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BREATHING EXERCISE OF YOGA ON HOLISTIC DEVELOPMENT OF SCHOOL CHILDREN

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ABSTRACT

"Oh little one, you are always playing. You are ever happy. You are indifferent to the joys and sorrows of the world. You are my guru." Said *Abadhoota* in *Srimad Bhagabat*, looking at a child playing. (Sahu, 2002)

The one who descends on earth as the messenger of the past and ambassador of the future-containing within him/ herself all powers and possibilities is the child. Each child is unique. Each can express his/her unique potentialities if provided with adequate nurture, appropriate environment and the opportunity. Each one can flourish, shine in his / her own line. The world smiles when the child smiles. The child is not only a potential asset of family and nation but also the future of the world. It is the imperative need of citizens of the world to nourish and educate children leading to their total development and self- expression.Sound health can earn all success and happiness in life. A diseased life is disgusting and most painful which hampers all achievement. A diseased body produces a diseased/ depressed mind and weak thoughts. The rapid industrialisation by modern science and technology has created a situation which prevents man for care and attention on his/her personal health. Good health is nature's gift to man, but man by being occupied with the mechanical life style, has developed a tendency of drifting away from nature. And there is only one way to get out of this vicious circle of mechanical life style is "Pranayam". It is a science and art of better living. Every child in the world should be taught to Practise Pranayam. It enables their body and mind to function smoothly and efficiently and grow in accordance with the laws of nature. Pranayam has a lot of benefits on human life, Pranayam can provide to the human beings an easy solution for agitation, worries, anger, disappointment, fear and lust & other mental problems. More than that it increases the mental capacity, memory power, sharpness, understanding, foresight investigating power, grasping, wisdom intelligence, and other mental qualities. The child can lead a happy and disease-free life with the knowledge and regular Practice of Pranayam. Regular Practice of Pranayam creates the habit of deep breathing automatically. The most apparent benefits of Pranayam are increased oxygenation of blood and increased blood circulation.Generally speaking Pranayam is a system of rhythmic breathing, which strengthens their lungs, normalizes their blood circulation, thereby curing all diseases and giving them longevity. Much research has been done with regards to the effect of Yoga and Pranayam on the adults and the old on various aspects of their personality. But the effect of Pranayam on the school children on various aspects of their personality leading to their holistic development is yet to be found out, Hence the study.

Key Terms: Yoga,Pranayam, Kosa, Holistic Development,School ,Children

Genesis:

Then God formed man out of the dust of the ground and breathed into his nostrils the breath of life, and man became a living being. Man has made tremendous progress in almost every walk of life. Objects once considered impossible to be achieved have now been achieved by us. What we have achieved and accomplished today could not have been imagined in their dreams by our past generations. Modern scientists and researchers have absolutely changed our life style. Science has been incessantly pouring on us new materials and devices to make our life more happy and comfortable.

However, pollution of environment has contaminated our body and mind. We witness despair and disappointment on the faces of our young generation. Signs of restlessness are apparently visible in the dry and dull eyes of our young men and women. Sloping shoulders, flat chests and bulging stomaches have become their characteristics.

Today, we claim that we are modern and civilized but cannot claim that we are genuinely happy. We, today, use tranquillizers for sleep, pills for purgative and tonics for vigour. Tranquillizers and sedatives are in vogue in our modern society. Charmed by and then, addicted to intoxicative drugs, our youth is led to the path of disgrace and self-destruction. Longing for material wealth has hardened our heart. Human values are declining. Work to time, competition and commotion have made us suffer from stress and strain. Mental tension or strain produces undesirable consequences. Stress and strain are the causes of physical as well as psychological diseases such as diabetes, cancer, acidity, ulcer, migraine and hypertension. In these circumstances it is felt the "Pranayam" has an important role to establish harmony and peace within and without. It is a boon and blessing to the humanity. Pranayam can serve as a panacea to cure all diseases and disorders. It makes the organs of the body active in their functioning and has good effect on internal functioning of human body. It can do a lot for health and harmony of man. According to *Vyasa Bhashya*, there is no tapa (Penance) greater than Pranayam. It cleanses the body and knowledge is manifest. **Manu says**, "Just as gold and other metals melted in fire become pure so also the sense organs of the body get rid of impurities by Pranayam."

Pranayam is the fourth and very important stage of *Ashtanga Yoga* advocated by Patanjali. Yoga without Pranayam is not Yoga at all. That is why Pranayam is called the soul of Yoga. Bathing is necessary for purifying the body. Similarly Pranayam is essential for purifying the mind. Pranayam has the capacity offering the mind from untruthfulness, ignorance and all other painful and unpleasant experiences of the body and mind. Pranayam is not an ancient myth buried in oblivion. It is the most valuable inheritance of the present. It is the essential need of today and the culture of tomorrow. As long as there is breath in the body, there is life. When breath departs, so too does life. Pranayam is nothing but a science of life needed for development of an integral man. Where there is Pranayam, there is prosperity, success, freedom and bliss. Life become a celebration once it imbibes Pranayam that leads to making of an equity based, simple, developed, healthy and happy society. Physically, Pranayam appears to be a systematic exercise of respiration, which makes the lungs stronger, improves blood circulation, makes the man healthier and bestows upon him the boon of a long life. Physiology teaches us that the air *(Prana)* we breathe in fills our lungs, spreads in the entire body, providing it with essential food and oxygen. Not only that the veins collect the dross elements from the body, take them to the heart and then to the lungs, which throws the useless material like carbon dioxide out of the body through exhalation. If this action of the respiratory system is done regularly and efficiently, lungs become stronger and blood becomes pure. Several diseases can be averted by regular Practice of Pranayam.When some one starts practising Pranayam, one does not need external stimulants as the body itself secretes required hormones and balances the internal chemical processes. The anabolism, catabolism and metabolism processes in the body i.e. *Vata*, *Pitta* and *Kapha* are maintained in equilibrium. Mind becomes calm, bringing happiness and helps in overcoming depression. One feels a sense of fulfillment in life and this is the glorious truth and essesnce of Pranayam.

Statement of the Problem

The problem under investigation may be stated as follows: **"EFFECT OF PRANAYAM ON HOLISTIC DEVELOPMENT OF SCHOOL CHILDREN."**

Operational Definitions of PRANAYAM

Pranayam is a compound word combining "*Prana*" and "*Ayam*". "*Prana*" means breath, respiration, life, vitality, energy or strength. Hence "*Prana*" can be explained as the vital life force that regulates all activities in this universe.

"*Ayama*" means stretch, extension, expansion, length, breadth, regulation, prolongation, restraint or control. "Pranayam thus means the prolongation of breath and its restraint. Pranayam is the fourth limb of *Ashtanga Yoga*. Pranayam is the measuring, controlling and directing of the breath. Pranayam controls the energy within the organism in order to restore and maintain health and to promote evolution. The *Siva Samhita* calls it *Vayu Sadhana* (*Vayu* = breath, Sadhana = Practice, quest). **Patanjali** in his *Yoga Sutras* describes Pranayam as the controlled intake and outflow of breath in a firmly established posture.

