

Physicochemical Properties of Tuber Starch of *Ariopsis Peltata* Nimmo

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Abstract :

The present paper deals with microscopically and physicochemical properties of starch isolated from tubers of *Ariopsis peltata* of family Araceae and compared it with starch isolated from *Solanum tuberosum*.

The tuber of *Ariopsis peltata* has 38% starch on dry weight basis. The starch bound proteins and lipids are higher in *A. peltata* as compared to *Solanum tuberosum* starch. Starch grains are smaller with prominent central hilum and indistinct striations, while in *Solanum tuberosum* the starch grains are large and mostly eccentric with prominent striations. The viscosity in B.U. is lesser in starch of *A. peltata* as compared to *Solanum tuberosum*. Gelatinization temperature is similar in both species.

Introduction:

Ariopsis peltata a small tuberous, monsoon perennial plant with peltate leaves, member of Araceae.(plate-1-a). It is widely distributed in Indian plains, western ghats and from Nepal to Sikkim.(Cooke 1903,Gamble 1957). In Maharashtra it is reported from Ambavane, Yhane, Karellhind, Neral, Matheran, Raigad, Khed, Ratnagiri, Amboli , Savantwadi, Sindhudurga, Lonavala, Bhimashankar, Junnar, Pune, Shivneri hills and Osmanabad (Botanical survey of India-herbarium.Pune, Marathawada University Herbarium. Aurangabad.) Since physicochemical properties of starch of *Ariopsis peltata* have remained uninvestigated. These are described in present communication and compared with starch properties of potato.

Material and Methods:

Fresh tubers of *Ariopsis peltata* collected from Ghodbandar (Thane) were employed for investigation. Starch percentage, starch bound protein, phosphorous, starch bound lipids, amylase percentage were determined according to procedure suggested by Hoffpauir (1949), Johnson (1941). Umbreit et al. (1972), Knight (1965), and Mc-cready and Hassid (1941) respectively. Procedure of Brautlecht (1953) and Pamitt et. al.(1941) were followed for determination of pH and retrogradation; Methods of Kerr (1950) were employed for determination of syneresis, viscosity and solubility at room temperature. Methods given by Whistler (1964) were followed for determination of all other properties.

Observation and Discussion:

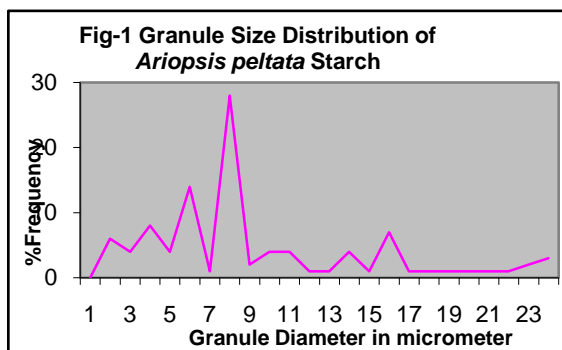
The physicochemical properties of starch of *Ariopsis peltata* have been tabulated in Table-1. The tubers are whitish-brown, ovoid, 2-10 cm. in diameter (plate 1-b) and 1.2 to 1.5 gms average weight, and obtained 32% of starch on dry weight basis. The starch mostly simple, few compound, exhibits variable shapes, like powdered, triangular, trigonal, quadrangular, most with indentation marks on surface, Hilum is distinct.(Fig-2).

The isolated starch contain total ash- 0.56%, acid insoluble ash-0.23%, acid soluble ash-0.33%, solubility 0.45%, Moisture 11.29%, lipid-0.4%. The granule size varies from 4 μ m-48 μ m. mostly 12 μ m to 16 μ m (Fig-1) number of starch grains is 84,000 per mg of starch.

Starch percentage on dry weight basis of *Ariopsis peltata* is lesser than that of potato starch bound lipid percentage, solubility at room temperature, syneresis, Retrogradation at different temperature is higher than that of potato starch phosphorus, amylose, gelatinisation temperature than that of potato starch. Size of the starch grains is smaller so the number of starch grain per milligram is higher as compared to potato starch.

Table 1: Comparative account of Physico-chemical Properties of starch isolated from *Ariopsis peltata* and *Potato starch* with market sample.

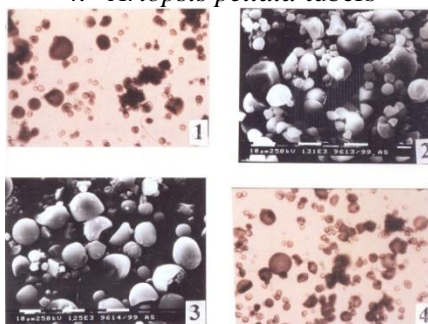
No.	Properties	<i>Ariopsis peltata</i>	<i>Potato starch</i>	
1	Morphology	No./mg of starch	84,000	75,000
		Size (μm)	4-48	50-100
		Shape	Variable	Variable
		Type	Mostly Simple, few compound	Mostly Simple, few compound
		Hilum	Central	Central
		Striation	Indistinct	Indistinct
2	% Starch Yield (dry weight basis)	38	75	
3	Ash	Total	0.56	0.22
		Acid insoluble	0.33	0.04
		Acid soluble	0.23	0.18
4	Moisture	11.29	19	
5	PH	6.8	6.5	
6	Lipid %	0.4	0.05	
7	Protein %	0.55	0.06	
8	Amylose %	18	21	
9	Amylose to amylopectin ratio	63	37	
10	Solubility at RT	0.45	0.34	
11	Syneresis/gm	2.5	0.986	
12	Gelatinization Temp	58-60	56-60	
13	Pasting Temp.	60-66	66	
14	Viscosity in cps at RT	1.16 cps	1.672 cps	
15	Retrogradation at	7 ⁰ C	89.2	86.2
		37 ⁰ C	85.7	83.00
		63 ⁰ C	81.3	79.3
16	Viscosity in Brabender Unit	At 95 ⁰ C	180 B.U.	855 B.U.
		After 15 min. at 95 ⁰ C	260 B.U.	855 B.U.
		After cooling for 15 min.	320 B.U.	855 B.U.



1 and 2 - *Ariopsis peltata* grown in rocky crevices.

2 and 4 - *Ariopsis peltata* plant with flower

4. - *Ariopsis peltata* tubers



1 and 2 - *Ariopsis peltata* starch grains

3 and 4 - *Solanum tuberosum* starch grains

Acknowledgement:

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A Comparative Study of Anxiety Levels between Cricket, Volleyball and Basketball Players among Junior College Boys

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Introduction :

Psychology is the science of human behaviour or the study of the complex forms of human behaviour, including its integration, organization and manifestation. First psychology lost its soul. Then it lost its mind. Then psychology lost its consciousness. Psychology still has behaviour of a sort. In psychology the term 'behaviour' is used in a very wide and comprehensive sense. Behaviour implies every activity performed by man. Hence playing, walking, talking, reading, writing, abusing, eating, weeping etceteras are different types of behaviour. A man is busy with some activity every moment and only death can put an end to his activity. Psychology is also concerned with understanding and even predicting the sports performances. Hence in the part of psychology, sports really mirror the value of culture and aggressive behaviour. Sports psychology also deals with different areas of psychological level of an individual, and his performance in the field of sports. All the top players in sports should utilize their maximum physical ability like speed, stamina and strength to their fullest. In short, sports psychology plays a very important role in the field of any sport.

Anxiety can enhance or inhibit sports performance. Whether the effect is positive or negative depends on whether the level of sports anxiety is high or low. However, the intensity of sports anxiety differs from game to game. This piece of research was undertaken with enormous enthusiasm to investigate the anxiety level of inter-college boy's cricket, volleyball and basketball players. The objectives of the present investigation were as follows:

- To develop the norms to measure the levels of anxiety of selected sports persons.
- To evaluate the status of sports anxiety of the selected players participating in cricket, volleyball and basketball.
- To compare the status of anxiety levels of the above players before the game, during the game and after the game.

The present investigator, keeping these objectives in mind, hypothesized that -

HO1: There would be no significant difference in the levels of anxiety between cricket players, volleyball players and basketball players.

HO2: There would be no significant difference in the levels of anxiety between before the game, during the game and after the game situations.

Method

Procedures

In this investigation, the researcher included the players of three team games (viz., cricket, volleyball and basketball) and their four anxiety levels (viz., habitual anxiety, before the game anxiety, during the game anxiety, and after the game anxiety respectively) were tested. Thus the design of this study has been considered under 3 x 4 FACTORIAL DESIGN.

Subjects

The researcher has undertaken ninety (N=90) Jr. College boys who represented their College in the inter-Collegiate tournament in cricket, volleyball and basketball. The players ranged from 16 to 18 years in age. Thirty subjects were included in each game. The investigator selected only the male players from various Colleges in Mumbai city as subjects.

Data Analysis

The raw data was processed for descriptive statistics. Based on this and looking at the design of the study, 3 x 4 Factorial ANOVA was applied for statistical analysis. The statistical significance was determined by using Newman-Kules Post Hoc Technique. In this study the data taken on try-out basis (n=30) revealed that the split-half reliability ($r_{tt} = 0.78$) was statistically significant at the 0.01 level ($p < 0.01$). This coefficient of reliability in turn suggests that the Spielberger's questionnaire of sports anxiety used here with was completely reliable for the Indian college students who have participated in this present investigation.

Table 1
Level of Sports Anxiety of the selected Players in different situations

Anxiety in Different situations					
Games group		Habitual Level	Before Match	During Match	After Match
Volleyball	M	71.36	29.66	13.89	25.07
	SD	(15.30)	(9.82)	(3.05)	(9.62)
Basketball	M	74.81	27.96	14.10	25.26
	SD	(20.20)	(9.75)	(3.84)	(9.98)
Cricket	M	72.40	25.96	14.83	25.26
	SD	(15.32)	(7.53)	(4.02)	(9.23)

The data collected in this investigation was processed through the above stated norms of the questionnaire. The normative data were then processed for descriptive statistics and the results were presented in Table 1. In Table 1 the anxiety score (habitual level) of basketball players was 74.81 which was superior to the cricket as well as volleyball players; however the anxiety levels before, during and after the match situation were more or less similar. More specifically, before the match situation the anxiety level of volleyball, basketball and cricket players were 29.66, 27.96 and 25.96 respectively. The results in this table also indicate that the levels of anxiety during the match situation for volleyball, basketball and cricket players were 13.89, 14.10, and 14.83 respectively. Like-wise the anxiety levels of after match situation were recorded as 25.07, 25.26 and 24.63 against volleyball players, basketball players and cricket players respectively.

Results

The analysis and interpretation of data indicate the following results:

- Selected players, in general, are the moderately high anxiety group. But the basketball players belonged to a higher anxiety group (habitual anxiety level) as compared to cricket and volleyball groups.
- In the 'before the game' situation, the players belonging to basketball, volleyball and cricket showed moderately low anxiety levels. However, 'before the game' anxiety level was significantly higher in volleyball players as compared to basketball and cricket players.
- In the 'During the game' situation, all the selected players showed low level of anxiety.

- In the 'after the game' situation, all the players participated in this study showed moderately low anxiety level.

The above interpretation in turn suggests that the level of anxiety of Volleyball, Basketball and Cricket players differs from each other. Therefore the null hypothesis - HO₁ has been refuted.

- Different anxiety levels were evident in different situations:
 - *Habitual anxiety level was found significantly higher in comparison with the before the game, during the game and after the game situations.*
 - *Before the game anxiety level was significantly higher than during the game anxiety level.*
 - *After the game anxiety level was significantly higher than during the game anxiety level.*
 - *There was no statistically significant difference between the before the game and after the game anxiety levels.*

The above interpretation in turn suggests that the level of anxiety of before the game, during the game and after the game situations differs from each other. Therefore the null hypothesis - HO₂ has been refuted.

Thus anxiety level varies from player to player playing different games, viz., cricket players, volleyball players and basketball players. Moreover the anxiety levels in different situations viz., before the game, During the game and After the game were also not same. So, the null hypotheses (HO₁ and HO₂), formulated in this present investigation, have been refuted.

Discussion

Research reports reported so far revealed that anxiety is present in all of us, including players in varying degrees. But in the field of sports certain competitive situations naturally induce more anxiety than other normal beings. The result of the present study also agrees that selected college players were moderately high anxiety group. The reason for such moderately high level of anxiety may be depending upon the intensity of their competitive situations. Although in some other cases a high level of anxiety is detrimental, but sometimes certain degree of anxiety may be helpful in tasks that require strength or power. As the subjects of the present study were the participants of competitive college level sports, such arousal of moderately high level of anxiety may be quiet but natural. In fact, such arousal of moderately high anxiety level may have significance in improving their sports performance. This study agreed the assumption that players falling at the extremes of an anxiety scale may not perform well, however, certain amount of anxiety is of course essential for top performance. Perhaps due to similar reasons, the college level players in cricket, volleyball and basketball could show a moderately high level of anxiety as indicated in the present study.

The present study also revealed that in before the game situation, the players belonging to cricket, volleyball and basketball showed moderately low anxiety levels. This result supports the findings of earlier research reports, which agreed that anxiety is present in all of us even among the players. These reports also revealed that competitive situations, requiring strength and power, produce anxiety. In fact, a certain amount of anxiety is needed for peak performance. Perhaps such principles might have resulted in the present study and therefore the level of anxiety in before the game situation of the selected players was moderately low.

The present study also revealed that before the game anxiety level of volleyball players was significantly higher than the basketball and cricket players. The reason of such result of the present study is not known. However, the possibility of the role of personality in this case cannot be denied. In fact, personality is associated with anxiety. Personality is the product of heredity and environment. It is obvious that the sportsmen selected in this study belonged to a heterogeneous group of the society. Therefore, their hereditary factors are different and conversely as a group of society they have similar exposure either in cricket, volleyball and basketball or in all of them. This in turn suggests that the play situations of these three games are some what different. As a whole, the personality types of cricket, volleyball and basketball players seems to be different which also suggests their different

ability to cope up with the level of sports anxiety. Perhaps, due to such reasons, the level of before the game anxiety was not same as observed among the selected groups of players in the present investigation.

