily in different games for 1 h in the afternoon. In the 7th month, tests for maximal oxygen consumption ($\text{VO}_2\text{Max}$) and PE were repeated on both groups of subjects. The practice of Hatha yogic exercises along with games helped to improve aerobic capacity like the practice of conventional exercises (PT) along with games. The yoga group performed better than the PT group in terms of lower PE after exhaustive exercise.

Samanta and Maity (1999) investigated on “The Effect of Progressive Calisthenics and Yogic Exercises on Motor Fitness Status of Fifth Grade Boys” The main objective of the study was to assess the comparative effect of Calisthenics and Yogic exercises on motor fitness measures of fifth grade boys. Seventy-five fifth grade boys from central zone of Calatta district were selected randomly for experimentation. The

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subjects were assigned randomly into three treatment groups, viz., Experimental Group-I (Calisthenics), Experimental Group-II (Yogic) and Control Group containing twenty-five subjects for each. A table of ten Calisthenics exercise comprising of Jack Jump, step drill, Push-ups, sit-ups, etc. was imparted to Experimental Group-I for ten to thirty minutes thrice a week on alternate days for six weeks. Experimental Group-II was imparted selected Yogic exercises containing 15 items which had the same schedule as given to Experimental Group-I. Control Group was restricted from performing any exercise programme. Oregon Motor Fitness Test was administered to all three groups before and after the experimental period of six weeks. Data were analysed through ‘t’ test and Analysis of Co-variance. Major findings of the study were: (i) Post-test mean gain compared to pre-test mean of Experimental Group-I and Experimental Group-II was found to be significant at .05 level whereas for Control Group no such significant differences were observed. (ii) Improvement of motor fitness due to treatment with Calisthenics exercises for Exp. group-I was not significant compared to Exp. Group treated with Yogic exercises; but approaches significance. (iii) Experimental Group-I & Experimental Gr.-II were found to have significantly improved in motor fitness as compared to control group.

Nandi and Adhikari (1999)\textsuperscript{28} studied “The Effect of Selected Yogic Practices on Cardio-Respiratory Endurance of School Boys.” Cardio-

respiratory endurance is one of the components of physical fitness which can be improved by the Yogic practices. The present study was undertaken on 20 male students of Rajagram S.B. Raha Institution, Bankura. Cardiorespiratory endurance was measured using Cooper’s 12-minute Run/Walk Test. During the experimental period the subjects were given Yogic exercises for a period of eight weeks. Final test was conducted after eight weeks. The data showed a significant improvement in the fitness test as a result of Yogic practices.

Maity, Ghosh and Samanta (1999)²⁹ investigated on “Effect of Kapalabhati on the Performance Capacity of Adolescent Kabaddi Players.” The retention of breath over a shorter and longer period is called breath holding. It was assumed that breath holding capacity affect the performance of Kabaddi players in playing the game. With such idea the researcher undertook the study with the purpose (1) to find out the aerobic capacity; (2) anaerobic capacity, (3) breath holding capacity, (4) to indicate the improvement in the performance of kabaddi players through the practice of kapalabhati. Twenty (20) kabaddi players were divided into two groups (experimental and control). Experimental group was given six weeks training with kapalabhati. Statistical analysis revealed that (1) significant change in breath holding capacity of the experimental group of kabaddi players, (2) better improvement in aerobic & anaerobic capacity of kabaddi players were observed as compared to the control group.

Lelage, Bera and Waghchoure (1999) conducted a study on the effect of Pranayama on cardiovascular endurance of Kho-Kho players. Research literature in sports and allied sciences revealed no information about the influence of Pranayama on cardiovascular efficiency of Kho-Kho players. This experiment, therefore, included forty (N=40) male college level Kho-Kho players, age ranged from 20 to 30 years, from Pravara College of Physical Education (Maharashtra, India). The subjects were randomly assigned into two equal groups (viz., experimental and control) and their cardiovascular efficiency was assessed by administering three tests viz., Harvard Step Test (1=0.63, p<0.01), 8-Minute Run Test (1=0.73, p<0.01) and 1600 M Run Test (1=0.60, p<0.01). The experimental group underwent training of Pranayama (viz., anuloma-viloma, ujjayi, suryabhedana and bhashraka) in two sessions of 45 minutes each day (morning and evening) and 6 days week for a total period of 3 months. The subjects of control group did not participate in the above programme. However, they were kept busy with interesting activities separately during experimental period. As pre-post test data showed a larger variability, the result of ANCOVA revealed - 1) treatment effects of Pranayama on three tests of cardio-vascular efficiency were not same, 2) Harvard Step Test could measure CV efficiency with insufficient reliability (1=0.30, p>0.05) whereas other two tests i.e., 8- Minute Run Test and 1600 M Run test could measure these variables with acceptable reliability (1=0.82, p<0.01;

1=0.80, p<0.01), 3) selected Pranayamas were found useful in improving CV endurance of Kho-Kho players.