Pranayam is an art and has techniques to make the respiratory organs move and expand intentionally, rhythmically and intensively. It consists of long, sustained subtle flow of inhalation (*Puraka*), exhalation (*rechaka*) and retention of breath (*Kumbhaka*). *Puraka* stimulates the system, *rechaka* throws out vitiated / impure air and toxins, *kumbhaka* distributes the energy through out the body.

HOLISTIC DEVELOPMENT

Holistic development means development of all aspects of human personality – hand, head and heart; body, mind and sprit, Soma, Psyche and logos; inactive, ikonic, symbolic all. It is the process of all–round and integrated development of physical, vital, mental, social, emotional, aesthetic, creative, cultural and spiritual aspects / dimensions of the self of the individual. Holistic development refers to the development of a child into a "Whole person", a "full man" or a total man. Holistic development aims at conative (*Karma*), affective (*Bhakti*) and cognitive (*Jnana*) development of the child, i.e, his physical, muscular, social, emotional, aesthetic, creative, cultural, moral, mental, intellectual, and spiritual development.The whole person combines 5 beings: physical (*annamaya kosha*) vital (*Pranamaya kosa*), mental (*Manomaya kosa*), intellectual (Vijnanamaya Kosa) and psychic / spiritual (*anandamaya kosha*) or the 25 Tattwas which combines 5 great elements, i.e. Ether, Air, Fire, water and Earth; 5 organs of action, i.e. speech organs (mouth), feet, hands, anus and genital; 5 organs of perception i.e. eyes, ears, nose, tongue and skin; 4 inner Organs i.e. *Chitta*, *Manas*, *Budhi* and *Ahamkar* and the real self (*Atman*). Pranayam makes a child complete as a "whole person" which is composed of all the above. See the conceptual table of the 'whole Person' which follows;

TABLE – 4

THE WHOLE PERSON

3 Aspects of Behaviour	3 Yogas	Developments	5 Beings/25 elements (*Tattwas*)
conative	*Karma*	Physical, Muscular	Physical Beings composed of 5 great elements (*Pancha Mahabhootas*) and 5 Action organs (*Pancha Karmendriyas*)
Affective	*Bhakti*	Social, Emotional, Aesthetic creative cultural and moral	vital being composed of 5 vital Airs (*Pancha Pranas*) and Mental being composed of 5 organs of perception (*Pancha Jnanendriyas*)
cognitive	*Jnana*	Mental Intellectual and Spiritual	Intellectual being composed 4 Inner organs(*Chatuh Antah – Karan*) and Psychic/ Spiritual Being(the real self)

OBJECTIVES OF THE STUDY

1) To study the effect of Pranayam on the development of Physical Health Status of Upper Primary students.

2) To study the effect of Pranayam on the Academic achievement of Upper Primary students.

3) To study the effect of Pranayam on the development of the study-habits of Upper Primary students.

4) To study the effect of Pranayam on the development of Social Maturity of Upper Primary students.

5) To study the effect of Pranayam on the development of Self-Discipline of Upper Primary students.

6) To study the effect of Pranayam in the Academic achievement of high and Low intelligent Upper Primary students.

7) To study the effect of Pranayam in the development of study-habits of High and Low intelligent Upper Primary students.

8) To study the effect of Pranayam in the development of social-maturity of High and Low intelligent Upper Primary students.

9) To study the effect of Pranayam in the development of self-discipline of High and Low intelligent Upper Primary students.

10) To find out the correlation between the obtained scores of intelligence and Academic achievement consequent upon practising Pranayam.

11) To find out the correlation between the obtained scores of intelligence and study-habit after practising Pranayam.

12) To find out the correlation between the obtained scores of intelligence and social-maturity after practising Pranayam.

13) To find out the correlation between the obtained scores of intelligence and self-discipline consequent upon practising Pranayam.

14) To find out the correlation between the obtained scores of Academic achievement and study-habits after practising Pranayam.

15) To find out the correlation between obtained scores of Academic achievement and social-maturity consequent upon practising Pranayam.

16) To find out the correlation between the obtained scores of Academic achievement and self-discipline after practising Pranayam.

17) To find out the correlation between the obtained scores of study-habits and social-maturity after practising Pranayam.

18) To find out the correlation between social maturity and self-discipline after practising Pranayam.

19) To suggest the educational Authorities/curriculum planners, Teachers and Parents to make Pranayam an integral part of school curriculum.

Hypotheses

1. There is no significant difference in the mean physical health status gain scores of experimental and control group of upper primary students after practising Pranayam.

2. There is no significant difference in the mean Academic achievement gain scores of experimental and control group of upper primary students after intervention of Pranayam.

3. There is no significant difference in the mean study-habits gain scores of experimental and control group of upper primary students after practising Pranayam.

4. There is no significant difference in the mean self-discipline gain scores of experimental and control group of upper primary students after the treatment of Pranayam.

5. There is no significant difference in the mean social-maturity gain scores of experimental and control group of upper primary students after practising Pranayam.

6. There is no significant difference in the mean Academic achievement scores of high and low intelligent students of experimental group on post-test.

7. There is no significant difference in the mean study-habits scores of high and low intelligent students of the experimental group.

8. There is no significant difference in the mean social maturity scores of high and low intelligent student of the experimental group.
9. There is no significant difference in the mean self-discipline scores of high and low intelligent student of the experimental group.
10. There is no significant correlation between the obtained scores of intelligence and academic achievement test after practising Pranayam.
11. There is no significant correlation between the obtained intelligence and study-habits test scores after practising Pranayam.
12. There is no significant correlation between the obtained scores of intelligence and social-maturity test scores after practising Pranayam.
13. There is no significant correlation between the obtained scores of intelligence and self-discipline test scores after practising Pranayam.
14. There is no significant correlation between the obtained Academic achievement and Study-Habits test scores after practising Pranayam.
15. There is no significant correlation between the obtained Academic achievement and Social-Maturity test scores after practising Pranayam.
16. There is no significant correlation between the obtained Academic achievement and Self-Discipline test scores after practising Pranayam.
17. There is no significant correlation between the obtained Study-Habits and Social-Maturity test scores after practising Pranayam.
18. There is no significant correlation between the obtained Social-Maturity and Self-Discipline test scores after practising Pranayam.

DELIMITATION

To-day, yoga has acquired global recognition and an exalted status as an ancient health, building system. It is the spiritual journey from ignorance to knowledge, morality to immorality, obvious to hidden and peace to ultimate tranquility. It is the inner journey from thoughtfulness to emptiness, subjective to objective concentration, determinate to indeterminate *Samadhi* and extrovertedness to introvertedness and being in judgment (gifted with unshakable mental equilibrium). However, the present study is delimited under following heads to bring it within the resources and limitations of researcher.