The result of the present study also revealed that in 'during the game' situation all the selected players showed low anxiety level. The appearance of such results may be due to the fact that anxiety heightens in players prior to the game and subsides during the game. Similarly, the anxiety increases again when the competition is replayed in the mind of contestant. Numerous steps are being taken into consideration to alleviate the anxiety of an player. A coach takes care during the game situation and makes the players aware that moderate anxiety helps for better sports performance. Coach also reminds some strategies for alleviation of excessive anxiety in a player and compresses skilled performance. Therefore, it is obvious that level of anxiety in during the game situation should be automatically low which is also prominent in the present investigation.

Regarding after the game anxiety, the present study showed that all the players of cricket, volleyball and basketball players had low anxiety level. In general, the level of anxiety, tension, stress etc., reduces after reduction or cessation of intensity of stressor. Like-wise, after the end of a match or competition (i.e., at the post-game state) the intensive stressful environment disappears and therefore anxiety at after the game situation reduces. The same results have also been evidenced by the present investigation. Moreover, anxiety is a psycho-physiological phenomenon. In after the game situation, along with reduction of psychological stressor, the physiological attributes slowed down their intensities and gradually a state of super-compensation arises. According to the principles of training schedules, it is called as relaxed state and obviously in this state of relaxation the level of anxiety becomes automatically low. The results of the present study have also showed a similar trend which revealed that the after the game anxiety level was low. Thus the result of the present study has justifiable significance and is valid.

Conclusions :

In the light of vivid discussion, the investigator confirmed that the result of the present study has sound logical reasoning and justifiable base. Thus, within its limitations, this piece of research warrants the following conclusions -

- Basketball players have higher level of sports anxiety than volleyball and cricket players.
- Sports anxiety in before the game situation was higher than the anxiety in during the game and after the game situations.
- All the players that participated in this study belonged to moderately high anxiety group.

Recommendations Based on Findings :

In this study the following recommendations were put forth in order to achieve an effective implementation:

1. This study recommends that as the arousal of sports anxiety is quite natural among sportsmen, the sports coaches must take care of their high anxiety players, specially the players of basketball.
2. It is recommended that as most of the sportsmen suffer from before the game anxiety, the coaches or physical educators must take appropriate steps before-hand for remedial measures. Of course, the players should be informed that a certain level of sports anxiety is essential for better performance in a sports competition.
3. The results of the present study recommend that sports coaches or sports trainer must include special training schedule to cope with the aroused sports anxiety.
4. This investigation revealed that sportsmen also persist certain level of anxiety even after the game or after the competition is over. This result in turn recommends that some relaxation techniques may be useful or appropriate for those players.

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Number Theory Application to the Gregorian Calendar

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Abstract:

Number Theory is branch of mathematics. In Number Theory, problems look simple but require a deep insight to solve it. One such problem is to find the day of the week from any given date. Pope Gregory fixed this problem with his set of rules. Using these rules a calendar was made which was called Gregorian calendar. Niven and Zukerman[1] have introduced this problem in their book "An introduction to the Number Theory". The formula to find the day of the week is derived using Number Theoretic concept, using which one can easily find day of the week for any given date.

This paper proposes to give a broad discussion about the solution of the problem to find day of the week for any given date using congruences. It also gives a formula to find first day of the month. Given a day number for a particular date, the paper also proposes to find day number for another date.

Key words: Number Theory, Gregorian, day of the week, congruences

Number Theory Application To The Gregorian Calendar

Introduction

- It takes the earth about 365.2422 days to go around the sun, but a normal calendar year is only 365 days.
- The extra fraction of a day adds up: circling the sun four times takes 1460.9688 days, but four calendar years would only be 1460 days.
- That 0.9688 is almost a whole day, so every four years we add an extra day to our calendar, February 29. We call that year leap year.
- For hundreds of years, people used a calendar called the Julian calendar that followed this rule, adding a leap year every four years.
- However, because 0.9688 isn't *exactly* a whole day, the Julian calendar slowly began to disagree with the real seasons.
- In 1582, Pope Gregory fixed this problem by ordering everyone to use a new set of rules.
- These rules are named the Gregorian calendar, after him.
- Content of the paper is determine the day of week in this presentation is **to determine the day of the week for a given date** after the year 1600 in the Gregorian Calendar.
- Because, the leap year day is added at the end of February, we consider that each year ends with the month of February.
- Hence, in any Gregorian year Y, the year would begin with March as the first month and February as the last month.
- Notation : $a \equiv b \pmod n$ means n divides $a - b$ where a and b are integers and n is positive integer.

The derivation of the formula is given in the paper in seven parts as follows.

Part -1: Numbering of the days.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0	1	2	3	4	5	6

- In a Common year: Number of days are $365 \equiv 1 \pmod 7$
- In a Leap year: Number of days are $366 \equiv 2 \pmod 7$

- February 28 is the 365th day of the year, and $365 \equiv 1 \pmod{7}$ February 28 always fall on the same weekday as the previous March 1. Thus, if a particular March 1 immediately follows February 28, its weekday number will be one more modulo 7 than the weekday number of the previous March 1. But if it follows a leap year, February 29, its weekday number will increased by 2.

Part – 2 : Derivation of week day for March 1, 1600.

Let D_{1600} be the weekday number for March 1, 1600; then March 1 in the years 1601, 1602 and 1603 has numbers congruent modulo 7 to $D_{1600}+1, D_{1600}+2$ and $D_{1600}+3$ respectively, but the number corresponding to March 1, 1604 is $D_{1600}+5 \pmod{7}$ because 1604 is a leap year.

We can summarize as follows: weekday number D_Y for March 1 of any year $Y > 1600$ satisfy the congruence:

$$D_Y \equiv D_{1600} + (Y - 1600) + L \pmod{7} \text{ ----- (A)}$$

L be the number of the leap years present between March 1, 1600 and March 1 of the given year Y ;

Part – 3 : To Find the number of Leap year between March 1, 1600

And March 1 of given year Y

- We count the number of years that are divisible by 4.
i.e. $[(Y-1600) / 4] = [(Y/4) - 400] = [Y/4] - 400$
- Deduct the number of century years.
i.e. $[(Y-1600) / 100] = [(Y/100) - 16] = [Y/100] - 16$
- Add the century years divisible by 400.
i.e. $[(Y-1600) / 400] = [(Y/400) - 4] = [Y/400] - 4$

Note:- Here, values inside “[]” take integer values.

- $L = i - ii + iii$
Thus, $L = [Y/4] - [Y/100] + [Y/400] - 388 \text{ ----- (B)}$
- Example:- Lets us obtain the leap years between March 1, 1995 & March 1, 1600.
 $L = [1995/4] - [1995/100] + [1995/400] - 388$
 $= [498.75] - [19.95] + [4.9875] - 388$
 $= 498 - 19 + 4 - 388$
 $= 95$
- So the number of leap years between 1995 & 1600 are 95.

Part -4 : To find the day of March 1, 1600.

- Consider March 1, 1995 therefore $Y = 1995, D_{1995} = 3$
So Equation (A) will be as follows:-
 $3 \equiv D_{1600} + (1995 - 1600) + 95 \pmod{7}$
 $3 \equiv D_{1600} + 395 + 95 \pmod{7}$
 $3 \equiv D_{1600} + 490 \pmod{7}$
Note : $490 \equiv 0 \pmod{7}$
 $3 \equiv D_{1600} \pmod{7}$

Hence, March 1, 1600 also occurred on a Wednesday.

So the congruence giving the day of the week for March 1 in any year ‘Y’ can be reformulated as

$$D_Y \equiv 3 + (Y - 1600) + L \pmod{7} \text{ ----- (C)}$$

Part – 5 : To find the week day for March 1 of given year Y .

- Writing Y as $Y = 100c + y$, where $0 \leq y < 100$
Here, ‘c’ denotes the number of centuries.

y' denotes the year-number within that century.

Equation (B) can be written as

$$L = [(100c + y)/4] - [(100c + y) /100] + [(100c+y)/400] - 388$$

$$L = [25c + (y/4)] - [c + (y/100)] + [(c/4) + (y/400)] - 388$$

$$L = 25c + [y/4] - c + [y/100] + [c/4] + [y/400] - 388$$

Note that : $[y/100] = 0$ and $[y/400] = 0$

$$L = 24c + [Y/4] + [c/4] - 388 \text{ ----- (D)}$$

- Substitute value of L and Y in (A)

$$D_Y \equiv 3 + (100c + y - 1600) + 24c + [y/4] + [c/4] - 388 \pmod{7}$$

$$D_Y \equiv 3 + 124c + y - 1988 + [y/4] + [c/4] \pmod{7}$$

Note that : $124 \equiv -2 \pmod{7}$

$$1988 \equiv 0 \pmod{7}$$

which is then reduced to,

$$D_Y \equiv 3 - 2c + y + [y/4] + [c/4] \pmod{7} \text{ ----- (E)}$$

gives weekday number of March 1 of given year Y

Example: To find weekday number of March 1, 1990.

Here, $c=19$ and $y=90$

$$D_{1990} \equiv 3 - 38 + 90 + [19/4] + [90/4] \equiv 55 + 4 + 22 \equiv 81 \equiv 4 \pmod{7}$$

March 1 was on Thursday in 1990.

Part – 6 : To find the day of the week on which the first of each month would fall.

Since, $30 \equiv 2 \pmod{7}$ and $31 \equiv 3 \pmod{7}$, hence a 30 day month advances by 2 the weekday on which the next month begin & 31 day month advances it by 3.

The table gives the value that must be added to day- number of March 1 to arrive at the day- number of 1st day of each month of any year y.

March	April	May	June	July	August	September	October	November	December	January	February
0	3	5	1	3	6	2	4	0	2	5	1

For $m=1,2,\dots,12$, the expression $[(2.6)m - 0.2] - 2 \pmod{7}$ produces the same monthly increases as indicated by the table.

- We can use the following formula to find the first day of the mth month of year Y:-

$$D_Y + [(2.6)m - 0.2] - 2 \pmod{7}$$

- Example : To find the first day of December 1, 1990.

Note that $D_{1990} = 4$. (calculated)

$$\begin{aligned} D_{1990} + [(2.6)10 - 0.2] - 2 \pmod{7} &\equiv 4 + [25.8] - 2 \pmod{7} \\ &\equiv 4 + 25 - 2 \pmod{7} \\ &\equiv 27 \pmod{7} \\ &\equiv 6 \pmod{7} \end{aligned}$$

December 1, 1990 was a Saturday.

Part – 7 : To find weekday of a particular day of the given year

Finally, the day number w of the date d, month m and year Y, is determined from the following congruence

$$w \equiv (d - 1) + D_Y + [(2.6)m - 0.2] - 2 \pmod{7} \text{ ----- (F)}$$

- substitute value of D_Y from (F)

$$w \equiv d + [(2.6)m - 0.2] - 2c + [y/4] + [c/4] + y \pmod{7} \text{ ----- (G)}$$

Example :

- Consider date : 08th December 2012.
- Here December is considered as the 10th month of the year 2012 as the Year begins with 1st March according to the Gregorian Calendar.
- $w \equiv 8 + [2.6 * 10 - 0.2] - 2 * 20 + [20/4] + [12/4] + 12 \pmod{7}$
 $\equiv 8 + [25.8] - 40 + 20 \pmod{7}$
 $\equiv 8 + 25 - 20 \equiv 13 \pmod{7} \equiv 6 \pmod{7}$

08th December 2012 is Saturday.

Conclusion

Formula (F) finds the first day of the month while formula (G) gives the day of the week for given date. The number theoretic approach to find day of the week from given date is simple to understand. The concept of congruence is sufficient to derive the formula. The formula to find first day of the month is also given in this paper. Given any date after year 1582, a layman can find day of the week.

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The Effect of Specific Training Programme Performance on 400 Meter of Junior College Boys

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Abstract:

The purpose of study was to find out the effect of specific Training Programme performance on 400 meter of Junior College boys. 40 students age range from 16 to 18 years were randomly selected as a subject. Subjects were divided into two groups, namely specific training group and control group. The specific training group underwent at 8 week specific training program and the control group did not undergo any training program. Measurement of speed, power, Cardiovascular Endurance, Muscular Endurance and performance ability factors were taken for both the groups before and after the training period of eight weeks with help of Standing Broad jump, 50 meter Run, 9 min Run & Walk, Bent Knee Sit Ups, 400 meter Run etc. The data was analyzed by using paired sample 't' test and independent 't' test. The result of the study showed that specific training can be an effective programme to improve the performance.

Key Words: speed, Power, muscular and cardiovascular endurance, and performance etc.

Introduction: Specific Training schedule in sports has become very popular among the athletes and coaches. It is a general practice that during preparatory phase of sports training for competition, maximum efforts are given by sports coaches for enriching top performance among their athlete. Power, cardiovascular endurance, 50mtr run, bent knee sit ups & performance among the various muscles of the body.

In the light of the above discussion it was proposed to study. **“The effect of specific training programme performance on 400 meter of Junior college boys”**

Hypothesis of The Study: It was hypothesized that there may not be significant difference in mean gain scores of 400 meter performance, power, muscular endurance and speed and there may be significant difference in mean of cardiovascular components between the experimental group & controlled group, due to the specific training programmer.

Objectives of the study: Objectives of the study were to compare the mean score of 400 meter performance, speed, power, muscular and cardiovascular endurance of boys the experiential group and control group having specific training program.

Limitations: Daily activity of all subjects will not be same. The basic fundamental requirements of day to day life that are vital like diet, health etc. that cannot be controlled.

Delimitations:

- The study was delimited to eight weeks training program.
- The study was delimited to the selected motor fitness components.
- The study was delimited to the student's age group 16-18 years.
- Training program was restricted to specific exercises only.

Significance of the study:

- The study may prove the effectiveness of specific training for the improving motor fitness of Jr. College Boys.
- The present study may help coaches and physical instructors to prepare a proper training programmer for the students.
- Specific training may be successfully used as an alternative means to achieve better fitness level.

Methodology:**Design of the study**

For this study random group design was selected, which consists of one control group and one experimental group which were used to find out effect of specific training program performance on 400 meter of Junior College boys. In both the groups the subjects were 20 in numbers assigned randomly. The specific training was also imparted randomly to one group i.e. experimental group was exposed to training with a set of exercises prepared for the specific purpose.