Bera et al. (1999) conducted a study on “Effect of Three-Year Yogic Training Programme on Motor Function in School Boys” To examine the claim of Maharshi Patanjali saying “Satu diraha-kala-nairantaryasatkara-sevito drdhbhumin” a longitudinal study was undertaken at Scientific Research Department. K.S.M.Y.M. Samiti, Lonavla. The investigators recorded the long term effect of three different courses, as developed by Swami Kuvalayanandaji, on the attributes of health related fitness of school boys. The subjects (N=52, aged 10-13 yrs.) were the hostelites of Gurukul High School, Lonavla who participated in the selected Yoga schedule in 3 days a week with 45 minutes a day for consecutively 3 years. Multivariate analysis of vari-ance (MANOVA) with repeated measures statistics was used for data analysis. The comparison of experimental group (n = 27) with control group (n = 25) revealed that two variables, viz., flexibility and body balance were improved significantly (p<0.1), while third variable, i.e., body fat % was reduced in the 1st and 2nd year. The result from year second to third showed significant improvement in C-V endurance (p<0.05) and static balance (p<0.01). No significant improvement was evident in grip strength. The over all result indicates that selected Yoga schedules were useful in improving the variables of motor function.

Tellles et al. (1993)\textsuperscript{32} studied on “Improvement in Static Motor Performance Following Yogic Training Of School Children.” Two groups of 45 children each, whose ages ranged from 9 to 13 years, were assessed on a steadiness test, at the beginning and again at the end of a 10-day period during which one group received training in yoga, while the other group did not. The steadiness test required insertion of and holding for 15 see. a metal stylus without touching the sides of holes of decreasing sizes in a metal plate. The contacts were counted as errors during the 10-day period, one group (the 'Yoga' group) received training in special physical postures (asanas), voluntary regulation of breathing (Pranayama), maintenance of silence, as well as visual focusing exercises (tratakas) and games to improve the attention span and memory. The other group (control) carried out their usual routine. After 10 days, the 'yoga' group showed a significant (Wilcoxon's paired signed-ranks test) decrease in errors, whereas the 'Control' group showed no change.

Gitananda and Bhavani (1989)\textsuperscript{33} opines that Suryanamaskar when done properly serve the excellent purpose of providing one of the best systematic scientific stretches possible for the human body. These carefully structured movements balance backward bending with forward bending, stretching upward with stretching down. it increases flexibility of the body, tone up the organs, reduce laziness and fatigue and energize the whole

\textsuperscript{32} Shirley Tellles, B. Hanumanthaiah, R. Nagarathna, and H. R. Nagendra, “Improvement In Static Motor Performance Following Yogic Training of School Children,” Vivekananda Kendra Yoga Research Foundation, Bangalore, India, Accepted March 22, 1993.

organism. Deep breathing while moving adds to the beneficial effect. All in all Suryanamaskar forms one of the most perfect exercises known to man.

Seth (1986)\textsuperscript{34} Bhujangasana is an excellent pose to exercise and strengthen the back muscles. The spine becomes elastic and the chest expands. The Cranial nerves are exercised and are toned up. It reduces abdominal fat.

Vishnudevananda (1959)\textsuperscript{35} By performing Pada hastasan (Count No.2 in Suryanamaskar) Spine becomes supple. The adipose tissue on the abdomen will disappear. This asana is very suitable for reducing excess fat and for developing a graceful figure.

Pant (1931)\textsuperscript{36} while explaining how Suryanamaskar develops the body and mind says that, when properly exercised, muscles, not only get strengthened themselves but tend to increase the energy and improve the quality of all other organs. In first position i.e., in Namaskarasana, sternomastoid, pectoralis major and minor and triceps receive some strain. He says, in Padahastasan the muscles of the calves, the rear part of the thighs, the hips, the waist and almost all the muscles of the back and spine are developed gradually and the elimination of the uric acid and other toxins from those parts takes place. Bracho-radialis, Trapezeus, Latissmus-dorsi, Ciluteii, Biceps-fimoris, Hamstring and Tendon Achillis are strengthened.