1. It is confined for Orissa students.
2. It is confined for the Seventh (VII) Class student of Balasore District.
3. The study is restricted only to two schools of Balasore which are representative of other schools of Balasore District.
4. The sample size is restricted to 60 students only.
5. The sample of the study is restricted to see the effect of Pranayam on physical health status, Academic Achievement, intelligence, Social Maturity and self-discipline of VII grade students.

   The findings of the studies also confined to these delimitations.

THE METHOD OF THE STUDY

Population and The subjects/sample:

A sample is a miniature picture of the entire group of aggregate from which it has been taken. In other words it is a small representation of a large whole. In the present study the investigator has selected a sample of 60 students of VII Grade (Boys and Girls) of Upper Primary Schools of Balasore District. By using cluster random sampling technique sample has been determined. Care was taken to make the sample free from sampling error as far as possible. Due to limitation in of time the investigator had to take only two schools. The list of the two schools selected and the number of students drawn from each school is shown in table - 6.

TABLE - 1

Group-wise distribution of total number of students.

S.I	Name of the School	Number of Students	Number of students for treatment					
			EXP. Group			Control Group		
			Boys	Girls	Total	Boys	Girls	Total
1	Parulia U.G. U.P	30	7	8	15	8	7	15
2	Dangarpada M.E.	30	8	7	15	7	8	15
Total		60	15	15	30	15	15	30

The Research Instruments/Tools

In order to obtain desired data for the present study various tools were used, Physical Health Status check list, Intelligence Test, Achievement Test, study-habits inventory, Social Maturity Scale, Self-Discipline Scale were used for the present investigation. The description of the tools were given here under with separate captions:

To study the effect of Pranayam on the holistic development (i.e. physical health status, intelligence, academic achievement, study-habits, social – maturity and self-discipline of the upper primary school children the investigator collected data with the help of different scales.

The data so collected in respect the effect of Pranayam on physical health status of the upper primary school children were analysed in descriptive method. The data with regard to the effect of Pranayam on intelligence, academic achievement, study-habits, social-maturity and self-discipline were analysed statistically employing Mean, Standard Deviation and 't' – value.

EFFECT OF PRANAYAM ON THE PHYSICAL HEALTH STATUS OF UPPER PRIMARY STUDENTS.

To study the Physical Health status of Upper Primary school children the investigator adopted Participatory observation and interview method. The investigator took 15th students from each group. The pre-test was administered on date- 6.9.2008 before the intervention i.e., the training and practice of Pranayam on both the groups and a post –test was administered after the intervention i.e., after six months of training/practice of Pranayam i.e., 06.03.2009 by the students. To study the impact of Pranayam on the Pathological aspects of the children's health some pathological tests were administered. For this a pathologist of the local Govt. hospital was contacted. He conducted the Pathological studies twice, in six months interval as a pre-test and post-test.

The pathological test was administered on 15 children of each group. For convenient analysis and interpretation of data the pathological reports of ten children of each group i.e. experimental and control has been reflected in the Table 1.1 and 1.2 respectively and analysed and interpreted there after. The observed and tested data of the children are presented below.

Table – 4.1

4.1. The pre-test and post-test results of the effect of Pranayam on the physical health status of Upper primary students of the Experimental group.

Table – 4.1 shows the pre-test and post-test results of the effect of Pranayam on the physical health status of 10 upper primary school children in the Experimental group. It shows their height, weight, normal breath rate, general vision eye-sight defect, running nose, skin patches mouth odour, digestive disorder, physical activeness, pathological aspects of their health i.e. stool, urine, blood and Exceptional problems / handicaps i.e. speech defect, hearing impairedness, mental retardation.

The table shows that the each of the 10 children of the experimental group have gained heights more or less in variation during the six months of intervention of Pranayam.

In respect of weight the effect of pranayam was also perceived on the children of the Experimental group. Each of the 9 children gained weights during the course of pranayam but one child who was an obese (47 kg) got reduced to 40 kg.

The impact of Pranayam is very much perceptible on the breath rate of the children of the experimental group. Nine out of ten children in the experimental group experienced slow breath rate due to practice of Pranayam. But only one child who had breathe rate 12 times per minute in the pre-test showed 14 times per minute on the post-test. It indicates that the breath rate that was faster in the beginning of the pranayam gradually got slowered during the practice of Pranayam.

With regard to the effect of Pranayam on the power of general vision it was found that five out of ten students of experimental group whose general vision was not good experienced good vision power.

As regards the effect of Pranayam on the eye-sight defect five out of ten students having more or less eye-sight defect were cured and the children were able to see normally.

In respect of the effect of Pranayam on running nose, three out of ten children in experimental group who were suffering from this problem got cured within a period of six months of practice of Pranayam.

The effect of Pranayam on the skin patches of the children of the experimental group was very much perceptible. Three children out of 10 having some black skin patches got cured.

With regard to the effect of Pranayam on the mouth odour nine out of 10 children in the experimental group who had more or less foul mouth odour in the beginning became normal after six months of the practice of Pranayam.

The impact of Pranayam was perceived on the physical activeness of the children of the experimental group seven out of ten children who were observed inactive became active after six months of the practice of Pranayam.

The impact of the Pranayam was also perceived on the Pathological aspects of the children of the experimental group. The stool, urine and blood D.C. reports of the children show that five out of ten children who had R. worm and H. worm in their stool got cured. Three children having mucus problem in stool also got cured. The presence of veg cells in five children got cured within a period of six months of practice of Pranayam. The Phosphates, Puscells decreased in the urine in pathological test conducted six months after the pre-test. As regards the impact of Pranayam on the Blood D.C. the Eosinophils percentage in the blood D.C got reduced within six months of the practice of Pranayam as shown in the pre-test and post-test results. The Eosinophils percentage of nine out of ten children in the experimental group got reduced within six months of practice of Pranayam as showed by the pre – test and post – test results.

The impact of Pranayam on some exceptional problems / handicaps like speech defect, hearing impairedness, mental retardation was studied with regard to the speech defect the impact of Pranayam was not so much perceived. One out of ten children in the experimental group having the problem of stammering got cured after six months of practice of Pranayam. One student out of 10 having hearing impairedness got gradually cured and could hear well. With regard to the mental retardation no case was found as showed in the pre-test and post-test results.

HOLDING OF BREATH DURING THE CHANTING OF OM.

'Chanting OM' was an item of intervention in the physical health status scale. Nine children were found to chant OM 8 to 13 times in a minute in the pre-test. The same children were found to chant OM 5 to 6 times after an intervention of six months of practising Pranayam in the post-test. One out of the ten children is found to chant 'OM' 4 times in a minute in the Post-Test, who was able to chant 'OM' 6 times per minute at the time of pre-test. The average performance of the children of the Experimental group in the Pre-test 9.9 and in the post-test 5.5 times per minute.

Table – 4.2

4.2. The pre-test and post-test results of the physical health status of upper primary school children in control group.

Table – 4.2 shows the pre-test and post-test results of the physical health status of ten upper primary school children in the control group. It shows height , weight, normal breath rate, general vision, eye-sight, running nose, skin patch, mouth odour, Digestive disorder, physical activeness, On pathological aspects of their health i.e, stool, urine and blood and Exceptional problems/ handicaps i.e. speech defects, hearing impairedness, mental retardation in the pre-test taken on dt- 06/09/2008 and post-test done on dt. 06/03/09.