- **Selection of the subjects**

For this study 40 male athletes from VPM, Mulund (East), Growing students from 16 to 18 years age are selected as a subject.

- **Selection of variables**

Performance of short distance running comprised of many factors. The Researcher Scholars therefore, after discussion with experts in the Track events, with few renowned Athletes, Coaches and with his own experience in the field of athletics decided and selected followed variables for the present study.

- **Dependant variables:** power, speed, muscular and cardiovascular endurance and 400mt. performance.

- **Independent variables**

- 1) High knee Marching.
- 2) High knee marching with extension of the lower leg.
- 3) Seat kicks
- 4) Sprint arm action
- 5) Distance Hopping
- 6) Rabbit hops
- 7) High knee running, moving backward, then forwarded.
- 8) Sprinting with partner resistance.

Administration and collection of data:

The experimental group was trained the above mentioned exercises for a period of eight weeks. The training session were conducted six days a week. Measurement of speed, power, Cardiovascular and muscular Endurance and performance ability factors were taken for both the groups before and after the training period of eight weeks.

Analysis of the data:

Table 1 show that the comparison of mean gain in selected variables of the control and experimental groups.

TABLE 1						
Comparison of mean gain in selected variables between the control and experimental group (between group n=20)						
Variables	Group compared	Mean gain	Mean difference	Std. err. Mean. gain	"t"	Sig.
Power	Control	.75	-2.50	.23	-7.22	.89
	Experimental	3.25		.25		
Cardio vascular endurance	Control	13.50	-16.00	5.53	-1.38	.03
	Experimental	29.50		10.16		
Speed	Control	.01	-1.88	.13	-7.73	.03
	Experimental	1.90		.20		

Muscular Endurance	Control	1.40		.29		.02
	Experimental	6.60	-5.20	.61	-7.60	P<0.05
400 meter running	Control	.0085		.00544	-5.538	.008
	Experimental	.0700	-.06150	.00968		P<0.05

Findings: From the above analysis and interpretation of the data the following finding may be drawn.

- The specific training programme improves the power significantly.
- The specific training programme improves the Cardiovascular Endurance significantly.
- The specific training programme improves the speed significantly.
- The specific training programme improves the muscular endurance significantly.
- The specific training programme improves the 400 meter running significantly.

Conclusions:

Within certain limitations the present experiment warrants the following:

- The specific training exercises imparted in this study for a period of 8 weeks was useful in improving the overall athletic performance as included for experiment.
- Associated fitness variables of athletes were also improved significantly as a result of specific training exercises.

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**Innovative Strategy with Killer Instinct to WIN - Service Delivery
Contract in PAN ASIA region – Implementation of ERP System, SAP R/3
Implementation for a Global Multi-national company for their operations
in 10 Asian Countries**

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Abstract / Introduction:

During the period 1993 onwards, ERP systems (especially SAP R/3) landed in India and other countries (all over the world). ERP systems were meant to bring in great advantages to industry for all global companies and big business houses. ERP systems were made available by different vendors - SAP, Oracle, BAAN and PeopleSoft. PeopleSoft concentrated in areas of HR functionalities,

While SAP, Oracle and BAAN focus was on industries with a strong manufacturing base. SAP, Oracle and BAAN would integrate all the functional areas internal to the organization - in a manufacturing set up. This would mean that any industry implementing these ERPs would have a Central Data Base and further ensure that these functions would get fully integrated from Cash to Cash cycle. This meant that one would be able to access any data from anywhere at any time in all the functional areas in the respective organizations. Thus ERP Implementation was the key word. The functional areas integrated were Finance, Costing, Treasury, Materials Management (Procurement and Inventory management), Production Planning & Control, Sales and Distribution, Plant Maintenance, Service Management, Quality Management etc, but HRM was not included at that point in time.

Key words:

SAP R/3, Core Team, Consultant, Core Team member, business processes, functional integration, centralized data base, connectivity

Introduction :

Implementing ERP systems meant a complete understanding of complete operational details, a good understanding of all infra-structural issues and finally to ensure that one had good mentors and trainers.

Many people at that point in time did not realize the impact/ importance of the points mentioned earlier. Further that implementing ERP was a great team effort on part of consultants and the customers who were embarking on ERP implementation journey. This meant that one had to create a dedicated team from both sides. This joint team was called a core team. The core team members had to have a project identity only. This was the only way to deliver.

The ERP (SAP R/3 implementation during this time was mostly done by the help of BIG 5 Global Consulting organizations. All major global companies would engage them. This meant a very tough competition amongst each other.

This global company (customer) had implemented SAP R/3 for their operations in USA by engaging one of the BIG 5.

For implementing SAP R/3 in Europe, they had engaged another BIG 5 consulting organization. Now was the turn to implement SAP R/3 in PAN ASIA region. The company that implemented SAP R/3 in USA was the most preferred company for this prestigious implementation in PAN Asia. The consulting company that had implemented SAP R/3 in Europe was realizing that they had missed the bus by a huge margin in this rat race to implement SAP R/3 in PAN ASIA. Challenge was to realize/ recognize this status and not surrender, but to make the last effort to put up a very strong fight and win. In case there was no success then, at least the loss is by a very small margin.

The fight to win would have to start in right earnest and best foot forward had to be in place.

Strategy Visualization (introspection since the customer experienced our strengths in USA and Europe)

- 1 Can one dwell on our skill levels?
- 2 Can we talk about our implementation methodology?
- 3 Can we talk about our experience of having implemented SAP R/3 in similar industry?
- 4 Can we talk about our resourcefulness in our pool?
- 5 Pricing Strategies?

It was quite transparent that none of these factors would help us drive the cutting edge to win. The customer had experienced all these factors regarding us as well as the competitors since we had implemented SAP R/3 in Europe and our competitor had implemented SAP R/3 in USA.

It was very clear that path forward had to be something very innovative and still economical with a very huge/ unbelievable advantage in cost. How To Manage This Tricky Scenario?

Development Of Innovative Strategy

Reasoning/ anticipating the possible strategy taken by the competition:

Our competitor's Implementation strategy would have been architected for each of the 10 countries in a serial manner. This means that the implementation would be executed in each country, one at a time and one after another. This would mean, we guessed, an implementation period of roughly 30 to 33 months from start to finish. This would mean huge cost and a long implementation period.

Our strategy to begin with was also similar in nature. By this one would have finished on + or - 2 months difference.

If significant cost impact is to be experienced/ felt, one could adopt a large percentage of outsourcing. Competitor could also resort for this method. Hence this was not a choice to be made.

A unique/ out of the box Strategy to be adopted was to visualize an Asia Business Model.

Asia Business Model means:

- 1) to understand the requirement of the customer in each of the 10 countries
- 2) Mapping all the functional areas country-wise.
- 3) mapping all the business processes in each of the functional areas in each of the countries
- 4) Mapping of special processes that are business critical but that were not addressed in SAP R/3.
- 5) Mapping all the MIS requirements
- 6) Mapping all the data transfer programs that needed to continue after the SAP R/3 implementation
- 7) Mapping the routing or scheduling of these processes. This approach would bring our resources in close touch with the customer each country-wise.
- 8) Plan for data migration as opening balances.
- 9) Mapping the organization structures for each functional area for each country....and many more. We now understand the organizations requirements country-wise in a more authentic manner.

We would collect all these details and meet in any one of the 10 countries for consolidating our understanding regarding the customer.

All persons involved in such an exercise for each such country would also travel to this country to participate in this consolidation exercise.

This strategy was adopted for this global customer.

Strategy Realization

- 1) Country-wise teams were nominated to study the operations of the customer in that country
- 2) Details documentations had to be prepared.
- 3) Time measures for each such processes were also mapped
- 4) Process sequence charts were also created.

- 5) Material Master, vendor masters, Customer Masters, BOM, Routing master etc were also mapped
- 6) Project Manager for such consolidation was nominated
- 7) Country-wise/ Functional area-wise/ process-wise excel spread sheets were mapped and validated
- 8) Function-wise processes-wise common requirements were mapped.
- 9) This process was repeated for all the functional area/processes.
- 10) Such common processes was grouped together and called a common set and named as Asia Business Process Model.
- 11) All such functional areas/ business processes that were not included in the Asia Business Processes Model, would be handled separately in their respective countries by the support of the respective consulting partner.
- 12) It was decided that all the functional area/ business processes assigned to Asia Business Processes Model would be configured in one designated country.
- 13) To configure the Asia Business Processes Model, representatives from each customer and consulting organization each country-wise would be nominated on this core team.
- 14) Each such team now gets exposed to what is covered in the Asia Business Processes Model and what all is not covered in this model. They will also know what needs to be done at a later date.
- 15) Time estimate for ABPM was around 6 months.
- 16) Post the readiness of the ABPM, this ABPM would be installed on each of the application servers in each country.
- 17) Post installation, further configuration would start to ensure the completion (balance processes not covered by ABPM).
- 18) Activities listed in point 17 above will run parallel in all 10 countries. Time schedule/ required for this would vary from 2 months to 6 months max.
- 19) Complete implementation in 10 countries would take a maximum of 12 months.
- 20) As decided, all inputs from all 10 countries was organized.
- 21) Implementation days were allocated for the above activities.
- 22) Representatives of the consulting organization (senior managers and the consults who had done this study) met together in one country,
- 23) Documents were shared in this big group. Small task force teams were drawn up.
- 24) Excel spread sheets were drawn up and validated.
- 25) Functional/ business processes were identified, validated and recommended for ABPM.
- 26) All related activities were completed in 4 days.
- 27) Top management team of the customer was invited on the 5th day to interact with us.
- 28) Agenda for this 5th day: Pre-Lunch – Strategy talk in general. Post lunch – Strategy execution and delivery. Strategy talk in general passed by, but what was the critical success factor was the Strategy execution/ delivery.

Strategy Execution/ Delivery :

- 1) Four hours were planned to explain in details the structure and concept of ABM.
- 2) All the consultants who conducted study in their respective countries were a part of this team to explain their understanding of the operations of this multi-national in that country - Detailed explanation of business processes and organization Structures.
- 3) Explain the concept of ABM. What was contained in it and what was not? Plan to execute the entire strategy.
- 4) Post presentation and validating questions answers session, the multi-national customer's team was highly impressed and announced their satisfaction to partner with us for SAP R/3 implementation pending commercial negotiation.

Conclusion :

- 1 The head of the multi-national customer's team that was receiving the presentation acknowledged the presentation as the best one.
- 2 The Head also acknowledged that he understood his organization completely for the first time in so many years.
- 3 The head mentioned that we were equal to our competitor.
- 4 That we needed to meet the customer's team at the HO in USA for final commercial negotiation.
- 5 Our top management team of the consulting organization was very happy at hearing that we were equal to our competitors. This is because at the start we had no place anywhere.
- 6 There was no joy or happiness expressed by the team leader who was presenting the Strategy Execution/ Delivery
- 7 Team head from customer side observed this and enquired on his disposition and why he was not happy.
- 8 Team leader of Strategy Execution/ Delivery expressed his displeasure of having being equated with the competitor. He mentioned that:
 - a. The project if executed through us would almost cost less than half cost if done with competitor.
 - b. Further the implementation time would be 12 months rather than around 33 months by competitor
 - c. ABM would develop a resource pool within the company. This would further reduce implementation cost and help them have readymade post implementation team to address help desk activities and many more.
- 9 Top management team from customer and the consulting organization were spell bound and silent.
- 10 Head of customer team broke the silence and requested for a cabin to have a small chat with his team for 5 minutes.
- 11 The customer's team came out smiling. The head of the customer team announced that we were not equal to the competition but that we scored 85% and our competition was around 20%. Would this statement make all of us happy? The Deal Was Done.

Critical Success Factors :

- 1 Our clarity on Business Processes integration front
- 2 Our conviction and self confidence
- 3 Our innovative technical and managerial approach – also soft skill, persuasive and committed
- 4 Detailed efforts to map the customer requirements including MIS needs.
- 5 Building bridges with people of different countries much ahead of time.

Reference :

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* * *

Absurdity in Molloy

Amol Patil : Deopur, Dhule

“.....my way is in the sand flowing between the shingle and the dune. The summer rain rains on my life. On me my life harrying fleeing to it's beginning to it's end my peace is there in the receding mist. When I may cease from treading
these long
shifting thresholds
and live the space of a door that opens and shuts.....”

Samuel Beckett became popular and well-known more because of 'Waiting For Godot' than any of his other works specially novels were also more important in his name and fame. He wrote trilogy 'Molloy', 'Malone Dies' and 'The Unnamable', placed him in the centre of the Absurdity, one of the major movements in the modern literature, since the end of the World War II. This literary movement, between 1950 and 1960, which revolutionized both English and World Literature, connected the writers (Samuel Beckett, Edward Albee, Eugene Ionesco, Harold Pinter, Jean Genet, Vaclar Havle, etc.) whose work is an expression of their personal experience, which Albert Camus characterized as Absurdity in his book of essay "The Myth of Sisyphus." The author's personal experience and intimate feelings are the central inspirational sources of all their writing images, reflecting images, reflecting both their state of mind and their spirit. The feelings of Absurdity as a literary creative motivation, connecting a number of literary artists and philosophers. It is also evident in the four novels "Molloy", "Malone Dies", "The Unnamable", and "Murphy".

Samuel Beckett presents the reader with four different images of the same, unforeseeable, sudden, fatal and life feeling. As a painter transforms his visions into colourful spots, in the similar manner, Beckett his mind into the symbolic language of an imaginary life situation. The reader on the on looker gets directly into the centre of the author's world as an observer. Beckett's plays and novels are multi-dimensional pictures connecting literary art with visual ones giving us, through the form of novel, evidence about the author's personal experience. There should be no hesitation in considering Beckett's art to be an expression of his most intimate visions on the fundamental philosophical question about the place of the human being in the surrounding world.

This paper is an attempt to look into Beckett's absurdity through the images of his novel with no exigencies to formulate any general and definitive intellectual reflection by which Beckett could be labeled with specific attributes. I see Beckett's work specifically novel as an art which has its own status independent of all the additional interpretation, as a kind of art which affects mostly the emotions and perception rather than reason.