\textsuperscript{34} Suman Seth, "Practical Yoga" (1\textsuperscript{st} ed) (Bombay: India Book House, 1986), P.22.
\textsuperscript{36} Balasahib Pant, "Suryanamaskar" (3\textsuperscript{rd} Ed.) (Bombay : Taraporevala Pvt. Ltd., 1931), P.19.
SECTION-III

2.3 REVIEWS RELATED TO SELF PERCEPTION:

Urs and Ashok (2011)\textsuperscript{37} conducted a study to compare the various dimensions of self perception of children who are actively participating in games and sports with the children who do not engage in any sport event. 120 children (60 sports children and 60 who were not participating in any sports) from the schools of Bangalore city were compared. They concluded that (1) students engaging in sports have a favourable self perception than non-sports children. (2) There was no difference between the two groups on the scholastic self and global self.

Ishak, Jamaluddin, and Chew (2010)\textsuperscript{38} Factors Influencing Students' Self-Concept among Malaysian Students. This research examines the students’ self-concept among 16- and 17- year-old adolescents in Malaysian secondary schools. Previous studies have shown that positive self-concept played an important role in student adjustment and academic performance during schooling. This study attempts to investigate the factors influencing students’ perceptions toward their own self-concept. A total of 1168 students participated in the survey. This study utilized the CoPs (UM) instrument to measure self-concept. Principal Component Analysis (PCA) revealed three factors: academic self-concept, physical self-concept and social self-concept. This study confirmed that students


perceived certain internal context factors, and revealed that external context factor also have an impact on their self-concept.

**Vogtmann (2009)**³⁹ “The Effects of Yoga on Children’s Self-Perceived Stress and Coping Abilities.” Stress is a problem for many children in our society. Previous research has shown how yoga can be used to help reduce stress levels. Twenty-seven fourth- and fifth-grade students from an urban elementary school participated in a three-week yoga unit during their physical education class, as a stress management unit. Using a repeated measures design, the participants’ self-perceived stress level, stress coping skills, and perception of yoga was measured. The current study found no significant change in the participants’ self-perceived stress level or stress coping skills after the yoga implementation. There was a significant change in student perceptions of yoga as both physical activity and for relaxation purposes. During the pre-test, 41.8% of participants viewed yoga as both physical activity and relaxation; this number increased to 77.8% at the post-test six weeks later.

**Stewart, Roberts and Kim (2009)**⁴⁰ The Psychometric Properties of the Harter Self-Perception Profile for Children with At-Risk African American Females, Journal of Child and Family Studies, Volume 19, Number 3, 326-333. The Harter Self-Perception Profile for Children (SPPC) is one of the most commonly used measures of childhood self-esteem, yet


there is little research assessing the psychometric properties of the SPPC for use with an African American population. A sample of 92 African American adolescent females ($M_{age} = 12.33$) was administered the SPPC in order to assess its suitability for this population in three ways. First, an exploratory factor analysis demonstrated complex components without any factors being identical to the normative factors. The greatest differences were within the behavior and scholastic subscales which had items cross loading on three different factors. Second, the SPPC demonstrated only moderate internal reliability with subscale alpha coefficients ranging from .71 to .82. Third, a comparison with the Rosenberg Self-esteem Scale provided evidence of poor convergent validity. These results raise questions about the validity of the SPPC for use with African American adolescent females.

Narayana (2009)\textsuperscript{41} studied on “The Effect of Yoga on Visual Reaction Time”. It has often been claimed that yoga practice enhances one’s ability to focus attention, improve cognitive abilities, decreases stress, increases and improves organ system’s strength and suppleness of the nervous system. However, attempt to scientifically validate such claims are very scarce and scattered. If such claims are scientifically valid then yoga practice is expected to have a positive impact upon human reaction time also. The present study makes an attempt to empirically examine and verify the effect of yoga practice on visual reaction time. The study was conducted on a sample of 68 individuals (50 males and 18 females between

\footnote{N.V.V.S. Narayana, “The Effect of Yoga on Visual Reaction Time”, \textit{Indian Journal of Social Science Researches}, (Oct., 2009), Vol.6(2): 63-70.}
20 to 30 years of age). and divided into two groups yoga (n= 26, participants who were yoga practitioners) and non-yoga group (n = 42, those not practicing yoga). Visual reaction time the two groups was measured with the help of the electronic chronoscope. The findings revealed that the subjects who were regularly practicing yoga showed significantly shorter visual reaction time as compared to those not practicing yoga.

Yenagi (2006)\(^{42}\) conducted a study on study habits and function of self-perception among intellectually gifted and non-gifted students. Samples of 1020 pre university college students were randomly selected from colleges in and around Hubli and Dharwad cities of Karnataka state. Study habit inventory by Patel (1976) and self-perception inventory Soars and Soars (1976) were considered for data collection. The results revealed that self-concept was also showed significant difference between intellectually gifted and non-gifted groups.