The table shows that nine out of ten children of the control group have gained heights more or less in variation during the six months but one child's height has remained constant.

In respect of weight it is nutrition which helps growing. Five out of ten children in control group gained weights but three children's weight has remained same. Two children had got reduced weight.

Each of the ten children of the control group experienced a bit slow breathe rate during the six months as showed in the pre-test and post-test results.

In regard to the power of general vision it was found that one out of ten students of control group couldn't see well in low Voltage at the time of pre-test and it was found a bit derogatory in the post test result. Another two out of ten students of control group having good general vision at the time of pre-test were found to have poor vision power at the time of post-test.

With regard to the eye-sight defect, each of the ten children of the control group having no defect at the time of pretest, two out of ten children were feeling slight pain at the time of post-test.

As regards the running nose four out of ten children in the control group who were suffering from this problem at the time of pre-test were having the same problem at the time of post-test.

Two out of ten children in the control group having some black skin patches at the time of pre-test were also found to have the same spots in the time of post-test.

As regards the mouth odour eight out of ten students in the control group who had more or less foul mouth odour at the time of pre-test were found that the problem had ameliorated by degrees at the time of post-test. One out of ten students who didn't have any mouth odour in the pre-test were found to have foul mouth odour at the time of post-test. The reasons are due to their unhygienic ways of living.

With regard to the digestive system seven out of ten children who had expressed to have the problem of acidity at the time of pre-test did not get rid of the problem after six months i.e. at the time of post-test. One out of ten who had expressed his fitness at the time of pre-test was observed to be weak and worn-out due to acidity at the time of post-test.

As regards the physical activeness of the children of the control group four out of the ten students were observed inactive in both the tests. Three out of ten students were found active in the pre-test were appeared in active in the post-test.

The stool, urine and blood D.C. reports of the children in control group show that seven out of ten children were suffering from the problem of having R. worm and H. worm in their stool at the time of pretest and post-test. The presence of veg cells in eight children had ameliorated within a period of six months. At the time of post-test. One children having mucus problem in stool was also found the same presence of E. vermicularies was also observed in many cases.The phosphates, crystals, puscells were found in the urine in the pathological test conducted six months after the pre-test. As regards the blood D.C. the Eosinophils percentage in the blood D.C. had ameliorated within six months as shown in the pre-test and post-test results. The eosinophil percentage of six out of ten children in the control group had increased within six months as showed by the pre-test and post-test results.The exceptional problems / handicaps like speech defect, hearing impairedness and mental retardation of control group were also observed. With regard to the speech defect no one was perceived. One out of ten children in the control group having the problem of hearing impairedness was found in both the tests. The boy was unable to hear low voice. With regard to the mental retardation no case was traced out as showed in both the pre-test and post-test results.

Holding of breath during the chanting of OM

The children of the control group chanted OM 9.4 times in a minute in average at the pre-test. And the same children after six months interval chanted OM 9.2 times per minute in average.

4.3. EFFECT OF PRANAYAM ON ACADEMIC ACHIEVEMENT

The second objective is to study the effect of Pranayam on the academic achievement of upper primary school students.The hypothesis corresponding to the objective is "There is no significant difference in the mean Achievement gain scores of Experimental and control group of upper primary students after intervention of Pranayam. Keeping this hypothesis in mind the data were analysed with the help of 't' test between gain scores of experimental and control group in Achievement Test score (A.T). The results are given in the table No. 5.1

Table No.: 5.1.

't' test on Achievement Test (A.T) gain scores between Experimental and control groups.

Groups	**Means gain scores**	**S.D.**	**N**	**'t' Value**	**Result**
Experimental	21.33	5.1	30	15.12	Significant at 0.01 level
Control	5.3	2.82	30		

$Df = N_1 + N_2 - 2 = 30 + 30 - 2 = 58$

The data available from the above table reveals that the mean gain score of experimental group children (21.33) is higher than that of control group children (5.3) that shows that the achievement of the former is higher than that of the latter. This difference is statistically significant as the obtained 't' value 15.12 is higher than 2.66 at 0.01 level of significance. Therefore, the Null hypothesis that 'There is no significant difference in the mean achievement gain scores of experimental and control groups after intervention of Pranayam' is not supported, hence rejected. Further the mean gain score of Achievement Test (AT) of both the groups show that the practice of Pranayam has significantly positive effect on the academic achievement of upper primary students.

Discussion: The results revealed the effect of Pranayam on academic achievement of upper primary school students. Pranayam was practised for six months by the children of the experimental group and no treatment was given to the control group. The same Achievement Test was administered on both the groups. The results indicated the significant difference in the mean gain scores between experimental and control group. The mean gain scores of experimental group was higher than that of control groups. It indicates that the practice of Pranayam develops various mental faculties like memory, thinking, reasoning, understanding, judgment, imagination etc. So that the students gained better performance in their academic pursuits.

4.4. Effect of Pranayam on the development of Study – Habits

To determine the effect of Pranayam on the development of the study-habits of upper primary students is the third objective of this study.

The hypothesis corresponding to this objective is "There is no significant difference in the mean study-habits. Gain scores of Experimental and control group of upper primary students after the intervention of Pranayam." Keeping this hypothesis in mind the data were analysed with the help of 't' test between mean gain scores of experimental and control groups in the study-habits Test. The results are given in the Table No.:-5.2.

Table No.:-5.2

't' test between mean Study-Habits Gain Scores of Experimental and control groups.

Groups	Means gain scores	S.D.	N	't' Value	Result
Experimental	23.00	4.9	30	11.07	Significant at 0.01 level
Control	7.83	5.7	30		

Df = $N_1 + N_2 - 2 = 30+30 - 2 = 58$

It is revealed from the above table that the mean gain score of study-habits of Experimental group is 23.00 where as that of control group is 7.83. This indicates that the study habits of experimental group children is higher than that of control group children. The difference is also statistically significant as the obtained 't' value 11.07 is much higher than 2.66 at 0.01 level of significance. As such, the Null Hypothesis that 'there is no significant difference in the mean study-habits Gain scores of experimental and control group of upper primary students after the intervention of Pranayam.' is not supported, hence rejected. Further the mean gain score of study habits of both the groups show that the practice of Pranayam has significantly positive effect on the development of study-habits of upper primary school children.

Discussion : The results revealed the effect of Pranayam on the development of study – habit of students.

Pranayam was practised for six months by children of the experimental group only. The same study-habit test was administered on both the groups. The results indicated the significant difference in the mean gain scores of experimental and control groups. The mean gain scores of experimental group was higher than that of control group. It indicates that the practice of Pranayam develops child's interest towards their study. It also develops positive attitude, concentration, better memory power, learning ability etc. so that the children gain better preference in their study-habits test.