"Molloy" was written by Samuel Beckett in 1951 initially in French, only later translating it into English. It was published shortly after World War II and marked a new, mature writing style which was to dominate the remainder of his working life. "Molloy" is divided into two sections. In the first section, Molloy goes in search of his mother. In the second, he is pursued by Moran, an agent. Within this simple outline, spoken in the first person, is a remarkable novel, raising questions of being and aloneness that marks so much of Beckett's work, but richly comic as well. It is beautifully written. It is one of the masterpieces of Irish Literature. This is the world premiere recording. It is written by master dramatist, it is ideally suited to the audio book medium.

Inspiration of Molloy:-

The death of Beckett's parents, particularly his mother rocked Beckett's world to its foundations. In life they had experienced a troubled relationship, but with her passing any confidence Beckett had in his knowledge of the world was shattered. The first of "The Trilogy", Molloy is a

working out of this difficult relation between mother and son.

Absurd Beginning:

The narrator of “Molloy” is versed in uncertainties, possibilities and half-remembered, half conjured memories. The opening lines of the novel are uncharacteristically positive assertions-

“I am in my mother’s room. It’s I who live there now. I don’t know how I got there. Perhaps in an ambulance, certainly a vehicle of some kind. I was helped. I’d never have got there alone.” (Beckett, Molloy, p-3)

The ensuing thoughts are riven with doubt and what few facts the narrator lists are unreliable. The assurance that the reader has when reading a novel, evaporates leaving reader and narrator in the same position of doubt.

Wayward wandering:

Molloy gives the example of A and C, are going slowly towards each other, unconscious of what they were doing. He gives the names of alphabets, not by real names. He is walking with them, they are doing things which he does same things, but why he is doing, the answer becomes nothingness. It is suggested that his aim is to search his mother, but he is playing with A and C. They walked in the direction of hill and he imagined about hill. He waywardly walked with them. The point is that, what he thinks, he can’t do that. The modern man is same as the condition of Molloy. The modern man thinks about this, but does that.

Forgetfulness of Molloy:

Immediately Molloy remembers that he is searching his mother. His mind thinks about something but does another thing. He is having the disease of forgetting the work. Same way, modern man is forgetting his aims and goals. He is having absurd mind that divert his aim and goal. He goes to the road and searches his mother. But he finds his bicycle. He remembers his bicycle days with horn and bells. Today’s bicycle is chainless, same way, modern world become chainless. No breaks and chains, just waywardly walks.

Passing the Time:

All that Molloy is to seek ways to pass the time in a situation in which he finds themselves. He remembers his child days, walking in the hill, past memories and physical exercises. He understands perfectly. He always find something, to give us the impression we exist. Here we have the very essence of boredom actions repeated long after the reason for them has been forgotten, and talk purposeless in itself, but valuable as a way to kill the time.

Search for Identity:

Molloy is to search for his identity. He is not identify himself not by name or any substantial work. He walked to search for his mother, but he forgets his identity. He walked waywardly, gave different examples and explained his past memories etc. Then he decided to go to the police station and give the complaint. Then he rest both physically and mindly. Then he described about her room and her things. Then he imagined about fruit, Adam’s apple, summer sky. And suddenly he remembered his name Molloy-

“My name is Molloy, I cried, all of a sudden now I remember.” (Beckett, Molloy, p-20)

But we must remember that Beckett is not didactic writer, connected to communicate a “message” in the novel form. He has rightly described himself as a man, whose identity lost.

“It is impossible for me to talk about my writing because I am constantly working in the dark. It would be like an insect leaving his cocoon. I can only estimate my work from within.” (Sunday Times 20, December, 1964, p-2).

Confused about himself:

Molloy is having the confused about searching for mother and searching for identity. Molloy has chosen the road to search for mother. But he confused about roads, that he thinks it has right or wrong. Molloy has confusion about road and similarly confusion about the identity. If Molloy has

chosen the right road the he will get his goal, but he has chosen wrong road then he will not get the mother.

“I was on my way to my mother only one road was right, the one that led to her, or one of those that led to her, for all did not lead to her. I did not know. If I was one of those right roads and that disturbed me, like all recall to life.” (p-28).

Lost of Identity:

Molloy has lost his identity. Molloy has searched mother but indirectly he searched his identity. He forgets his town name, his name, and discussing about those things which are important and each thing experienced to his own life. He forgets his name and wandering waywardly, not by name or nothing.

“And even any sense of identity was wrapped in a name lessness often hard to penetrate, as we have just seen I think.” (Beckett, Molloy, p-29).

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Cause and Effect of Mental Stress on Physical Education Teacher's Career and their Remedies

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Summary :

The purpose of the current study was to find out the cause and effect of mental stress on Physical Education Teacher's working in the colleges. In the current study researcher find that, teachers had some problems such as personal problems, family problems, occupational stress, lack of up-date knowledge of subjects and over work-load. There are the causes of stress on teachers and some time relation with the staff is not superior. Thus, to avoid the stress we need to Stop smoking as it will help you stay healthy, Reduce caffeine intake will help you stay focused and reduce stress, Eat breakfast as it is the most important meal of the day as it will help you stay healthy, Avoid junk snacks and eat right, Don't let your life just roll by itself. Set realistic goals in life and then pursue them, Make it a point to visit the guidance counselor, as it can help you identify any underlying psychological or behavior problem related to workplace stress, worrying unnecessarily can be a big source of stress. So cut back on worrying as that will reduce your stress, learn and practice anger management as it will help in managing stress, finally proper rest for re-engage is required.

Key-words: Mental Stress, Effect, Teacher Career.

Introduction :

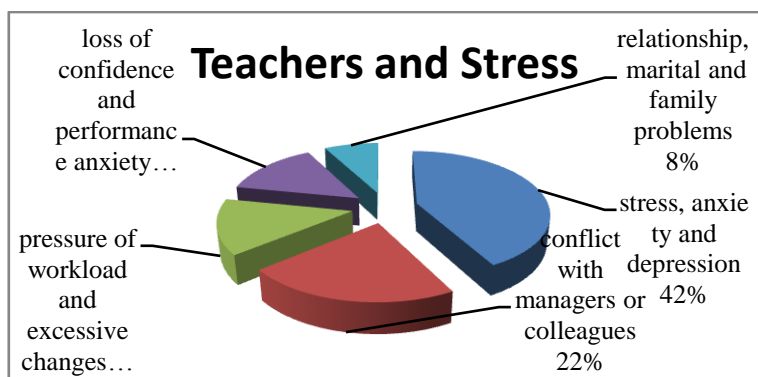
The Physical Education is very rock-solid profession because of over work-load and extra curriculum activities. A teacher is a kingpin in the entire system of education. Almost all cultures of the civilized world have considered their teachers in a very high esteem. They are very often been given names like "Master" "Mentor" and "Guru". To achieve this status teachers throughout the history of civilization have come up to the expectations of the world around them. Most thinkers and philosophers of the past who are still remembered are because they had their disciples and students. Times have changed and the societies and cultures have drastically diversified, but the tasks of a teacher are primarily the same, which is the transfer of knowledge to the next generation. With change in cultural norms and traditions in the societies there has been a drastic change in the expectations from a teacher. Some of these changes have limited the measures which a teacher in the past could exercise in disciplining a student and some have put additional burden on teachers in respect their preparation of lessons and adopting and maintaining their teaching styles. This is because most of the school systems prefer to maintain uniformity in all of their branches. Teaching has now become a very demanding occupation with a lot of stresses for a teacher who has a lot of deadlines to meet and a lot of responsibilities to shoulder besides teaching a child what are in a text book. The development of effective training procedures to prepare the individual to resist the negative impact of stress is of considerable interest to government and industry. Stress inoculation training is a cognitive-behavioral stress intervention that has shown considerable promise; however, a number of questions arise regarding the application of this clinically-based approach to more applied settings. A meta-analysis was conducted to determine the overall effectiveness of stress inoculation training and to identify conditions that may moderate the effectiveness of this approach. Results indicated that stress inoculation training was an effective means for reducing performance anxiety, reducing state anxiety, and enhancing performance under stress. Furthermore, the examination of moderators such as the experience of the trainer, the type of setting in which training was implemented, and the type of trainee population revealed no significant limitations on the application of stress inoculation training to normal training environments (*Teri Saunders, James E. Driskell, Joan Hall, Eduardo Salas, 1994*).

Overview of a Teacher's Responsibilities:

Primarily the role and responsibility of a teacher is multitasked in the present day school

system. This was altogether different just a few years ago. With the change in the type of teaching culture and added managerial responsibilities for teachers include planning and executing instructional lessons, assessing students based on specific objectives derived from a set curriculum, and communicating with parents. A teacher has to take on his responsibilities in the following capacities: Lesson planning and teaching, Accountability for student performance, Class-room management and discipline, Supervisory role, Extra-curricular activity conducting and monitoring.

Teachers and Stress: Teaching has been identified as one of the most stressful professions today. The reasons for that are quite similar to other stressful occupations in the world. In a survey assessing the stress levels of various jobs by the Health and Safety Executive, teaching came out top. The report, *The Scale of Occupational Stress: further analysis of the impact of demographic factors and type of job*, published in 2000, found that 41.5% of teachers reported themselves 'highly stressed', while 58.5% came into a 'low stress' category, while 36% of teachers felt the effects of stress all or most of the time. This is indeed an alarming state and visibly also the biggest reason for school teachers quitting at a very high percentage or seeking professional help to fight back stress. The figures from teacher's support line, USA, show different reasons that cause distress to teachers: stress, anxiety and depression 27%., conflict with managers or colleagues 14%., pressure of workload and excessive changes 9%., loss of confidence and performance anxiety 9%., relationship, marital and family problems 8%.



This shows that the highest percentage is job related stress that can wreck a professional teacher personally while discharging his duties.

Effects of Stress: Stress is considered as an involuntary response to a dangerous situation. When we face a situation which our brain is incapable of handling, it puts the body on alert by producing hormones which are required in fight or flight situation, which are: Increased blood pressure, Rapid heartbeat, Reduced blood supply to the skin, Cessation of digestive activities, Increase perspiration, Additional release of sugar and fast into the system to coup up with the additional energy requirement and Decrease in immune system's functions to preserve it for later action. All these actions are a perfect requirement if we come across a physically stressful situation, like being attacked by a large predator, but most unbecoming in a classroom scenario. All these actions which are mentioned above have a very long lasting negative effect if these stressful situations are to become frequently occurring feature. They may lead to the following serious and even fatal conditions: Depression and anxiety, Alcoholism, Drug dependency, Congenital heart diseases, Stress related Diabetes.

Teachers and Stress: In relation to the profession of teaching, where a teacher is viewed as

dispensers of knowledge; teachers are increasingly perceived as facilitators or managers of knowledge. They work in a constant socially isolated environments surrounded by hostile views and sometimes threat of physical abuse, and at the same time under a constant fear and threat of accountability for each and every action of both own self and that of the pupil. This alone can be a sufficient cause for stress for an individual. But in the case of a teacher it is multiplied by other factors as well.

Causes of Stress for Teachers: From the outside teaching seems all together a different job with summer vacations, winter vacations and spring breaks. But considering everything that a teacher has to go through everyday all these days off do not do much to get a teacher back in the right frame of mind. According to a research the major causes of teacher stress are: 1) Excessive working hours 2) Excessive workload 3) Rising class sizes 4) Pressures due to OFSTED inspection 5) Changes in curriculum & courses 6) Changes to assessment & testing requirements 7) Poor management 8) Workplace bullying 9) Crumbling schools 10) Pupil misbehavior 11) Risk of violence from pupils, parents and intruders 12) Lack of support with bureaucracy, form filling and routine tasks 13) Lack of job security due to redundancy and fixed term contracts 14) Lack of control over the job 15) Burden of providing cover 16) Threat to early retirement arrangements 17) Denigration of profession by politicians & media 18) Lack of public esteem.

Methods of Identifying Stress: Identification is the first step towards correction; with this belief in mind it is strongly advised that a teacher should understand the implications of stress on his personal health and social life. The best ways to have stress identified easily is to remain active in his social circle and readily accept any recent psychological or behavioral change observed by the others. It is also possible to keep a track of own changes by maintaining a self checklist (Appendix 1) this will help in establishing changes in ideas and opinions over a period of time. This will show a clear picture of how the work place environment have affected your thinking gradually and with the help of your friends, colleagues and relatives, you can change the effects of stress on your life.

Self Analysis: The best way is to keep a check on your own health, attitude and behavior. Any change in these should be noted and necessary remedial measures be taken immediately to overcome this situation. The self stress checklist given at appendix 1 can be a helpful aid in determining the change in attitude which can be useful for determining the own state.

Mutual Analysis: Another way is to maintain close liaison with other members of the faculty and discuss the irritants that are creating problems or are likely to create stress for the teachers. This is one way to identify and eradicate the issues which are likely to become the cause of stress beforehand. The faculty members or an organization of teachers can benefit the affected teacher with each other's experience.

Organizational Role: The organization can also play a positive role in helping their teachers in identifying the causes of stress within their schools. Problems such as isolation and disruptive behavior on the part of students and their parents can very conveniently be handled at the top level by the management amicably without putting the teacher in a stressful situation.

Remedial Measures: Some elements of stress are intrinsic while others are situational in the profession of teaching. The teacher has to understand how to cope with those which are intrinsic, while the situational ones can be managed with experience and common sense.

Individual Measures: When a person decides to adopt the teaching profession, he or she during the training phase must realize the demands of this profession in terms of effort involved and in terms of time investment. The workload on a teacher will always be great and everything will always be bracketed by a very tight time schedule. A teacher has to be punctual and able to meet the deadline without fail. A teacher will have to always face the criticism of parents of the weak students and face the school board with a different set of problems. A sensible teacher must know where to draw a line to prevent his social and personal life from being absorbed by his professional life. Though it is very difficult to leave the stresses of the school in the office and not let it affect their personal life, but there

are methods which can help a teacher to reduce these effects.

Adopt a Hobby: It is very important for a teacher to have a hobby which is totally different from him teaches at school. Music, gardening, hiking and painting are a few examples of hobbies which a teacher may adopt. These can give them an outlet and take their minds off from the problems that they face at school. This is one way of getting the day's stress off from their minds.