Sood (2006)\(^{43}\) investigated the educational choice in relation to academic stress, achievement motivation and academic self-concept. There were 90 boys and 90 girls. They varied in age from 17 – 19 years. The tools used were sources of academic stress scale (Rajendran and Kalliappan,1991), academic achievement scale (Deo & Mohan, 1985) and academic self-concept scale (Kumar, 1980).


Richter and Naul (2005) "Psycho-Mental Qualities of Young Soccer Players." It was the purpose of the study to analyze the motor behaviour and the psycho-mental qualities of young soccer players of the '91 squad of the Soccer and Athletics Association of Westphalia (FLVW). A test design was chosen that measures those kills and abilities that are supposed to be important for playing soccer successfully. As regards motor behaviour we analyzed six features: besides the Body Mass Index (BMI) we looked at conditional and coordinative aspects such as speed (Soccer Run), endurance (Shuttle Run), Strength (Jump and Reach; Trunk Lift; Curl Ups) and flexibility (Sit and Reach). The psycho-mental qualities were analyzed via four questionnaires, which measure anxiety in competitive sport, self efficacy in soccer, the physical self-concept as well as task and ego-orientation. The investigation comprised 78 representative players of the FLVW aged 12 to 13 years old (squad ‘91). It was shown that young soccer players have more self-confidence than anxiety, depended on the level of motor performance. The higher the level of motor performance, the less anxious are the players and the more confident are they. The self-concept of the young talents shows significant correlations to their motor performance in speed and aerobic endurance.

Telles (2004) "Effect of Yoga On Mental Health In Children, Patanjali, Yogpeeth, Haridwar, India" Mental health in children has many dimensions such as having healthy interactions with peers and teachers,

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and being able to focus attention on specific activities (e.g., studying) while remaining calm. Another aspect of increasing importance is the sense of self-esteem, which is often associated with a child’s body image and eating behaviors. Yoga is an ancient Indian way of life which includes practicing certain postures, breathing techniques, and meditation. Several studies have shown that yoga practiced for varying durations (from 10 days to 6 months) can favorably influence hand steadiness as an indicator of concentration [1], and the hand grip strength, the degree of optical illusion, and finger dexterity [2]. Yoga practice also improved the performance of children in a spatial memory task [3] and in a cancellation task requiring selective attention [4]. It is of importance to note that yoga practice improves these functions and also reduces physiological signs of mental stress (e.g., a reduced skin resistance value, reduced heart and breath rates with rhythmic breathing) in children [5]. Apart from children with normal health, 20 sessions of yoga led to improvement in boys with diagnosed ADHD, based on five aspects of the Conner’s Parents Rating Scales (i.e., Emotional lability, and Restless/Impulsive behaviors, among others) [6]. Yoga practice has also been shown to have a positive effect on self-concept and eating behaviors [7,8]. In the first study [7], 16 weeks of a healthy lifestyle helped obese adolescent girls to lose weight and significantly influenced their emotional/external/and restrained eating. The second study [8] assessed the effect of yoga practice on youth at risk of developing Type 2 diabetes mellitus. Apart from a weight loss (2 kg after twelve weeks), some of the children showed improved self-esteem. Finally, 12 yoga sessions helped inner-city children in Bronx, New York to have an
improved sense of wellbeing and fewer negative behaviors in response to stress [9]. Hence yoga practice has diverse and useful applications in improving the mental health in children.

Shevlin, Adamson and Collins (2003) investigated on “The Self-Perception Profile for Children (SPPC): a multiple-indicator multiple-wave analysis using LISREL”. The longitudinal psychometric properties of SPPC were assessed using a sample of 157 schoolchildren across four time periods using structural equation modeling. The theoretically derived multidimensional structure of SPPC (Harter, 1985) and its associated reliabilities were found to be fairly consistent overtime. The stability of the factor structure, however, did vary across repeated administrations: the stability of the second-order self-perception factor was relatively low (0.629) between first and second administrations, increasing between times two and three (0.812), while reaching the highest point (0.941) across times three and four. This result could be attributable to either a growing familiarization with scale items, the response format, or natural respondent maturation. While the reason underlying temporal instability is uncertain, the results do suggest that caution should be exercised when interpreting SPPC scores particularly in intervention designs with comparatively long intervening periods.