4.5. EFFECT OF PRANAYAM ON THE DEVELOPMENT OF SOCIAL MATURITY

The fourth objective of the investigation is to study the effect of Pranayam on the development of Social-Maturity of upper primary students.

The hypothesis corresponding to this objective is "There is no significant difference in the mean social-maturity Gain scores of Experimental and control group of upper primary students after practising Pranayam". Keeping this hypothesis in mind the data were analysed with the help of't' test between mean gain scores of experimental and control groups in the social-maturity test. The results are given in the Table No.:- 5.3

Table No.: - 5.3

't' test between mean Social-Maturity Gain Scores of Experimental and control groups.

Groups	Means gain scores	S.D.	N	't' Value	Result
Experimental	23.70	5.25	30	9.71	Significant at 0.01 level
Control	9.33	6.25	30		

Df = $N_1 + N_2 - 2 = 30+30 - 2 = 58$

The above table reveals that the mean gain score of social-maturity of Experimental group is 23.70 where as that of control group is 9.33. This indicates that the Social-Maturity of experimental group students is higher than that of control group children. The difference is also statistically significant as the obtained 't' value 9.71 is higher than 2.66 at 0.01 level of significance. As such the Null hypothesis that there is no significant difference in the mean social maturity Gain scores of Experimental and control group of upper primary students after

practising Pranayam is not supported, hence rejected. Further the mean gain score of social maturity of both the groups says that the practice of Pranayam has significantly positive effect on the development of social-maturity of upper primary school children.

Discussion The results revealed the effect of Pranayam on Social-Maturity of upper primary school students. Pranayam was practised for six months by the children of the experimental group only. The same Social-Maturity Test was administered on both the groups. The results indicated that there is a significant difference in the mean gain scores between experimental and control group. The mean gain scores of experimental group was higher than that of control groups. It indicates that the practice of Pranayam develops various social qualities like universal brotherhood, respect to others, rational judgment, thinking, reasoning, understanding, imagination, sympathy, empathy, helping others, protecting the rights of others, taking right decisions in right time etc. so that the students gain better performance in their Social-Maturity Test.

EFFECT OF PRANAYAM ON THE DEVELOPMENT OF SELF-DISCIPLINE

The fifth objective of this investigation is to study the effect of Pranayam on the development of self-discipline of upper primary students.

The hypothesis corresponding to this objective is "There is no significant difference in the mean self-discipline Gain scores of Experimental and control group of upper primary students after practising Pranayam". Keeping this hypothesis in mind the data were analysed with the help of't' test between Gain scores of experimental and control group in self-discipline Test scores. The results are given in the table No.: 5.4

Table No.:- 5.4 't' test on Self-Discipline Test Gain Scores between Experimental and control groups.

Groups	**Means gain scores**	**S.D.**	**N**	**'t' Value**	**Result**
Experimental	24.67	4.65	30	10.32	Significant at 0.01 level
Control	9.50	6.60	30		

$Df = N_1 + N_2 - 2 = 30+30 - 2 = 58$

It is revealed from the above table that the mean gain score of Experimental group children is 24.67 where as that of control group children is 9.50 only. This indicates that the self-discipline of Experimental group children is higher than that of control group children. The difference is also statistically significant as the obtained 't' value 10.32 is much higher than 2.66 at 0.01 level of significance. As such, the Null Hypothesis that "There is no significant difference in the mean self-discipline Gain scores of Experimental and control group of upper primary students after practising Pranayam" is not supported, hence rejected. Further the mean gain scores of self-discipline of both the groups show that the practice of Pranayam has significantly positive effect on the development of self-discipline of upper primary school children.

Discussion The results revealed the effect of Pranayam on the development of self-discipline of upper primary students. Pranayam was practised for six months by the children of the experimental group and no practice was undertaken by the control group. The same self-discipline test was administered on both the groups. The results indicated the significant difference in the mean gain scores between experimental and control group. The mean gain scores of experimental group was higher than that of control groups**.** It indicates that the practice of Pranayam develops the values of discipline in personal life of the child self-help activities, discipline in doing daily obligatory activities, punctuality, sincerity socialization, obedience, respect towards elders, sympathy and empathy, aesthetic sense and believe in God; so that the children gained better performance in their self-discipline test.

4.6. EFFECT OF PRANAYAM IN THE ACHIEVEMENT OF HIGH AND LOW INTELLIGENT UPPER PRIMARY STUDENTS

To determine the effect of Pranayam on the academic achievement of upper primary students having high and low intelligence, is the sixth objective of this study.The hypothesis corresponding to this objective is "There is no significant difference in the mean, Achievement scores of high and low intelligent students of Experimental group on post-test." Keeping this hypothesis in mind the data were analysed with the help of 't' test between mean scores of high intelligent and low intelligent groups in the Achievement test. The results are given in the Table No. – 5.5 **Table No.:- 5.5** 't' test between mean Achievement test scores of high and low intelligent students of Experimental group.

Groups	Mean	S.D.	N	't' Value	Result
High intelligent	79.5	14.2	16	2.18	Significant at 0.05 level
Low intelligent	68.07	14.4	14		

Df = $N_1 + N_2 – 2 = 16 + 14 – 2 = 28$

The above table reveals that the mean achievement score obtained by the children of the high intelligent students of Experimental group (79.5) is higher than that of students of low intelligent group (68.07). This states that the academic achievement of students belonging to high intelligent group is higher than that of low intelligent group. The difference is also statistically significant as the obtained 't' value 2.18 is higher than 2.05 at 0.05 level. Hence the Null Hypothesis that there is no significant difference in the Achievement scores of high and low intelligent students of experimental group on post test is not supported, but rejected. If reveals /means that the Pranayam has significant positive effect on the achievement of both the low and high intelligent students of Experimental group.

Discussion: The results revealed the effect of Pranayam on Achievement of high and low intelligent students of upper primary school. Children in Experimental group are classified into two groups according to their intelligence i.e. high intelligent group and low intelligent group. The same achievement test was administered on both the groups after practising Pranayam for six months. The results indicated the significant difference in the mean scores between high and low intelligent groups. The mean score of high intelligent group was higher than that of the low intelligent group. It indicates that the practice of Pranayam develops various mental faculties, so that the students having different intelligent power gain better performance in their academic pursuits.

EFFECT OF PRANAYAM IN THE DEVELOPMENT OF STUDY-HABITS OF HIGH AND LOW INTELLIGENT UPPER PRIMARY STUDENTS

To determine the effect of Pranayam in the study-habit of upper primary students considering intelligence is the seventh objective of this investigation.

The hypothesis corresponding to this objective is stated that "There in no significant difference in the mean study-habit scores of high and low intelligent students of Experimental group." Keeping this in mind the post test Study-Habits score of experimental group were taken into consideration. The data were analysed with the help of 't' test between high and low intelligent groups' mean study-habits Inventory scores. The results were given in table No.:-5.6.

Table No.:- 5.6't' test between the mean Study-Habits Inventory scores of high and low intelligent students of Experimental group.