Adopt Healthy Habits: It is very important for a teacher to main-tain a healthy life-style. Cutting back on bad habits like drinking and smoking will not just make you a healthy person, but will also make you a role model for your students and other faculty members as well. For a healthy living follow the following: 1) Stop smoking as it will help you stay healthy. 2) Reduce caffeine intake will help you stay focused and reduce stress. 3) Eat break-fast as it is the most important meal of the day as it will help you stay healthy. 4) Avoid junk snacks and eat right. 5) Don't let your life just roll by itself. Set realistic goals in life and then pursue them. 6) Make it a point to visit the guidance counselor, as it can help you identify any underlying psychological or behavior problem related to workplace stress. 7) Worrying unnecessarily can be a big source of stress. So cut back on worrying as that will reduce your stress. 8) Learn and practice anger management as it will help in managing stress.

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Assessment of Percentage Body Fat of 12 Years School Students from Nashik District

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Abstract :

The purpose of the study was to assess the Percentage Body Fat of 12 years school students from Nashik District. Three Thousand Fifty male students (n=3050) of Rural, Tribal, & Urban schools were selected randomly as sample by employing Fishers random Table. The subject's age group was 12 years. The score in each criterion measure (% Body Fat) were taken. Descriptive statistics have been applied to process the data prior to employing inferential statistics One way ANOVA. Further, Scheffe's post hoc test was employed for comparison among school students. The result summarized that there was significant difference among school students.

Key words: % Body Fat

Introduction :

Considering the new trend, "Physical Fitness" is one of the aspects of physical education, which can be easily measured and evaluated in view of the existing facilities. Physical fitness is a product of physical activity, and can play a positive role in the prevention of many diseases. Thus we need to develop and structure a programme that includes an emphasis on fitness developing activities.

As result of various surveys done in India and abroad, the definition of physical fitness has changed considerable over the years AAHPER (American Alliance of Health, Physical Education and Recreation) in 1958, which is now known as AAHPERD (American Alliance of Health, Physical Education and Recreation and Dance), though the Youth Fitness Tests, has tried to measure fitness abilities. Here health criteria were not central to the selection of test items.

Through the years, various test items have been included as well as discarded from the test to evaluate one's level of Physical fitness. In recent past, physical education became sports oriented that preferred Physical fitness towards "skill related" rather than "health related".

The remarkable change has been noted in the evolution of definition of physical fitness, when United States of America declared the year 2000 as the "year of public Health" and simultaneously AAHPERD, being an organization of physical education, has received full responsibility for the improvement of national public health. The current definition of fitness as recognized by AAHPERD (1994) includes those parts of fitness that relate to good health specially the essential components of physical fitness are cardio-respiratory fitness, flexibility, muscular strength, endurance and body composition.

India is basically a rural country with agricultural base and hence about 70 percent of the population is tribal & rural while only about 30 percent is urban. The educational system does not differentiate between these two strata. However, there is a district difference in lifestyle of the tribal rural and urban areas in India. The exposure received by the urban population of school going children is positively more and varied as compared to the tribal & rural school going population with regard to physical education. Also the facilities and the infrastructure required in the school are definitely inadequate in this sector. This has a bearing on the performance of the tribal & rural population in the physical activities as compared to their urban counterpart. There also exists a wide culture gap between the two sections thereby leading to the orthodox attitude prevalent amongst the female sex. Participation of girls and boys in physical activities from the rural areas seems to be less as compared to the girls and boys from the urban areas.

It, thus, becomes necessary to study their real status of health – related physical fitness and, to compare whether a significant difference exists in the fitness level between rural, tribal and urban school going boys.

It was, therefore, thought desirable to undertake the problem entitled, “**Assessment of Percentage Body Fat of 12 Years School Students from Nashik District**”.

Material and methods

A survey was conducted in this study. Three Thousand Fifty male students (n=3050) of Rural, Tribal, & Urban schools were selected randomly as sample by employing Fishers random Table. The subject’s **age group was 12 year** was surveyed for % Body Fat. The data was collected administering Omron Digital Monitor test for % Body Fat.

Results

Descriptive statistics were used for obtaining normality of data (**Table 1**). The percentile method was used to prepare the norms and One Way ANOVA and Scheff’s Post Hoc test was used for comparison (All values are significant at 0.05 level) (**Table 2**).

Table 1 Descriptive Analysis of Rural, Tribal and Urban area 12 years Boys

Test Items	Area	Mean	SD
1. % Body Fat	Rural	14.19	3.09
	Tribal	11.93	3.19
	Urban	14.41	3.39

From table 1, the mean scores & Standard deviation of 12 years Rural, Tribal and Urban boys in **Percent Body fat**, 14.19, 11.93, & 14.41 (SD=3.09, 3.19 & 3.39)

Table 2 One Way ANOVA- Rural, Tribal and Urban area of 12 Years School Boys

		Sum of Squares	Df	Mean Square	F	Sig.
% Body Fat	Between Groups	4107.578518	2	2053.789259	197.5772548	0
	Within Groups	31652.3696	3045	10.39486686		
	Total	35759.94812	3047			

From Table 2, F value of Rural, Tribal and Urban area wise comparison of all variables i.e. 197.5772548 for % body fat which are statistically significant at 0.05.

Discussion :

This study has a great impact in the field of physical education at the school level. The result of this study will help various academic and sports agencies in different manners. Suggestions from this study also guide the teacher education colleges to modify their curriculum according to current needs of the society. On the basis of the diagnostic tools (norms), Govt. can take immediate intervention to launch a suitable state Health Related Physical Fitness among the school students. This study throws a light on the importance of active lifestyle and prevention of lifestyle diseases, thereby motivating the parents, teachers & the students in adopting an active lifestyle.

Conclusion

With the help of present investigation the following conclusion are drawn.

- % Body Fat of Rural Boys was higher than Tribal and lower than Urban Boys.
- % Body Fat of Urban Boys was higher than Tribal and Rural Boys.
- % Body Fat of Tribal Boys was lower than the Urban and Rural Boys

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Sindhudurg District Central Co-Operative Bank Ltd. Sindhudurg - Case Study of Seven Branches in Vengurla Taluka

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Abstract :

Banking sector plays a significant role in development of Indian Economy. So banks need to optionally leverage technology to increase penetration, improve their productivity and efficiency. The state of Maharashtra occupies the most prominent position in the economic and banking map of India. It is the most economically advanced state in India. The co-operative bank's as well as District Central Co-Operative bank movement played very important role in economy of Maharashtra. There are 31 district central cooperative banks in Maharashtra. This research paper to study the economic need and its different members appropriation of Deposits, loan, Revenue Cost and profit. The outdoor economy transaction it become indeed for research work in Sindhudurg District Central Co-operative Bank Ltd. Sindhudurg under single scientific study.

Key words : Central Bank, Co-operative Bank, Revenue profit.

Introduction :

The Co-Operative movement in India start to make the (agriculturist class). Indian farmer who were doing hardwork in rural area and also trapped by money landers as self reliant. First time efforts were taken in 1982 by Madras is in the form of "sahakari krushi bank", now a day's economic development through co-operation become basic goal of every state in nation. It will not become contrary to say that Maharashtra state is farmer in such movement.

Maharashtra given genuine support to co-operative movement in whole country. The progress in economical development of Maharashtra is going on fastly. The co-operative sector has treat communication of it. The co-operative movement played very important role in economy of Maharashtra.

Such movement is progressive in western Maharashtra. It is seen in kokan region that such progress is quit unsatisfactory. It is resumed that the co-operation has not settled in today's situation.

The sindhudurg district Central Co-Operative Bank plays an important role in bringing kokan region is deemed to be backward co-operative movement.

The progress of this bank is very good as compare to other co-operative banks, only because of this bank got award from Maharashtra State Bank Association in the year 2005-2006 like wise this bank going to enter silver jubelley year on 1st July 2007.

A researcher is working as Prof. of Economics in senior department of Br. Balasaheb Khardekar College at Vengurla, Dist - Sindhudurg. He himself share - holder in Sindhudurg District Central Co-operative Bank of Vengurla Branch. In this taluka this bank has its seven (7) branches due to economic need of its different members appropriation of loan different beneficial schemes & out door economy transaction, it become necessary for research work in Sindhudurg District Central Co-operative Bank Ltd. Sindhudurg under single scientific study of seven branches and try to focus on it.

District Central Co-operative Banks:

There are 31 District Central Co-operative Banks in Maharashtra whose primary object is to provide for the credit requirements of the Primary Credit Societies. The First such secondary level co-operative was registered in Mumbai in 1911 under the Government of India Act, 1904. Since then these Central banks have laid the firm financial infrastructure for the co-operative movement in

Maharashtra. The DCCB as the name suggest has an area of operation covering a single district. In any district, the banking system would comprise Commercial Banks, Co-operative Banks and other agencies like SFC, MFIs, Non Formal Credit institutions and Non Banking Credit agencies. With the available resources and unique strengths of the DCCB, a market needs to be developed which is appropriate, adequate and profitable. The progress of the District Central Co-operative Banks can be seen from the following Table :

Table No. 1

Table : The Progress of The District Central Co-Operative Banks in Maharashtra

No	Particulars	2001	2002	2003	2004	2005	2006	2007
1	No. of Banks	30 (100)	30 (100)	30 (100)	31 (103.33)	31 (103.33)	31 (103.33)	31 (103.33)
2	Branches Including H.O.	3718 (100)	3804 (102.31)	3807 (102.39)	3793 (102.02)	3729 (100.29)	3689 (99.22)	3646 (98.06)
3	Members	144 (100)	119 (82.64)	121 (84.03)	129 (89.58)	123 (85.42)	116 (80.56)	131 (90.97)
4	Of which Co-op Societies	85 (100)	88 (103.53)	90 (105.88)	92 (108.24)	94 (110.59)	96 (112.94)	98 (115.29)
5	Of Which Individuals	29 (100)	31 (106.90)	31 (106.90)	37 (127.59)	29 (100)	30 (100)	33 (113.79)
6	Share Capital	68,315 (100)	78,632 (115.10)	86,591 (126.75)	93,992 (137.59)	1,00,153 (146.60)	1,08,191 (158.37)	1,18,441 (173.37)
7	Of which Govt.	785 100	672 (85.60)	484 (61.66)	548 (69.81)	458 (58.34)	458 (58.34)	458 (58.34)
8	Owned Fund	2,40,999 (100)	3,16,017 (131.13)	3,93,927 (163.46)	4,71,525 (195.65)	5,08,277 (210.90)	5,80,970 (241.07)	9,32,221 (262.33)
9	Deposits	17,86,285 (100)	19,57,347 (109.58)	21,42,020 (119.91)	23,88,731 (133.73)	24,82,254 (138.96)	26,40,230 (147.81)	27,65,725 (154.83)
10	Working Capital	24,27,842 (100)	27,49,865 (113.26)	29,90,487 (123.17)	32,90,258 (135.52)	34,72,005 (143.01)	36,86,387 (151.83)	40,70,177 (167.65)

(Source : Cooperative movement at a glance – Office of the Commissioner for Co-Operative & Register of Co-operative Societies Maharashtra State – Pune.)

The above table shows the progress of District Central Co-Operative Banks in Maharashtra during the seven year from 2001 to 2007. For the purpose of evaluation of progress of the banks ten points is considered. The above table concludes that :

- * The number of DCCBs increased in the Maharashtra during the study period from 30 to 31.
- * the number of branches increased during the period was 3,718 in the year 2001 to 3646 in the year 2007.
- * The total number of member of DCCBs also shows the decreasing position during the period from

- 100 percent to 90.97 per cent.
- * The amount of Share Capital of DCCBs shows the increase in the percentage that 100 per cent to 173.37 per cent.
 - * It is interesting to note that the share of government in the share capital was decreased from 100 per cent to 58.34 per cent during the study period.
 - * The progress of own funds shows by the table that the own funds of DCCBs increased from 100 percent to 262.33 per cent during the seven years period.
 - * The growth seen from the table in the deposits was 100 per cent to 154.83 percent during the period 2001-2007.
 - * The working capital also shows the growth from 100 per cent in the year 2001 to 167.65 per cent in the year 2007.

Characteristics of Research

Following are the characteristics of given study.

- 1) To provide information as to appropriation of loan & deposits of members 7 Branches of Sindhudurga District Central Co. Operative Bank Ltd. Sindhudurg in Vengurla Taluka.
- 2) To study the economical Conditions of every Branch as well as every worker & member of such branches.
- 3) To get the knowledge about different programme and beneficial scheme of the branches.
- 4) To procure the knowledge about auter aconomical transaction other than its member.
- 5) The information is taken from 2002, about progress of branches and study available facilities of bank as well as take information as to appropriation of benefits.
- 6) To suggest measure for making Sindhudurg District Central Co-Operative Bank Ltd. Sindhudurg more meaningful & efficient.

Presumptions :

Presumptions are important to get the right direction for making research impressive in this regard following presumption are led down in given search.

- 1) The appropriation from the loan taken from the bank is made for the purpose of production & things relating to the production.
- 2) Different schemes were implemented for all purpose of raising deposits from member of bank.
- 3) The demand of loan from various member were satisfied by many lending of bank.
- 4) Some times departments loan were not recovered on time.

Preparation :

Sphut articaly were published in different magazines & daily newspaper regarding

The study is not conducted by bank itself or no anybody for M. Phil or Ph. D. I have collected information related to this bank & other government Co-operative bank published in different reports or other daily news papers from time, to time as well as I have collected different cutting & articles related to this bank. I have studied the Thesis of Dr. P. L. Landage on Ratnagiri District bank. Who is working as Prof. of economy in Ratnagiri Senior College.

In history of world economics different principles were given out which some were helpful in selection to Co-operative & economical development.

e.g. Piggus wellfairs economics utility & wellfair ideas or Phillips arrangement in curve by Prof. A. W. Philips and SWOT explanation.

Review of Research

1) Area of Study :

Only seven branches from Vengurla Taluka has taken for study out of total 79 branches from

whole district. Which are much better

2. Selection of branches :

For research purpose Vengurla Taluka have selected and the branches were Vengurla, Shiroda, Mhapan, Hodawada, Vetore, Redi & Aarawali - Tank.