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Crowley (2002)\textsuperscript{47} studied on “The Psychological and Physiological Effects of Yoga on Children”. The rise in popularity of health practices such as yoga coincides with a period of growing publicity about the benefits of promoting positive health from an early age. Despite this, empirical research in the field is limited. Thus, the aim of the current study was to assess the psychological and physiological impact of a brief yoga program for children using a randomized placebo-control design. Twenty-two school-girls aged 8-10 were recruited to take part in a 6-session after-school program. Participants were randomly allocated to either yoga classes or recreation classes. Heart rate change and respiration rate were measured pre-post program as physiological indicators of relaxation. For mental wellbeing, pre- and post-session mood and pre- and post-program self-esteem and physical self-worth variables were assessed. Later, a replication study was conducted where yoga was offered to the former recreation group. Contrary to expectations, no significant changes were found on the physiological indicators of relaxation. Global self-esteem and physical self-worth variables also remained constant in both the yoga and recreation groups. As hypothesised, significant reductions in anxious mood were consistently reported from the second session onwards following yoga classes. Contrary to expectations however, depressed mood remained unchanged in either group. Results of the follow-up study confirmed most of the findings of the main study, except for a small improvement on the physical self-worth variable of self-perceived sports competency, and no

significant post-session mood changes. Nonetheless qualitative data suggested that this group also experienced anxiety reduction following yoga practice. The results of the project remain speculative because of the small sample size and generous criteria used to determine statistical significance. Despite this, it was concluded that while brief yoga programs might have little impact on children’s overall self-esteem or physical self-perceptions, especially where children are physically active and already enjoy moderate to high levels of self-esteem, yoga classes may contribute to reductions in immediate anxiety levels. While the ability to relax voluntarily was not demonstrated by the end of program, it was suggested that a longer yoga program which incorporated more overt teaching of relaxation skills might produce such a result. This and other recommendations for future research are presented and the implications for the understanding of positive health are discussed.

**Sanchez and Roda (2000)**

“Relationships between Self-Concept and Academic Achievement in Primary Students.” Self-concept, as the perception each person has of himself or herself, is a component of personality development. The objectives we propose are based on verifying the degree of association and prediction between self-concept and academic performance, as well as determining the psychometric properties of the SDQ questionnaire. The sample was formed of 245 primary school students currently studying in public or subsidized schools in America Province (Spain). We obtained data regarding the subjects’ self concept

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through use of the SDQ, and regarding their scholastic performance through marks assigned by their teachers. After verifying the scale’s factorial structure, we established levels of association and prediction between self-concept and academic performance. The obtained a factorial structure for the scale similar to that obtained by Elexpuru, and adequate reliability indexes. We found a close relationship between academic self-concept and measures of academic performance. Additionally we demonstrate that total self-concept and academic self-concept are good predictors of general performance. Our results, for the age of our subjects and in this particular study, support the idea that total self-concept predicts academic performance, the facts being the non-academic self concept negatively predicts school achievement (and that of language arts and of mathematics), while academic self concept powerfully and positive predicts both general achievement as well as that in language arts and in mathematics. We feel it is necessary to give adequate and sufficient attention to self-concept and self-esteem and that teachers should be offered methodological guidance in order to work on these throughout the educational process.

Naqvi, Aisha and Al-Dhaheri (2000)\textsuperscript{49} Cross-Cultural Validation of Harter’s Self-Perception Profile For Children In The United Arab Emirates. Harter’s Self-Perception Profile for children (SPPC) is a self-reporting inventory for ascertaining children’s perception of themselves in various specific domains of their life, as well as their sense of global selfworth. A few studies have examined the psychometric properties of this instrument

in the Western setting, but none have investigated this in an Arabic
culture. Psychometric properties of the SPPC were examined, using a
sample of 100 schoolchildren aged 8 to 16 years in the United Arab
Emirates. The internal consistency reliability was found to be excellent with
Chronbach’s alpha, ranging from 0.86 to 0.92. Significant age and gender
differences were found with the internal consistency reliability scores, being
higher in children aged 13 to 16 years (0.88 to 0.93) when compared to
younger children, especially boys aged 8 to 12 years (0.54 to 0.66),
suggesting a need to exercise caution while using this scale in young boys
in this culture. Behavioral conduct subscale was found to have the highest
reliability score and the strongest correlation to global self-worth ($r=0.54$)
for both younger and older children in our sample. This is in contrast to
findings from similar studies carried out on American and Dutch samples,
where this subscale was found to have the lowest reliability score and the
weakest correlation with one’s global self-worth. The findings indicate that
the SPPC is a reliable and internally valid instrument for use in the Arab
culture.