Groups	Mean	S.D.	N	't' Value	Result
High intelligent	195.70	24.80	16	1.55	Not Significant
Low intelligent	183.70	17.20	14		

Df = $N_1 + N_2 – 2 = 16 + 14 – 2 = 28$

From the above table it is understood that the Study-Habits mean score of high intelligent group children (195.7) is a little higher than the mean score of low intelligent group children (183.7). But statistically this difference is not significant as the 't' value 1.55 is less than 2.76 at 0.01 level or 2.05 at 0.05 level of significance. The rate of effect of Pranayam in the development of Study-Habits is almost the same in case of these two categories of children. As such, the Null Hypothesis that there is no significant difference in the mean study-habit scores of high and low intelligent students of Experimental group is retained. So it was concluded that study-habit mean scores of high and low intelligent group children do not differ significantly.

Discussion: The result indicated that both high-intelligent and low intelligent children of experimental group are equally developed in their study-habits. High intelligent group children showed better results after practising Pranayam for six months as well as low-intelligent group children.

EFFECT OF PRANAYAM IN THE DEVELOPMENT OF SOCIAL MATURITY OF HIGH AND LOW INTELLIGENT UPPER PRIMARY STUDENTS.

The Eighth objective of this investigation is to study the effect of Pranayam in the development of Social Maturity of high and low intelligent upper primary students. The hypothesis of this objective stated that "There is no significant difference in the mean scores of Social Maturity of high and low intelligent students of Experimental group. Keeping this in mind the data were analysed with the help of 't' test between high and low intelligent groups mean Social-Maturity test scores. The results were given in Table No.: 5.7

Table No.: - 5.7 't' test between the mean Social-Maturity test scores of high and low intelligent students of Experimental group.

Groups	Mean	S.D.	N	't' Value	Result
High intelligent	177.00	14.70	16	0.82	Not Significant
Low intelligent	173.07	11.50	14		

$Df = N_1 + N_2 - 2 = 16 + 14 - 2 = 28$

The above table shows that the mean score of high intelligent group children (177.00) is higher than that of low intelligent group children (173.07). But statistically this difference is not significant as the 't' value 0.82 is less than 2.76 at 0.01 level or 2.05 at 0.05 level. The rate of development of Social-Maturity is almost the same incase of these two categories of children. As such, the Null Hypothesis that there is no significant difference in the mean Social-Maturity of high and low intelligent students of Experimental group is retained. So it was concluded that effect of Pranayam on the development of Social-Maturity of high and low-intelligent students of experimental group do not differ significantly from each other.

Discussion: Pranayam didn't have any differential effect on the development of Social-Maturity of high and low intelligent children of Experimental group. It means Pranayam is equally effective in term of the development of Social-Maturity of both the groups.

EFFECT OF PRANAYAM IN THE DEVELOPMENT OF SELF-DISCIPLINE OF HIGH AND LOW INTELLIGENT UPPER PRIMARY STUDENTS.

To determine the effect of Pranayam in the development of Self-Discipline of high and low intelligent upper primary students is the Ninth objective of this study.

The hypothesis corresponding to this objective is "There is no significant difference in the mean Self-Discipline test Scores of high and low intelligent students of Experimental group." Keeping this hypothesis in mind the data were analysed with the help of 't' test between high and low intelligent groups mean self-Discipline test Scores. The results were given in table No.-5.8

Table No – 5.8 't' test between the mean Self-Discipline test scores of high and low intelligent students of Experimental group.

Groups	Mean	S.D.	N	't' Value	Result
High intelligent	294.50	20.60	16	1.78	Not Significant
Low intelligent	280.93	21.00	14		

$df = N_1 + N_2 - 2 = 16 + 14 - 2 = 28$

The figures in the above table give the picture of development of self-discipline of high and low intelligent children in Experimental group. The mean self-discipline score of the high-intelligent group is higher than the mean self discipline Score of low intelligent group. This indicates that the rate of development of self-discipline of high-intelligent group is higher than that of low-intelligent group. But the difference is not statistically significant as the 't' value 1.78 is less than 2.76 at 0.01 level or 2.05 at 0.05 level of significance. The rate of effect of Pranayam in the development of self-discipline is almost the same in case of these two categories of children. As such, the Null Hypothesis that there is no significant difference in the mean self-discipline scores of high and low intelligent students of Experimental group is retained. So it is concluded that self-discipline mean scores of high and low intelligent group children don't differ significantly.

Discussion: The result indicated that both high intelligent and low-intelligent children of Experimental group are equally developed in their self-discipline test scores. High and low intelligent group children showed better self-discipline after practising Pranayam for six months. Thus, practice of Pranayam accelerates the development of intelligence.

RELATIONSHIP BETWEEN INTELLIGENCE AND ACHIEVEMENT

CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To study the correlation between intelligence and achievement after practising Pranayam is tenth objective of the present study. It was hypothesised "There is no significant correlation between the obtained Intelligence and Achievement test scores after practising Pranayam". Keeping this in mind the data were analysed with the help of product moment coefficient of correlation between Intelligence and Achievement Test scores. The formula of Product moment coefficient of correlation is given below:

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

X = Intelligence Test Scores. Y = Achievement Test Scores.

The results are given in the Table 6.1

Table 6.1

Correlation between Intelligence and Achievement Test scores.

$\Sigma X = 982$	$\Sigma X^2 = 34026$	$N = 30$	$r = 0.45$
$\Sigma Y = 1604$	$\Sigma Y^2 = 91642$	$\Sigma XY = 54006$	

Result : Correlation between Intelligence and Achievement Test Score is 0.45.

Interpretation:

From the table 6.1 it was found that the 'r' value 0.45 is significant at 0.05 levels since the calculated value is more than 0.36. It means that the correlation between intelligence and achievement test score is positive and significant. So it is concluded that there exists a positive and significant relationship between intelligence and achievement consequent upon practising of Pranayam by the students.

Discussion: After practice of Pranayam by the school children it is found that the students develop both in intelligence and academic achievement. The students having high intelligence achieve better. Hence the findings is justified that there is a correlation between intelligence and academic achievement.

4.13 RELATIONSHIP BETWEEN INTELLIGENCE AND STUDY – HABITS CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To study the relationship between intelligence and study habits after practising pranayam is the eleventh objective of the present study. It was hypothesised," There is no significant correlation between the obtained Intelligence and study-Habits Test scores after practising pranayam". Keeping this in mind the data were analysed with the help of Product Moment coefficient of correlation between Intelligence and study habits test scores. The formula of product moment coefficient of correlation is given below:

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

X = Intelligence Test Scores.

Y = Study – Habits Test Scores.

The results are given in the Table 6.2

Table 6.2 Correlation between Intelligence and Study-Habits

$\Sigma X = 982$	$\Sigma X^2 = 34026$	$N = 30$	$r = 0.26$
$\Sigma Y = 5134$	$\Sigma Y^2 = 891742$	$\Sigma XY = 169356$	

Result: Correlation between Intelligence and Study-Habits, Test Score is 0.26.