3. Selection of Model :

For the study of this thesis better model techniques will be use. Only 7 branches will be select for the study of this thesis belonging Vengurla Taluka from total 79 branches of Sindhudurg District Central Co-operative Bank.

Lastly Conclusion will be open by using statistical techniques on collection information for easy.

Benefits & offers of Government :

The different Government Benefits & offers of bank as well as member registration of bank are totally depends on the different co-operative laws of Government used in bank

e.g. Sub laws 07 bank & Act 2 (13) of Co-operative Institutes Law of Maharashtra state 1960 & Maharashtra Government Institutes Law 1961 Mu. 22

Conclusion :

The Sindhudurg District Co-Operative bank played vital role in the social & Economical development of the District. The bank is entering in to the Golden Jubeli year. In last fourty years the bank is making progress by opening various branches at Taluka level and the Village level. This bank is collecting small savings from overall rural are and it also landing money of the small business men and women self help groups. By this way the bank is playing very important role in self employment generation in the District.

Table No. 1

(Rs. In Lack)

Branch	Establishment	Existing Staff	Total Deposit	Total Loan	Total Revenue	Total Cost	Profit	Loss
Vengurla	1964	27	1567.00	152.9	109.29	96.25	13.00	--
Shiroda	1977	08	890.47	240.23	74.45	69.77	4.57	--
Mhapan	1981	04	924.9	149.64	34.88	30.85	4.03	--
Hodawada	1963	06	715.1	281.76	45.36	44.53	0.7	--
Vetore	1989	04	244.19	267.24	24.14	22.29	1.85	--
Redi	1997	03	378.48	112.08	28.53	25.56	2.57	--
Aarwali Tank	2002	03	201.12	102.04	8.47	7.52	0.97	--

Source :- Field work (2006-07)

The above Table No. 2 indicates the development of various branches in the vengurla Taluka. In the year 2006-2007 the ratio between total interest earned and profit is satisfactory. All the branches are showing profit and no one is incurring a loss it shows the bank is making progress at all the boundaries.

The recent survey shows that the bank has converted its extension counter of Aarawali as a separate branch. Recently the changes have been taken place in the Management of the bank. The new chairman & Director are ready to provide ATM service to their Customers. The Computerization of various branches is at the end point.

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Towards Preparing A Globally Competent Curriculum

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Abstract :

Global competence denotes global literacy. It is the process of acquiring the skills and attitude required to perceive the challenges, developments and issues at the local and national level from a global perspective. Present day Indian education urgently warrants a globally learned curriculum to produce global citizens. Multilingual, multicultural and socially stratified Indian society has immense scope to assimilate the concept of global curriculum at the secondary school level. The development of a globally competent curriculum demands significant reformulation at the design, transaction and evaluation level of curriculum construction. The present article rationalizes the need for preparing a globally competent curriculum in India.

Introduction :

Competence relates to empowerment and competent refers to the state of being empowered. Curriculum can be adequately referred to the systematic alignment of academic and co-academic concepts to be conceived and followed by all those individuals who enroll to the respective study course.

The Concise Oxford dictionary defines curriculum as “Course of Study” and notes that it derives from the Latin word for a chariot race-course. To be global relates to the state of holding and nurturing ideas from a global/wider perspective in order to be perceived by a wider audience. Hence, a globally competent curriculum may be empirically defined as the curriculum which is designed to provide the students a global outlook on every concept attained during the course of study. A globally competent curriculum is the means of achieving global competence.

The definition of global competence comprises of certain principal basic elements that enables the learner to function productively in a global economy. These elements include global awareness, a global obligation and commitment to one's actions, readiness to reform and appreciation of diverse cultures, attitude to learn global perspectives on diverse issues and skills/abilities to compete globally.

Rationale for a globally competent curriculum in India :

India in its last six decades of glorious and progressive educational history has crossed numerous significant milestones. Rapidly reducing global boundaries and subsequent emergence of national economies and perspectives demands the development of globally literate students who are empowered with the skills, attitudes and competencies to learn globally, think globally and act globally. Though Indian education system has tremendous challenges in form of equity, equality, access, infrastructure and policy implementations, global competence needs to be emphasized at least at the secondary and higher secondary level. This is highly essential to create Indian citizens capable of challenging issues of global significance and develop an outlook which is sensitive to the local and national challenges, yet incubates a solution that can be of global relevance. Globally competent curriculum warrants immediate attention for a plurilingual and culturally diverse country like India. Globalization, proliferation of IT sector, e-economy and the tech-revolution are continuously changing our assumptions about the state of being literate. A decade old 21st century imperatively demands learners who are rooted in emerging traditions and not outdated assumptions. Hence, our curriculum also needs to evolve in this transition and reformulate itself into a comprehensive design which has the national socioeconomic challenges and context at its center and a global attitude within.

Parameters of change :

Formulation of a globally competent curriculum requires creative changes at certain curriculum parameters. The parameters essentially belong to the design, transaction and evaluation aspects of the curriculum.

Design - The following are a few prominent methods of fostering global competence that can

be adopted while designing a curriculum.

1. Selection of curriculum content that is sensitive to local and national context, yet targeted at development of skills to analyze, interpret, communicate and implement solutions of global significance.
2. Inclusion of concepts of global relevance in science and environmental studies.
3. Deletion of culturally and religiously provocative content.
4. Adequate provision of learning at least one foreign language.
5. Adequate provision for content nurturing critical reasoning skills and inquiry.

Transaction- The following are a few prominent methods of fostering global competence while transacting the curriculum.

1. Curriculum theory should be linked to practice. These practices are essentially linked to promoting global competence.
2. The topics selected are of global relevance and targeted towards development of respective global learning skills.
3. Learning experiences needs to be attuned to global standards.
4. The classroom experiences can be connected to the external cultural and social organizations such as civic bodies, non government organizations etc which work towards alleviating local issues of global relevance.

Evaluation- The following are a few prominent measures that can be adopted at the assessment stage.

1. An optimum blend of Formative and summative performance based assessment
2. Employing global performance indicators for assessing assignments, projects dealing with global concepts
3. Assessing global leadership skills through debates and exhibitions.
4. Emphasis on interdisciplinary research projects and evaluating these researches with the help of global performance indicators that analyze the relevance of the research problem and the solution derived.

Role :

A globally competent curriculum is a multidimensional task. It needs the skill and expertise of committed professionals in the field of education and allied fields. The task is complex too as it demands innovations at various levels of the system of education. Prominent role players are teachers, family and community, policy makers and educational researchers. Their specific roles are discussed below.

Teachers :

A significant shift in the attitude, instructional practices and methodology and role perception is critical in designing a globally competent curriculum. To implement global learning to the classroom the teacher needs to be essentially holding global perspectives on issues that are locally and national rooted yet possess scope for global relevance. Teachers need to broaden the vistas of instruction by connecting the classroom experiences to remote or proximal, yet globally relevant perspective. Relating the teaching experiences to socio-cultural organizations can serve as a critical link to attain this objective. An interdisciplinary approach can be adopted in facilitating concept attainment. Reflective learning induces analytical thinking skills which in turn increases the probability of learners to analyze issues from diverse perspectives. Techniques like brainstorming, group discussions, team presentations etc are effective modes to increase global competence. Engaging students in projects of local context and instilling inquiry to derive solutions of global significance, advocating group researches and implementing digital modes of expanding the horizons of inquiry are the major pathways to enable students to be global learners. Teachers need to view

subject content from a global perspective, wherever relevant. Highlighting the universality of themes in concepts like religion, community, freedom etc provide students a sense of world. Projecting the universality of knowledge in classrooms enable the students to connect and track the present knowledge to its diverse historical base which instills a global appreciation towards learning and knowledge. Also, the teachers should continuously empower themselves with global competencies by engaging in professional development activities, resource development, adequate reflections on pedagogy capacities and simulation experiences etc.

Teachers need to redefine their identity in the education process. It is highly imperative that a teacher needs to express keen interest in their students, know their interests, respect their views and allow creative freedom in his classroom.

Family and community :

Parents and family members, community members are valuable assets as sources of cultural, social and lingual diversities. These diversities can be tapped by the teachers, recorded and employed to design learning materials that are closely connected to their home/community. Relevant information on these family and community resources can be facilitated in the form of assignments to the students wherein each student collects and records information on their respective home and communities and prepares a chart.

Policy makers and Educational researchers :

Policy makers can contribute to the development of global competence by reviewing, revisiting and reformulating the existing policies to ensure globally competent materials at the level of designing educational objectives of curriculum and content development. Educational researchers can undertake studies to explore, analyze and define the concept of global competence so that they become the research base for further innovations in the curriculum.

Status and prospects of globally competent curriculum in India :

Indian education is diversely rich in issues and challenges of local and national level. Numerous commissions and periodic educational schemes and amendments are continuously engaged in deriving solutions and inviting criticisms. Although these policy amendments highlight the need for a global perspective in the curriculum, it has not been implemented in actual instructional process. The central and state governments are engaged in tackling issues that are directly linked with the specific policies and amendments. Hence inculcating global perspectives in the curriculum has become a secondary challenge. Curriculum in the globalized world is a remote issue and curriculum at the local level is the biggest challenge. Although Right to Education Act(2009) has addressed the problem of education of the huge educationally inaccessible population, yet there remains the problem of access in several sections of rural India. These issues of access and equity are far more sensitive for the policy makers rather than dealing with measures to globalize education. Although ICT has cast a tremendous impact on the design, implementation, transaction and evaluation of curriculum, fundamentally our education has yet to explore potential interdisciplinary researches. Globalized perspectives and need for global education remains a remote priority and therefore receives reduced thrust in the contemporary curriculum.

World today is mutually interdependent. Rapid globalization and digital revolution demands learners who have the potential and skills to work in a global context. India is a country that has a rich and diverse tradition, culture and a permeable economy. These elements of plurilingual, multicultural, enriched civilizations and growing economy itself have the potential to be pathways of global competence. Students of secondary class who are well aware of our traditions and hold a positive attitude to issues related to these parameters can investigate and appreciate the external global

elements in the academic disciplines equally well. Crucial and emerging issues and challenges in the educational system can turn into potent opportunities of global competence. Curricular themes such as Information and communication technology, culture, human rights, democracy, environmental education, population education, UNESCO and modernization possess the inherent scope as gateways of global knowledge.

Conclusion :

To be globally competent is an imperative skill in the 21st century and to nurture and develop these competencies need to be a significant thrust area of present day schools. Hence the need for preparing a globally competent curriculum is justified.

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Studies on Mineral Composition of Soil Supporting *Sesuvium Portulacastrum* (L.) an Associate Halophyte

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Abstract:

coastal soils as well as sea water, which permeate the soil characteristically, have a poor content of available nitrogen. in contrast, halophytes which inhabit these areas have high protein content. this is because halophytes have the ability to conserve nitrogen and recycle it through their body metabolism.

sesuvium portulacastrum L. (aizoaceae) is a pioneer, psammophytic associate halophyte of subtropical, mediterranean regions. it dominates in coastal and warmer zones of the world.

for the present investigation plants of *sesuvium portulacastrum* were collected from mangrove belt of mulund-vikhroli area (+19°4'45.83", +72°55'7.26"). it is a marsh tract from thane extends towards the south along thane creek, where the small channels of the creek in this region form a network among the continuous stretches of mangrove vegetation and comprises a diversity of species. the vegetation is spread over 730ha with about 105 different plant species of mangroves and associates.

in present investigation, *sesuvium portulacastrum* (L.) is used as a model system representing an associate halophyte with efficacy in nitrogen utilization in saline conditions.

keywords: associate halophyte, nitrogen metabolism

Introduction:

associate halophytes grow in the fringe area of mangrove swamps, get inundated 1-5 times per fortnight during spring tide and are also found growing in mesophytic habitat.

sesuvium portulacastrum L. (sea purslane) is one such fast growing, herbaceous, dichotomous, perennial, pioneer, psammophytic halophyte naturally growing in the subtropical, mediterranean, coastal and warmer zones of the world.

in india, it grows among the coastal sides of eastern and western regions as inland or seashore species including areas where mangrove plants are found. this includes coastal regions of gujarat, maharashtra, goa, kerala, tamilnadu, andhra pradesh and orissa

Objectives:

the following study on *sesuvium portulacastrum* L. was done keeping following objectives in mind.

to investigate the correlation between inorganic status of plant and the soil in which it grows as the nutritional status of a plant is largely dependent on its soil environment.

to get an insight in the world of associate halophyte helping in natural conservation of mangrove locations.

Materials and methods:

Material and methods

1.1. Soil analysis

random samples of the soil supporting roots of *sesuvium portulacastrum* were collected from different places of mangrove belt of mulund-vikhroli area (+19°4'45.83", +72°55'7.26") in two different seasons: pre-monsoon (summer) and post monsoon (winter). for each season sample, the dead plant material and litter were manually removed. the collected soils were thoroughly mixed to get a composite sample. the soil sample was brought to the laboratory in polythene bags and air dried in plastic trays. the air-dried soil was gently crushed with a wooden pestle and sieved through 2mm mesh. the soil thus obtained was used for analysis.

(a) Soil ph and conductance:

soil ph was determined according to the method of hester (1930) using equiptronic digital ph meter (eq-610). soil sample and glass distilled water (ph 7) were taken in the proportion of 1: 2.5 in a beaker and stirred thoroughly. after an hour, it was stirred again and the ph was read using the ph meter.

the above soil solution was used for measuring soil conductivity (ec) using equiptronics conductivity meter (eq-661).

(b) Mineral Constituents:

different mineral ions from the experimental soil sample were determined from the soil acid extract.

soil acid extract was prepared according to the method of piper (1966). air-dried soil and ammonium acetate were mixed in proportion of 1: 5 and allowed to stand overnight. this was filtered through whatman no.44. the soil was continuously leached with ammonium acetate till approximately one litre of the filtrate was collected. this solution was evaporated to 2-3 ml and then digested according to the method of toth et al. (1948).

(i) chlorides:

chlorides were estimated by volhard's method (1956). silver chloride present in the acid extract was precipitated using silver nitrate. excess of silver nitrate was determined by back titration using ammonium thiocyanate. this chloride content can be obtained from the amount of silver nitrate used since 1.0ml of 0.1N silver nitrate corresponds to 3.55mg of chloride.