**Bergh and Marcoen (1999)**50 Harter’s Self-Perception profile for
Children: Factor Structure, reliability, and convergent validity in a Dutch-
speaking Belgian sample of Fourth, Fifth and Sixth Graders”. The aim of
this study was to evaluate the psychometric qualities of the scores of a
Dutch version of Harter’s self-Perception Profile for Children (SPPC) and to
examine gender and grade differences, Participants were 760 Dutch-

50 Bea R.H. Van Den Bergh, Alfons Marcoen, “Harter’s Self-Perception Profile
for Children: Factor Structure, Reliability, and Convergent Validity in a Dutch-
Speaking Belgian Sample of Fourth, Fifth and Sixth Graders”, *Psychological Belgica*,
1999, 39-1, 29-47.
Speaking Belgian Fourth, Fifth and Sixth graders. Harter’s Teacher Rating Scale of Child’s Actual Behaviour (TRS) was used to test one aspect of the convergent validity of the SPPC scores. Factor analyses supported the five-factor solution of the SpPC and the TRS. The internal consistency values of the SPC and TRS subscale scores indicate that each dimension could be reliably measured. Significant cross-informant correlations (convergent validity) were found for almost all subscale scores in all gender and grade groups. ANOVAs conducted on subscale means revealed significant main effects for gender and grade. Boys had higher scores on all subscales except Behavioural Conduct. Younger children scores higher on Physical Appearance and Behavioural Conduct. Physical Appearance was the best predictor of Global Self-Worth for boys and girls and for each grade group.

Schumann et al. (1997) conducted a study on “Psychometric properties of the Self-Perception Profile for Children in a biracial cohort of adolescent girls: the NHLBI Growth and Health Study.” The National Heart, Lung, and Blood Institute Growth and Health Study (NGHS) is an epidemiologic study of 1,213 Black and 1,166 White girls (ages 9-10) of risk factors for obesity. NGHS used Harter's Self-Perception Profile for Children (SPPC) to measure domain-specific competence and overall self-worth. This report reviews the psychometric properties of the SPPC in this biracial cohort at baseline and Year 3 visits (ages 11-12). Simple structure yielding unique components for each of the SPPC domains was obtained for

White but not Black girls, whether analyzed overall or by parental education level. Internal consistency was higher for White girls in both years. The lack of simple structure was reflected in the higher correlations among the subscales for Black girls. The structure and internal consistency improved in Year 3 for Black girls, indicating that the physical appearance and athletic competence domains were not yet fully differentiated at baseline. Readers should be cautious, however, when interpreting the SPPC in young Black girls.

Pujar and Gaonkar (1997)\textsuperscript{52} investigated the influence of age and type of family on self-concept of 142 high and 142 low achieving adolescents. The sample consisted of 8th, 9th and 10th standard students. The self-concept was measured by self-concept inventory of Singh and Singh (1980). The study revealed that with the advancement of age, the level of self-concept was increased among high and low achievers.

Klein and Zehms (1996)\textsuperscript{53} have done a cross sectional study of intellectually gifted females in relation to self-concept. They examined self-concept scores of 104 gifted and 30 non-gifted females in grades 3rd, 5th and 8th to explore whether their Self-concept decline by grade level. The subjects were administered the Piers – Harris self-concept scale. The mean total self-concept scores obtained in six Self-concept cluster areas were compared. Results showed that the total self-concept scores of gifted


subjects declined significantly between grades 3-8 and 5-8 between grades. The mean total Self-concept scores of the control group in grades 3-8 also decline significantly but not between 5-8th grade. 8th grade gifted subjects had a much more negative sense of self in the cluster area of behavior, intellectual and school status and popularity than non-gifted subjects in the same grade level.

Ching (1995)\textsuperscript{54} investigated on “the self-perception of competence by Canadian and Chinese children”. This study investigated cultural differences in self-perception of competence between Canadian and Chinese children. The Self-Perception Profile for Children (SPPC) (Harter, 1985) was administered to 125 fourth-grade Canadian children who were randomly selected from schools in a large urban school district. The Chinese version of the SPPC was given to a comparative sample of 128 Chinese children in Hong Kong. Similar across the two samples was a significant correlation between perceived scholastic competence and performance in a test of math achievement. Interesting cross-cultural differences were also found. Chinese children downgraded their competence in different domains as compared with Canadian children. While the factor pattern of the SPPC for the Canadian sample closely resembled that for Harter's American sample, a different factor pattern of the scale was found for the Chinese sample. Discussion of the results focuses on possible differences in interpretation of meanings of statements on competence perception between children of the two cultural groups.