Interpretation: From the table 6.2 it was found that the 'r' value 0.26 is stastitically not significant because the calculated value is less than the significant value 0.36 at 0.05 level or 0.46 at 0.01 level. Therefore, the Null Hypothesis "There is no significant correlation between the obtained Intelligence and study habits test scores after practising pranayam" is retained. So it is conducted that there is no positive and significant relationship between intelligence and study-habits consequent upon practising of pranayam by the students.

Discussion: As found out in the study there is no significant correlation between intelligence and study-habits but there exists a low-correlation between them which is not significant at both the levels. It means that the study-habits are independent of the intelligence. Good study habit is a matter of self discipline of students and discipline enforced by the parents/guardians. Hence it has a low correlationship with the intelligence.

RELATIONSHIP BETWEEN INTELLIGENCE AND SOCIAL-MATURITY CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To study the relationship between intelligence and social-maturity after practising Pranayam is the twelfth objective of the present study. The hypothesis corresponding to this objective was "There is no significant correlation between the obtained intelligence and social-maturity test scores after practising pranayam". Keeping this in mind the data were analysed with the help of Product moment coefficient of correlation between intelligence and social-maturity test scores. The formula of product moment coefficient of correlation is given below:

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

X = Intelligence Test Scores.

Y = Social-Maturity Test Scores.

The results are given in the Table 6.3

Table 6.3

Correlation between Intelligence and Social-Maturity Test-Scores.

$\Sigma X = 982$	$\Sigma X^2 = 34026$	N = 30	r = 0.096
$\Sigma Y = 4629$	$\Sigma Y^2 = 720911$	$\Sigma XY = 151864$	

Result : Correlation between Intelligence and Social-Maturity Test Score is 0.096.

Interpretation: From the table 6.3 it was indicated that the 'r' value 0.096 is not at all significant at all the significant at 0.01 level and 0.05 level. Because the calculated value is less than the significant value 0.46 at 0.01 level 0.36 at 0.05 level. It means there is no correlation between intelligence and social-maturity test scores. Therefore, the Null Hypothesis that there is no significant correlation between the obtained intelligence and social-maturity test scores after practising pranayam" is accepted here.

Discussion: As found out in the study statistically there exists a very low-correlation between intelligence and social-maturity which is not significant at both the levels. It means that the social-maturity traits are independent of the intelligence. Social maturity is a matter of social-interaction, family relation, participation in different social activities and the influence of others within the society. It has no relationship with the intelligence.

RELATIONSHIP BETWEEN INTELLIGENCE AND SELF DISCIPLINE

CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To study the relationship between intelligence and self-discipline after practising Pranayam is the thirteenth objective of the present study. It was hypothesised "There is no significant correlation between the obtained intelligence and self-discipline test scores after practising pranayam". Keeping this in mind the data were analysed with the help of Product Moment coefficient of correlation between intelligence and self-discipline test scores. The formula of product moment coefficient of correlation is given below:

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

X = Intelligence Test Scores.

Y = Self-Discipline Test Scores.

The results are given in the Table 6.4

Table 6.4 Correlation between Intelligence and Self-discipline

$\Sigma X = 982$	$\Sigma X^2 = 34026$	N = 30	r = 0.239
$\Sigma Y = 8003$	$\Sigma Y^2 = 2153651$	$\Sigma XY = 263389$	

Result : Correlation between Intelligence and Self-Discipline Test Scores is 0.239.

Interpretation: From the table 6.4 it was found that the 'r' value 0.239 is not significant at 0.05 level and at 0.01 level since the calculated value is less then 0.361 and 0.463 respectively. It means that the correlation between Intelligence and self-discipline test score is low and not significant. So the Null Hypothesis "There is no significant correlation between the obtained Intelligence and self-discipline test scores after practising pranayam" is retained.

Discussion: There is a low correlation between the obtained scores of Intelligence and self-discipline Test after practising pranayam, which is statistically not significant. It means that self-discipline qualities are independent of intelligence. Self-discipline is a matter of proper guidance and guidance enforced by the parents/guardians. It is also a matter of following ideals/values. It has no relationship with the intelligence.

RELATIONSHIP BETWEEN ACHIEVEMENT AND STUDY-HABITS

CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To find out the correlation between achievement and study-habits is the 14th objective. It was hypothesised "There is no significant correlation between the obtained Achievement and Study-habits test scores after practising Pranayam." Keeping this in mind the data were analysed with the help of Product Moment Coefficient of correlation between Achievement and Study-Habits test scores. The formula of Product Moment Coefficient of correlation is given below.

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

x = Achievement Test Scores.

Y = Study Habits Test Scores.

The results are given in the Table. 6.5

Table 6.5

Correlation between Achievement and Study habits Test Scores.

$\Sigma X = 1604$	$\Sigma X^2 = 91642$	$N = 30$	$r = 0.503$
$\Sigma Y = 5134$	$\Sigma Y^2 = 891742$	$\Sigma XY = 278928$	

Result : Correlation between Achievement and Study Habits Test Score is 0.503.

Interpretation: From the table 6.5 it was found that the 'r' value 0.503 is significant at 0.01 level since the calculated value is more than 0.463. It means that the correlation between Achievement and Study habits test score is positive and significant. So it is concluded that there exists a positive and significant relationship between achievement and study habits consequent upon practising of Pranayam by the students.

Discussion: After practice of Pranayam by the school children it is found that the students develop both in achievement and Study habit and also there is a correlation between achievement and study- habits. Those students who have good academic achievement, developed better study habits and vice versa.

RELATIONSHIP BETWEEN ACHIEVEMENT AND SOCIAL MATURITY

CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To determine the relationship between achievement and social maturity after practising Pranayam is the fifteenth objective. It was hypothesised "There is no significant correlation between the obtained Achievement and Social Maturity Test scores after practising pranayam". Keeping this in mind the data were analysed with the help of product Moment coefficient of correlation between achievement and social maturity test scores. The formula of product Moment coefficient of correlation is given below:

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

X = Achievement Test Scores. Y = social Maturity Test Scores.

The results are given in the Table 6.6

Table 6.6 Correlation between achievement and social maturity test scores.

$\Sigma X = 1604$	$\Sigma X^2 = 91642$	N = 30	r= 0.432
$\Sigma Y = 4630$	$\Sigma Y^2 = 721208$	$\Sigma XY = 250257$	

Result : Correlation between achievement and social maturity Test Score is 0.432.

Interpretation: From the table 6.6 it was found that the 'r' value 0.432 is significant at 0.05 level since the calculated value is more than 0.361. It means that the correlation between Achievement and Social Maturity Test Score is positive and significant. So it is concluded that thre exists a positive and significant relationship between achievement and Social maturity consequent upon practising of Pranayam by the students.

Discussion: After practice of Pranayam by the school children it is found that the students develop both in academic achievement and social maturity and also there is a correlation between academic achievement & social maturity. Socially matured students achieve better.