(ii) sulphates:

sulphates were estimated by the method of bower and huss (1948). in this method, sulphates from the acid extract were precipitated using barium chloride solution, to soluble to form baso_4 . the absorbance was related to standard baso_4 suspension to estimate the amount of sulphates.

(iii) nitrogen content:

the soil sample was digested by the kjeldahl's method and total nitrogen content was determined by the method of kjeldahl as described by hawk et al., (1947).

(iv) sodium, potassium, calcium and magnesium content

the digested soil acid extract samples were diluted to a fixed volume and sodium, potassium, calcium and magnesium were analyzed using atomic absorption spectrophotometer (solar s2).

1.2. Plant Analysis**(a) Mineral Constituents:**

the entire plant material of *sesuvium portulacastrum* along with roots collected from the natural habitat during pre monsoon (summer) season and was brought to the laboratory in polythene bags. the material was then washed in distilled water to remove surface dirt and then weighed carefully after blotting. the weighed plant material was placed in an oven to remove moisture. the dry weights of plant material were taken after cooling in desiccators. the procedure was repeated till the weight was constant.

a part of dry material was used for the estimation of chlorides and sulphates as described before in soil analysis.

a known weighed quantity of this sample was transferred to pre-weighed silica crucible. after charring the material it was incinerated at high temperature in muffle furnace till it was reduced to a white ash. from the difference in the weight the ash percentage was calculated.

the remaining dry material was weighed and digested by wet digestion method of toth et al. (1948). the dry powdered plant material was first digested with hot concentrated hno_3 till the contents dissolved. the extract was cooled and decolorised by addition of minimum amount of perchloric acid. the digested samples were then diluted to a fixed volume. sodium, potassium, calcium and magnesium were analyzed using atomic absorption spectrophotometer (solar s2).

Results and discussion :**Soil analysis :**

salinity characters and ionic concentrations of saturated extracts of soil samples of pre monsoon (summer) and post monsoon (winter) soil samples supporting roots of sesuvium portulacastrum are summarised in table 1.1.

the ph of soil in pre monsoon (summer) was found to be acidic which turn slightly alkaline in post monsoon (winter) season. electrical conductivity (ec) of pre monsoon sample dropped marginally when determined for post monsoon sample. among cations, sodium was the highest while potassium was the least. among anions, chlorides are significantly higher than sulphates. seasonal variation in contents of individual cation and anion was observed to be non significant and except for sulphates, for all other ions the amount remain higher for pre- monsoon (summer) sample of soil. sodium and chlorides were the main cation and anions of the soil supporting sesuvium portulacastrum. the nitrogen content of the soil in $g\ 100\ g^{-1}$ was low and did not show any seasonal variation in the content.

high ec indicates high salinity in the soil. salinity is correlated to osmotic potential, which causes dissolved constituents in soil to try to retain water, so plants have to compete with salt for water. osmotic potential is a direct result of combined concentrations of dissolved na, k, ca and mg cations and cl, so₄, hco₃ and co₃ anions which are common constituents in a salty water. the soil is considered saline if ec is greater than 4000 mhos/cm (4ds/cm or 4mmhos/cm).

mishra (1967) and amonkar (1977) have reported that generally non saline soils contain more potassium than sodium, whereas saline soils are usually rich in sodium and poor in potassium. seasonal variations in chloride content in a saline environment have been reported earlier (amonkar, 1971 and chittar, 1977).

s. portulacastrum being an associate halophyte grows at the margins of inter tidal region facing great exposure to the increasing or decreasing levels of water and saline soils are therefore intermittently leached with tidal water. sodium and chlorides are observed to be the main cation and anion respectively in the soil supporting sesuvium portulacastrum. also, sulphate to choride ratio of soil are less than unity suggesting soil is chloride rich soil.

Table 1.1 Salinity characteristics and ionic concentration in saturated extracts of soil supporting Sesuvium

Season	pH	Conductance (25 ⁰ c)	Total N	Na	K	Na/K	Ca	Mg	Cl	SO ₄
		Ms	(g100g ⁻¹)	Values in Meq – L ⁻¹						
Pre monsoon (Summer)	6.14	3.20	1.35	565.2	46.1	12.26	295	383.3	75.77	0.208
Post monsoon (Winter)	7.48	2.988	1.32	544.4	44.1	12.34	212	344.0	72.80	0.212

Plant Analysis

a) Mineral constituents:

Table 1.2 summarises results obtained for ash percentage and cations and anions of *Sesuvium portulacastrum* plant material of Pre monsoon (summer) season.

The ash content of the plant is 23.52g /100g dry soil. Among cations, like soil, even in plant sodium is the dominant cation following which is magnesium. The least is calcium among all form cations. Between chlorides and sulphates anions, chlorides remain eight times greater in absorption than sulphates.

High ash content due to heavy accumulation of salts is formed in many halophytes (Gorham and Gorham, 1955; Choudhari et al., 1964; Waisel and Ovadia, 1972; Kabanov and Otegonov, 1973). Joshi (1981) has reported an ash content of 36.76g /100 g dry wt in stem and 54.43 g /100g dry wt in leaves of *Sesuvium portulacastrum* during summer season. Walter and Stadelmann (1974) have remarked that halophytes are usually characterized by high ash content in their leaves which varies from 15-30% on a dry wt basis. They have further classified halophytes into chloride halophytes (ash percentage more than 30%), Alkaline halophytes (ash percentage more than 30%), Sulphate and desalting halophytes (ash content of approximately 15%)

The values for ash percentage for *Sesuvium portulacastrum* indicate the plants to be alkaline halophyte. High amount of leaf succulence in *Sesuvium portulacastrum* coupled with appreciable amounts of ash percentage tend to describe *Sesuvium portulacastrum* as 'cummulation type' halophyte as per the classification of Walter (1961).

Several investigators have shown that halophytes accumulate sodium and give high content of sodium, even in shoots of halophytes grown on soils low in salts (Adriani, 1958; Waisel and Eshel, 1970). It is believed that halophytes use the controlled uptake of Na^+ (balanced by Cl^- and other anions) into cell vacuoles to derive water into the plant against a low water potential of outside medium due to sodic environment (Flowers et al., 1977; Flowers and Yeo, 1986 and 1988).

Jarusov (1939) has observed that when high sodium content of the soil is accompanied by high calcium content, plants absorb more sodium. Studies conducted on several halophytes occurring along the west coast of India, particularly near Ratnagiri, Chiplun and Goa have indicated that saline soils supporting these plants are rich in calcium ions and therefore, the high sodium content of these plants has been ascribed to the sodium absorption mechanism functioning efficiently in the presence of high calcium in the soil (Joshi, 1976). The soil supporting *Sesuvium portulacastrum* is comparatively low in calcium content, yet plants have high sodium absorption.

Along with sodium, potassium represents another major cation in halophytes. It is known to play an important role in salt tolerance due to its penetration into cell sap and causing protoplasmic changes (Singh and Tripathi, 1979). In fact, the salt tolerance in this group of plant is usually associated with their capacity to take up potassium ions from sodium rich environment (Flowers et al., 1977; Amonkar, 1977; and Neals and Sharkey, 1981) According to Kingsbury et al., (1984), there may be an increased potassium requirement when plants are grown under sodium salt stress. High concentration of potassium is also required for the active conformation of many enzymes (Evans and Sorger, 1966).

As explained by Rains and Epstein (1967), Epstein (1969) and Rains (1972), in halophytes there exists a 'Dual Carrier mechanism' where there is preferential absorption of potassium over sodium without affecting absorption of sodium. This selectively increases the concentration of potassium ions. 'Selectivity ratios' (K/Na) as defined by Pitman (1976) is greater than unity, indicates that the capacity of preferential uptake of K operates in wide range of Sodium concentrations. In our studies, K/Na ratio for both soil and plant remain below unity therefore selective absorption of K in plants due to high salinity of soil does not seem to be applicable.

Calcium is considered as an important element to resist salt stress (Hoagland and Arnon,

1948; Epstein, 1961, Mishra, 1967 and Rains, 1976). It plays an important role in maintaining membrane integrity especially during hostile sodic environment (Lynch et al., 1987).

Large numbers of reports are available indicating calcium playing the role in detoxifying the effect of sodium chloride in different plants (Cramer et al., 1986; Grievi and Fujiyama, 1987; Maas and Grievi, 1987; Cramer et al., 1989).

Table 1.2 Mineral constituents in *Sesuvium portulacastrum*

Season	Ash content	Na	K	K/Na	Ca	Mg	Cl	SO ₄
	g 100g ⁻¹	Values in Meq – 100 g ⁻¹ DW						
Pre-Monsoon (Summer)	23.52	587.8	44.61	13.71	23.5	57.5	577.4	66

Though calcium is reported to play a major role in salt tolerance, several investigators found depressing effect of sodium on the calcium uptake (Guggenheim and Waisel, 1977; Lessani and Marschner, 1978). Earlier Bower and Waldleigh (1948) also noted that when the external environment contains more sodium, it interferes with calcium absorption. In the present investigation however low calcium in plant is reflective of low native calcium of soil, however less of difference in values of available calcium to absorbed Calcium suggest that *Sesuvium portulacastrum* is able to absorb optimum calcium in presence of high amounts of Sodium.

The average value for magnesium in terrestrial plants varies from 4.16meq to 58.3 meq. (Berger, 1969). According to findings of Pradhan (1957) and Warrick (1960) halophytes contain less magnesium than glycophytes. According to Moore et al. (1961), Mishra (1967) and Joshi (1974) it is due to difficulty in uptake of Magnesium.

It must be borne in mind, however that in all the above investigations, it was commonly observed that saline soils contain large amounts of Calcium. In our investigations on *Sesuvium portulacastrum* it was noted that the supporting soil has low calcium content but surprisingly the plant shows normal values for Magnesium, but low values for Calcium. Amonkar (1977) in a similar study observed that in *Salvadora persica*, there was increase in both magnesium and calcium content of plant in spite of low calcium content in the soil. In the light of these observations it is difficult to arrive at any definite conclusion.

The most important anion of saline habitat is chloride. Values for chloride in the leaves of mangroves range from 2.0 to 11.7 g /100g dry tissue (Joshi and Bhosale, 1982) and succulent halophytes are known to accumulate on extremely high levels of chloride (Waisel, 1972). Joshi (1976) is of the opinion that there is no definite regulatory mechanism for chloride uptake in mangroves and it may be of passive nature. According to Walter and Stadlemann (1974) the accumulation of chlorides in the cell sap of salt resistant plant is without any toxic effect on the protoplasm. On the contrary, the chloride concentration through its effect in protoplasm induces succulence. However the concentration of chloride ions in cellular environment is maintained at a low level due to enhanced water content.

Chu et al., (1990) in their studies with several facultative and associate halophytes have been reported *Sesuvium portulacastrum* to be a CAM (Crassulacean acid metabolism) plant. CAM plants are not only good at retaining water but also use nitrogen very efficiently.

Sesuvium portulacastrum shows good nitrate uptake as discussed later in chapter III. Also the

enzymes of nitrogen reduction and amino acid synthesis show good activity. According to Fowden (1977) nitrate uptake is mechanically linked with nitrate reduction. Hinginbotham et al. (1967) suggests that accumulation of nitrate occurs against electrochemical gradient and this could be due to active inward transport of these ions towards the tissues. This explains why in spite of low nitrogen content of soil (1.35g/100g) (Table 1.1), the plant total nitrogen is appreciably high (3.99 g/100g). Postulating that high available nitrate of soil is effectively absorbed by plant and through reduction via amino acid metabolism incorporated in to the plant protein, supports the above values obtained for *Sesuvium portulacastrum*. It also helps in explaining high protein content of leaves of *Sesuvium portulacastrum*.

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Analysis of Muscular Endurance among Adolescent School Boys of South India

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Abstract :

Muscular endurance is an important factor, to carry out everyday tasks and enjoy life. The earlier in life an individual becomes physically active the greater the increase in positive health benefits. However becoming physically active at any age will benefit overall health. Improved muscular endurance is associated with an enhanced health status. Muscular endurance is the ability of the muscle to perform repetitive contractions over a prolonged period of time. The purpose of the study is to compare muscular endurance of adolescent boys of South India. To achieve the purpose (N=12000) subjects were selected from Tamil Nadu (TN), Karnataka (KA), Kerala (KL) and Puduchery (PY). Each state (n=3000).The age of the subjects were 13 to 16 years (n=750).All the subjects were selected by adopting stratified sampling method. Muscular endurance assessed with sit ups for one minute duration. The collected data treated with ANOVA, if obtained 'F' ratio is significant, Scheffe's post hoc test was be used to know the paired mean difference. To find out the relationship between age and muscular endurance Pearson product moment correlation was used. The level significant fixed at 0.05. The results shows that PY adolescent school boys superior in muscular endurance comparing than the rest three states and correlation results shows that when age increases the muscular endurance is also increased. Hence it was concluded that the increase of muscular endurance was directly proportional to the age of adolescent school boys.

Keywords: Muscular Endurance, Pearson Product Moment Correlation, ANOVA
Tamil Nadu (TN), Karnataka (KA), Kerala (KL) and Puduchery (PY).

Introduction :

Regular participation in physical activity during childhood is regarded as one of the most important lifestyle factors that can improve muscular skeletal health, fitness and body composition (1 & 2). Although most chronic diseases associated with physical inactivity seldom become manifest before adult hood, promotion of physical activity during childhood is associated with risk factors for disease in adulthood (3). Further low levels of physical activity during childhood predisposes to a future sedentary lifestyle that further increases the risk of diseases (4 & 5). Although, physical activity is regarded as beneficial for muscular skeletal development (6& 7). Most of the children's don't engage in regular physical activity. Muscular endurance prevents undue fatigue from work and other daily activities and allows greater success and enjoyment in athletic and recreational endeavors. The primary purpose of the study analyzes the muscular endurance of adolescent school boys of South India and secondary purpose of the study to find out relationship between the age and muscular endurance.

Methodology :

To achieve the purpose (N=12000) subjects were selected from Tamil Nadu (TN), Karnataka (KA), Kerala (KL) and Puduchery (PY). Each state (n=3000).The age of the subjects were 13 to 16 years (n=750).All the subjects were selected by adopting stratified sampling method. Muscular endurance assessed with sit ups for one minute duration. The collected data treated with ANOVA, if obtained 'F' ratio was significant, Scheffe's post hoc test was be used to know the paired mean difference. Pearson product moment correlation was employed to find out the relationship between age and muscular endurance. The level significant fixed at 0.05.