Granleese and Joseph (1994)\textsuperscript{55} found on Reliability of the Harter Self-Perception Profile for Children and predictors of global self-worth”. Self-Perception Profile Harter's (1985) for Children is one of the measures most widely used by developmental social psychologists. The aim of the present study was to investigate the test-retest reliability of the subscales for 24 children over a 3-year period. The results show that scores on the global self-worth subscale at age 8 correlated highly with scores at age 11 (r = .61) and did not change over time, t(23) = 0.22. These results suggest that perceptions of global self-worth remain highly stable. However, domain-specific measures of competence did not show the same level of stability. Harter (1990) has suggested that global self-worth is a function of domain-specific measures. The relationship between global self-worth and the domain-specific measures was also investigated at each age; although the perception of physical appearance was the single best predictor of global self-worth at both age 8 and age 11, the second best predictor at age 8 was perception of social acceptance, whereas at age 11 it was scholastic competence.

\textbf{SECTION-IV}

2.4 REVIEWS RELATED TO ACADEMIC PERFORMANCE

Kauts and Sharma (2009)\textsuperscript{56} investigated on “Effect of yoga on academic performance in relation to stress.” Academic performance is


concerned with the quantity and quality of learning attained in a subject or group of subjects after a long period of instruction. Excessive stress hampers students’ performance. Improvement in academic performance and alertness has been reported in several yogic studies. The main objective of the study was to assess the effect of yoga on academic performance in relation to stress. The study started with 800 adolescent students; 159 high-stress students and 142 low-stress students were selected on the basis of scores obtained through Stress Battery. Experimental group and control group were given pre test in three subjects, i.e., Mathematics, Science, and Social Studies. A yoga module consisting of yoga asanas, pranayama, meditation, and a value orientation program was administered on experimental group for 7 weeks. The experimental and control groups were post-tested for their performance on the three subjects mentioned above. The results show that the students, who practiced yoga performed better in academics. The study further shows that low-stress students performed better than high-stress students, meaning thereby that stress affects the students’ performance.

Telles et. al. (2007)\textsuperscript{57} research done on “Immediate Effect Of Three Yoga Breathing Techniques On Performance On A Letter-Cancellation Task”. The effects of three yoga breathing practices were evaluated on performance on a letter-cancellation task which is a left-hemisphere dominant task. The three yoga breathing practices (right, left, and

alternate nostril breathing) were selected because unilateral forced nostril breathing stimulates the contralateral hemisphere. There were 20 male volunteers whose ages ranged from 20 to 45 years ($M$ age=28.4 yr., $SD$=5.7). All subjects were assessed before and after four sessions, i.e., right nostril yoga breathing, left nostril yoga breathing, alternate nostril yoga breathing, and breath awareness as a control. The letter-cancellation task scores were significantly improved, i.e., there were fewer errors following right and alternate nostril yoga breathing (Wilcoxon paired signed-ranks test). The improved performance may be related to the enhancement of contralateral hemisphere function found with selective nostril breathing.

**Nuthana (2007)** investigated on “Gender Analysis of Academic Achievement Among High School Students”. Academic achievement is considered as key criteria to judge one’s total academic achievement is considered as key criteria to judge one’s total potentialities and capacities. The performance of every individual is not equal. It may be attributed to number of factors as intelligence, study habits, self-concept, socio economic factors, area etc. So the study was carried out to make gender analysis of academic achievement among high school students on sample of 600 students studying in 8th, 9th and 10th standards of which 325 boys and 275 girls. The sample was selected randomly from two schools of rural and two of Dharwad city, Karnataka state. To measure study habits and self-concept of students, Patel’s (1976) study habit inventory and self-
concept scale of Singh & Singh (1988) were used. To collect the general information of students socio economic status scale developed by AICRP-CD (2002) was used and average of grades of two previous years was taken from school records as a measure of academic achievement. The data thus collected was subjected to mean, SD, t-test, F-test and correlation. The results revealed that majority of the students had good study habits and possessed high self-concept. Academic achievement was excellent among boys and girls. They did not differ on study habits, self-concept and academic achievement. Class wise comparison of study habits and self-concept revealed that 8th standard students were better than 9th and 10th standards. There was significant association between study habits, self-concept, socio economic status and academic achievement among boys and girls. Study habits, self-concept and socio economic status were significantly related to academic achievement. Rural students had better study habits and self-concept than urban students. Urban students had higher academic achievement than rural students.

Slovacek et al., (2003) conducted a survey on the teachers were also a part of taking the survey to help determine if Yoga Ed. was contributing positively in the school. The survey was based on a 1 to 5 scale, five being that yoga influences the student a great deal. The results showed that the classroom teachers felt yoga was influencing in some way the students’ academic performance, focus, ability to deal with anger and

self-control, ability to deal with stress, level of confidence, completion of
their homework, getting along with others, attitude toward their bodies,
and academics. There was no correlation found between yoga participation
and the students’ attendance. The students’ daily attendance levels were
97 to 98 percent average.