RELATIONSHIP BETWEEN ACHIEVEMENT AND SELF-DISCIPLINE CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To determine the relationship between achievement and self-discipline after practising Pranayam is the sixteenth objective of the present study. It was hypothesised "There is no significant correlation between the obtained Achievement and self-discipline Test scores after practising pranayam". Keeping this in mind the data were analysed with the help of product Moment coefficient of correlation between Achievement and self-discipline test scores. The formula of product Moment coefficient of correlation is given below:

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

X = Achievement Test Scores. Y = Self-discipline Test Scores.

The results are given in the Table 6.7

Table 6.7

Correlation between Achievement and Self-Discipline Test Scores.

$\Sigma X = 1604$	$\Sigma X^2 = 91642$	N = 30	r = 0.565
$\Sigma Y = 8002$	$\Sigma Y^2 = 2153046$	$\Sigma XY = 433762$	

Result : Correlation between Achievement and Self-Discipline Test Score is 0.565.

Interpretation: From the table 6.7 it was found that the 'r' value 0.56 is significant at 0.01 levels since the calculated value is more then 0.46. It means that the correlation between Achievement and self-discipline test score is positive and significant. So the null hypothesis there is no significant correlation between the obtained achievement and self-discipline test scores consequent upon practising of Pranayam is rejected.

Discussion: Correlation between achievement and self-discipline is high because the more a child is disciplined the better academic achievement she/he has and vice versa. Due to development of self-discipline there is a conductive growth of the mental faculties of a child and hence s/he achieves better.

RELATIONSHIP BETWEEN STUDY-HABITS AND SOCIAL-MATURITY CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To find out the correlation between study-habit and social-maturity is the seventeenth objective of this study. It was hypothesised "There is no significant correlation between the obtained study-habits and social-maturity test scores after practising pranayam". Keeping this in mind the data were analysed with the help of product Moment coefficient of correlation between study-habit and social-maturity test scores. The formula of product moment coefficient of correlation is given below:

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

X = Study-Habits Test Scores. Y = Social-Maturity Test Scores.

The results are given in the Table 6.8

Table 6.8 Correlation between study-habits and social-maturity Test Scores.

$\Sigma X = 5134$	$\Sigma X^2 = 891742$	$N = 30$	$r = 0.535$
$\Sigma Y = 4630$	$\Sigma Y^2 = 721208$	$\Sigma XY = 797349$	

Result : Correlation between study-habits and social-maturity test score is 0.535.

Interpretation: From the table 4.8 it is found that the 'r' value 0.53 is significant at 0.01 level since the calculated value is more then 0.46. It means that the correlation between study-habits and social-maturity test score is positive and significant. So the null hypothesis "There is no significant correlation between the obtained study-habits and Social-Maturity test scores after practising Pranayam is rejected.

Discussion: Study-habits is highly correlated with social-maturity. After practice of Pranayam by the school children it is found that the students develop both in study-habits and social-maturity. The more socially matured students have better study-habits. Hence the findings are justified that there is a positive and significant correlation between study-habits and social-maturity and vice versa.

RELATIONSHIP BETWEEN SOCIAL-MATURITY AND SELF-DISCIPLINE CONSEQUENT UPON THE INTERVENTION OF PRANAYAM

To know the relationship between social-maturity and self-discipline after practising Pranayam is the eighteenth objective of this study. It was hypothesised "There is no significant correlation between the obtained social-maturity and self-discipline test scores after practising pranayam." Keeping this in mind the data were analysed with the help of product Moment coefficient of correlation between social-maturity and self-discipline test scores. The formula of product moment coefficient of correlation is given below:

$$r = \frac{N.\Sigma XY - \Sigma X.\Sigma Y}{\sqrt{[N.\Sigma X^2 - (\Sigma X)^2] \,.\, [N.\Sigma Y^2 - (\Sigma Y)^2]}}$$

X = Social-Maturity Test Scores. Y = Self-Discipline Test Scores.

The results are given in the Table 6.9

Table 6.9 Correlation between Social-maturity and Self-discipline Test Scores.

$\Sigma X = 4630$	$\Sigma X^2 = 721208$	$N = 30$	$r = 0.502$
$\Sigma Y = 7782$	$\Sigma Y^2 = 209452$	$\Sigma XY = 1212298$	

Result : Correlation between social-maturity and self-discipline test score is 0.502.

Interpretation: From the table 6.9 it was found that the 'r' value 0.502 is significant at 0.01 level since the calculated value is more then 0.463. It means that the correlation between social-maturity and self-discipline test score is positive and significant. So the null hypothesis 'There is no significant correlation between the obtained social-maturity and self-discipline test scores after practising pranayam is rejected.

Discussion: The correlation between social-maturity and self-discipline test scores is high and positive. After practice of pranayam by the school children it is found that the students develop both in social-maturity and self-discipline. The socially well matured students are also self-disciplined. Hence the findings are justified that there is a positive and significant correlation between social-maturity and self-discipline and vice versa. A child who is disciplined is much developed in social, moral, psychological and spiritual values. S/he has better control & influence on others. Hence self-disciplined child is socially matured.

SUMMARY OF FINDINGS: The following findings emerged from the present investigation.

1. Pranayam has an impact on physical health status of upper primary children. It certainly improves their physical health.
2. Pranayam has significant effect on the academic achievement of upper primary children.
3. Pranayam has significant effect on the development of study habits of upper primary children.
4. Pranayam has significant effect on the development of social-maturity of upper primary children.
5. Pranayam has significant effect on the development of self-discipline of upper primary children.
6. Pranayam has significant effect on the achievement of high and low intelligent upper primary children.
7. Pranayam has significant effect on the development of study-habits of high and low intelligent upper primary children.
8. Pranayam has significant effect on the development of social-maturity of high and low intelligent upper primary children.
9. Pranayam has significant effect on the development of self-discipline of upper primary children.
10. There is positive and significant relationship between intelligence and academic achievement consequent upon practising Pranayam.
11. The relationship between intelligence and study-habits is low consequent upon practising Pranayam.
12. There is very low /negligible relationship between intelligence and social-maturity consequent upon practising Pranayam.
13. There is a low relationship between intelligence and self-discipline consequent upon practising Pranayam.
14. There is a positive and significant relationship between academic achievement and study-habits consequent upon practising Pranayam.
15. There is a positive and significant relationship between academic achievement and social-maturity consequent upon practising Pranayam.
16. There is a significant and positive relationship between academic achievement and self-discipline consequent upon practising Pranayam.
17. There is a significant and positive relationship between study-habits and social-maturity consequent upon the intervention of Pranayam.
18. There is a significant and positive relationship between social-maturity and self-discipline consequent upon the intervention of Pranayam.

CONCLUSION

Thus Pranayam has a positive impact on the physical health status of school children. It improves their academic performance. It develops their social maturity. It creates interest for study and develops study-habits in them. Moreover it develops self-discipline i.e. self-help, social, moral, aesthetic and spiritual aspects of their personality. Hence, Pranayam rejuvenates the children's body and mind and electrifies / elevates the spirit of the children.

RECOMMENDATION

It is high time for the country to revamp the curriculum for the school education. Pranayam should be an integral part of the school education programme both primary and secondary.

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