Slovacek et al. (2003)\textsuperscript{60} researched whether participants in the
Yoga Ed. curriculum had a change in academic performance while
participating in yoga. Academic improvement was shown to increase in
middle school students who participated in the program. The students’
participation in yoga was correlated with attendance, school discipline
referrals, suspensions, gender, grade levels, ethnicity, and grades. It was
not clear that yoga caused the increase, but it may have contributed to the
results.

Devi and Mayuri (2003)\textsuperscript{61} reported that a study of family and
school factors that affect the academic achievement of residential school
children studying IX and X classes. The sample consisted of 120 children of
Hyderabad city. An interview schedule was developed by the investigator to
study the family factors, the questionnaire administered to the teachers
was developed by the second author to study school factors. The result
indicated that girls were superior to boys. Family factors like parental
aspirations and socio economic status significantly contributed to academic
achievement. Thus, the studies discussed above have pointed

\textsuperscript{60} Ibid.

\textsuperscript{61} Devi, S. and Mayuri, K., “The Effects of Family and School on the
Academic Achievement of Residential School Children”, \textit{J. Comm.Guid. Res.},
Vyavahare and Mandol (1999)\textsuperscript{62} prepared a project named ‘Medha Samskar’ and successfully implemented. The present study was planned to explore memory along with non-verbal reasoning. The training was planned using Medha Samskar, specially designed for students of 9\textsuperscript{th} to 12\textsuperscript{th} standard, combining the principles of positive auto-suggestions and yoga. It was a week long programme one hour everyday. Since 1986 it was used for various students groups total number reaching 18,000. Students studying in 9\textsuperscript{th} standard in a vernacular medium school in the city of Thane were selected as study sample. Index group consisted of 45 students who attended Medha samskar module for one week (1 hour everyday) and one weekly session for the next 2 weeks. The control group consisting of 61 students was not exposed to any intervention. Both the groups were assessed using the following tests before the intervention, after 2 months and 4 months. The battery of test consisted of 1) non-verbal test of intelligence. 2) Rey Osterreith figural memory test, 3) Memory for the passage and 4) continuous performance test. A controlled study of 9\textsuperscript{th} standard students evaluating the efficacy of Medha Sanskar indicates a significant improvement in the scores on sustained attention, non-verbal reasoning and figural memory. Girls from the experimental group had significant improvement in their scores, as compared to boys from that groups, on sustained attention and non-verbal reasoning.

Naveen et al. (1997) School children, aged 10-17, participated in a spatial and verbal memory investigation with yoga nostril breathing. The purpose of this study was to determine if uninostril breathing facilitates the performance on spatial and verbal cognitive tasks, said to be right and left brain functions. The children (n=108) were randomly assigned to five different groups. Each group took a spatial and verbal memory test at baseline. One group received no treatment, while the other four groups participated in one of the following: right nostril breathing, left nostril breathing, alternate nostril breathing, and breath awareness without manipulation of the nostrils. The four breathing treatment groups practiced their specific breathing over the course of ten days. At the follow-up there was a significant increase for spatial memory, but no significant change for the verbal memory assessment. The control group showed no change. This study suggested that yoga breathing can help children increase spatial memory.

Zarb (1981) studied the relationship between academic achievement and six nonacademic variables in ten students. The sample consisted of 30 males and 98 females, from a working class urban neighborhood. The six non-academic variables studied were (i) study habit (ii) self-concept relative to peers (iii) acceptance of educational system, (iv) self-concept relative to family (v) general achievement motivation and (vi) academic self concept. The battery of measures included the academic self-concept scale, survey of study habits and attitudes. Results indicated that

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self-concept and study habits were significant predictors of grade point average for both males and females. These results suggested that the best students in a normal population are not necessarily those with a high self-concept and family self-concept, but those who have developed good study habits and realistically perceive themselves as academically successful.

2.5 OVERVIEW OF REVIEWS:

The purpose of this study was to examine the effect of Yoga on Motor Abilities, Self Perception and Academic Performance.

Some research has been conducted on various aspects of yoga, exploring the effects on physical fitness, motor fitness and psychological variables i.e. stress, anxiety sports achievement motivation, socio-economic status of children, sports persons and college students, but the need for research, especially on the effect of yoga on self perception, academic performance and motor fitness of high school students still exists. Past studies have shown a positive effect of yoga with motor abilities and other psychological variables.