Results :

Table -1 Anova of Muscular Endurance among Adolescent School Boys Of South India

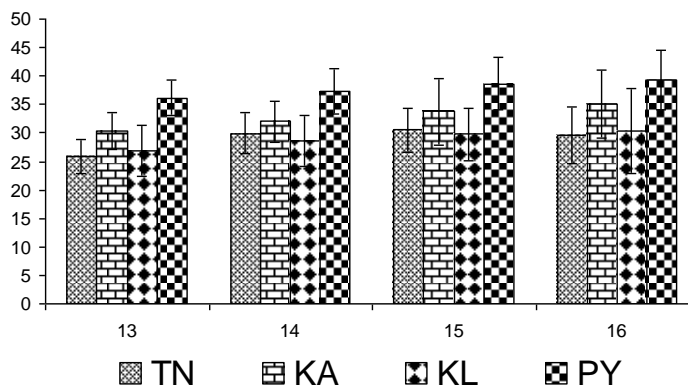
Age (yrs)	Group	Sum of Squares	Df	Mean Square	' F '
13	Between	48754.767	3	16251.589	1249.506*
	Within	38967.200	2996	13.006	
14	Between	33297.967	3	11099.322	538.188*
	Within	61788.000	2996	20.623	
15	Between	36897.333	3	12299.111	503.678*
	Within	73158.133	2996	24.419	
16	Between	46046.133	3	15348.711	1030.001*
	Within	44645.333	2996	14.902	

P ≥ 2.60 *Significant

Table-2 Scheffe's Post hoc test for Muscular endurance of adolescent school boys of South India.

Age	TN vs KA	TN vs KL	TN vs PY	KA vs KL	KL vs PY	C.I
13	4.34*	0.94*	10.29*	3.40*	9.35*	0.61
14	2.05*	1.38*	7.38*	3.43*	8.76*	0.81
15	3.23*	0.76	8.15*	3.99*	8.91*	0.86
16	5.52*	0.73*	9.69*	4.79*	8.96*	0.68

Figure :-1 Muscular Endurance of Adolescence School boys of South India



The results of the study shows that PY adolescent school boys of all age group significantly better than all other selected state boys on muscular endurance. Further it reveals

KA adolescent school boys of all age group significantly better on muscular endurance than TN and KL states.

Table:-1 Relationship between age on muscular endurance.

	13	14	15	16
13	1	.086*	.181*	.186*
14		1	.253*	.369*
15			1	.382*
16				1

***Significant Table value = 0.062**

Discussion On Findings :

Interest in sports and exercise during leisure time is established in the adolescent period. Another investigations show that continuing physical activity in adulthood may reduce low back problems. Therefore, it seems important to encourage youth to participate in physical activity. This may be more suitable than back exercise when back disability becomes a reality (9). The result of study on muscular endurance shows that difference among the age groups (10). The age of adolescents performance of muscular strength, muscular endurance and flexibility increased significantly (11).The adolescents school boys and girls based on physical activity participation the muscular fitness also improved (12). Adolescent’s boys having better muscular fitness comparing than the girls followed by flexibility had better comparing the boys (13). The adolescents age and physical activity results shows that positive correlation and depending on age increasing fitness also increased (14). The adolescents age of 13 to 18 yrs boys and girls assessed fitness, that results indicates may be influenced physical activity there fitness level (15).The study of health related physical fitness of the Tshannda rural school children in 1 to 7th grades on muscular fitness the results shows that boys generally performed higher than the girls (16). The tests results of muscular endurance and flexibility the South African superior, when compared with British and American boys on sit ups (17). Similar trend of increase in sit ups scores with increase in age in Jat school children of Delhi (18).Changes in physique and physical performance in school boys were increased dramatically (19). It is observed that the performance of boys on muscular endurance exhibit a general trend improvement from physical fitness from the age 8 to 18 years (20). The above studies conformity with the present research findings.

Conclusions :

The results of present investigation also indicate that when chronological age increases, muscular endurance increased significantly. Hence it has been concluded that growth development and maturation are positively increases the muscular endurance in adolescent boys. PY adolescent boys of all ages are better muscular endurance comparing to TN, KA, KL states. Correlation results show that when age increases the muscular endurance is also increased. Hence it was concluded that the increase of muscular endurance was directly proportional to the age of adolescent school boys.

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Sports Nutrition: What the Future may Bring

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Introduction :

The field of nutrition is a dynamic one. Athletes often ask their trainers, physiologists, coaches, doctors, and dietitians for guidance related to what to eat and which supplements to use. Registered Dietitians have choices to work within clinical dietetics, nutrition support, research, outpatient or private counseling, consulting to the food industry, consulting to the supplement industry, direct food or supplement industry employment, in product development and many other economical beneficial areas. Exercise physiologists can work in cardiac rehabilitation settings, private health clubs, academic institutions, research organizations, for various private companies (corporate wellness, exercise equipment design, etc.) and other related positions. Often the weekend athlete and the professional athlete will seek nutrition advice from both the dietitian and exercise physiologist. This advice is Sports Nutrition.

Sports Nutritionists may work with individuals, teams, and professional organizations or due to economic influences and opportunity have to split their places of employment (i.e., hospital and private consulting). In our field, the understanding of exercise physiology, psychology, integrated metabolism and biochemistry along with ethics are intrinsic ingredients to success. Within sports, of any sort, there is always a prevailing notion that the athlete strives to get better or be "bigger, faster and stronger". However, whether the athlete is one that is involved in competitive sports, competes with him or herself, or is a "weekend warrior", our charge is to stay ahead of their curve by staying abreast of the latest relevant findings and then applying these findings. If you take into consideration that our friends, family, patients, clients, magazine editors and others are always asking questions about nutrition and couple these questions with those received by our athletes, and it becomes obvious that the motivation to stay current with knowledge both real and theoretical is warranted.

Sports Nutrition is not a licensed profession (yet). Many organizations (i.e., The International Fitness Professional Association, International Sports Sciences Association, etc.) supply certification examinations for sports nutrition. However, none of these organizations carry the clout of the American Dietetic Association, the American College of Sports Medicine or the National Strength and Conditioning Association. Additionally, none of these organizations are able to obtain recognition for their certifications by state governments or the Department of Education. One member of our organization was stated (paraphrasing) that to be a sports nutritionist, all one had to do is to have taken one or two classes in sports nutrition (which most universities do not offer) and that additional coursework in exercise physiology was not needed. Thus, as long as you took your basic American Dietetic Association mandated coursework and a course in sports nutrition, you were capable of working with any athlete (albeit, amateur or professional). The exercise physiology undergraduate training in nutrition is limited, though through elective courses this can be strengthened (also if the student has a double major or a minor in nutrition). Let's be clear, times have changed and we are involved in enabling change. This change includes the advancement of our profession, sports nutrition.

Sports nutrition is a complex field, and a good sports nutritionist has core competencies in nutrient metabolism (biochemistry and metabolism), exercise physiology, and psychology. Athletes today are demanding that we understand their sport. The traditional learning model has taught basics of anaerobic and aerobic metabolism, but not much emphasis on sport specific energy expenditure, nor the influence of post-exercise oxygen consumption (EPOC). Thus, advanced learning beyond that of a baccalaureate degree should be pursued. The need for advanced education whether it is in the form of continuing education, a legitimate advanced degree certification (perhaps analogous to a Certified

Nutrition Support Dietitian or the Exercise Physiologist-Certified) is evident.

Sports nutrition is often considered within the field to have divergent thought leaders. We know that since the science is evolving and that not all keep up-to-date with the latest publications (journals or texts) that not all of us are on the same advising page. Perhaps, controversy is good. If we all were of the same opinion, than what would be the motivation for progress and the pursuit of new knowledge? Take for example, the heated arguments that occur just over the protein needs of athletes as compared to sedentary folk as well as anaerobic versus aerobic athletes. This in and of itself drives the sales of many books and magazines. However, one needs to be cognizant that athletes often view food as one means of obtaining their goals, while ergogenic aids at times are believed to be the missing link which will propel the athlete's performance over the competition. In this situation, knowledge about the safety and efficacy of ergogenic aids is paramount in truly helping your clients.

If we examine basic sports nutrition guidelines over the past fifty years, it becomes apparent the biggest breakthrough was the discovery of how to glycogen load, refinement of the means of glycogen loading (from the days of depletion followed by super-compensation to tapering exercise duration while concomitantly increasing the diet to almost exclusively carbohydrate), followed by nitrogen balance studies demonstrating a slight increase in needs for athletes as compared to the sedentary and the evolution of creatine monohydrate as an ergogenic aid. However, the last ten years may be the most exciting in the advancement of sports nutrition.

The following areas of nutrition are where the most growth is occurring: evaluating the effects of exercise on protein utilization, thus the overall protein needs, meal timing to maximize the anabolic response, the true "essentiality" of essential amino acids, the potential for ribose to benefit those engaged in high-energy repetitive sports (i.e., football lineman), and creatine and its uses within athletics and medicine. It is up to us and other academic thought leaders to help grow the biological and metabolic understanding of the interaction of foods, nutrients, nutrient supplementation, exercise and the recovery from said exercise as well as the actual performance to the next level.

Protein :

A brief review of protein needs of athletes reveals that the current recommended intakes of protein for strength and endurance athletes are 1.6 to 1.7 g/kg and 1.2 to 1.4 g/kg per day, respectively. Presently, most athletes consume an adequate amount of protein in their diet. However, depending upon overall caloric needs and training intensities, the reality of obtaining all nutrition from foods alone will dictate the needs for protein supplementation. The timing and nutritional content of the post-exercise meal, although often overlooked, are known to have synergistic effects on protein accretion after exercise. New evidence suggests that individuals engaging in strenuous activity consume a meal rich in amino acids and carbohydrate soon after the exercise bout or training session. In addition to this, pre-workout feedings have been demonstrated to show a greater net effect on skeletal muscle protein synthesis over and above that of post-exercise feedings.

Nutrient Timing :

Meal timing and type is important for the athlete and their nutritionist to be aware of. A recent study found that performance of moderate- to high-intensity exercise lasting 35–40 min is improved by consuming a moderately-high carbohydrate, low fat, low protein meal 3-hr before exercise compared to a similar meal consumed 6 hr prior to exercise. Thus, athletes should not skip meals before competition or training sessions. However, one should note that while research used exercise duration of about 40 minutes, some of our athletes exercise or compete for hours at a time. In this case, meal timing, snacking, and appropriate liquid supplementation during exercise becomes of paramount importance.

Meal timing has also been shown to have an effect on muscle protein synthesis (MPS). Affecting MPS may allow the downstream creation of new muscle mass (lean body mass). Recent data indicate that consuming a small meal of mixed macronutrient composition (or perhaps even a very

small quantity of a few indispensable/essential amino acids) immediately before or following strength exercise bouts can alter significantly net protein balance, resulting in greater gains in both muscle mass and strength than observed with training alone. With aerobic exercise, some evidence suggests immediate post-exercise (but perhaps not pre-exercise) supplementation is also beneficial. Second, protein type may also be important owing to variable speeds of absorption and availability, differences in amino acid and peptide profiles, unique hormonal response, or positive effects on antioxidant defense. In addition to athletes, many others who desire to regain, maintain, or enhance muscle mass or function, including those with muscle-wasting diseases, astronauts, and all of us as we age, need to ensure that nutrient availability is sufficient during the apparently critical anabolic window of time associated with exercise training sessions. The additional data compiled from the cumulative studies examining the effects of low dose essential amino acids with or without carbohydrate (sucrose) indicate that the prudent use of supplemental protein may be the easiest way to augment the MPS response post-exercise. Since post-exercise carbohydrate intake alone does not affect MPS, but essential amino acids do, there is much more to learn about post-exercise nutrition. Future studies are needed to fine-tune these recommendations.

Is a Sugar a Sugar?

Recent popular press literature has been noted for promoting the pentose, ribose as a dietary supplement. In fact, many patents and patent-pending filings exist for the uses of ribose in athletics and medicine. Ribose is a carbohydrate, or sugar, used by all living cells and is an essential component in our body's energy production. The company who holds the ribose patents claims the following on their website: "Ribose is essential in helping the body restore its cellular energy level. The cells use ribose to convert nutrients in ATP, so it makes sense that more ribose means more ATP production. Research shows that ribose increases ATP production in both fast-twitch and slow-twitch muscles by 3.4 to 4.3 times. The catch is, the body only has so much ribose at any one time, and there's no food source that increases the body's ribose level. The good news is that supplemental ribose does just that. Weight lifters; sprinters; football, basketball and soccer players; triathletes; cyclists and other athletes requiring sudden high-energy bursts may benefit from supplemental ribose. Energy recovery in muscle cells during and after strenuous high-intensity exercise is enhanced with ribose supplementation. Ribose increases both *de novo* (new) synthesis and salvage of nucleotides in heart and skeletal muscle. Research conducted by Bioenergy and others suggests that even low doses of ribose will have an effect on energy recovery following high-intensity exercise. Maintenance doses as low as two grams per day will increase recovery of lost nucleotides by increasing *de novo* synthesis and salvage of nucleotides that are in danger of being lost due to strenuous activity. Further, there appears to be a functional benefit of ribose loading prior to a high-intensity event. Bioenergy continues to investigate this effect."

Published research in peer-reviewed journals does not support the hyperbole behind the purported use of ribose. It should be noted that oral D-ribose supplementation has been reported to increase adenine nucleotide synthesis (TAN) and exercise capacity in certain clinical populations. Increasing TAN, may cause the downstream increase in ATP production during times of stress. Analysis of uses in anaerobic exercise and during sprint cycling from recent published studies does not support the use of ribose for athletes. More research is needed to determine if there is an applicability of ribose within athletic protocols.

Help the ISSN Develop the Future of Sports Nutrition :

The future of sports nutrition will dictate that we collectively will have to have a higher standard of care and education for counseling athletes, whether individually or in groups. The integration of many different disciplines (physiology, metabolism, psychology, etc.) will become a minimum mandatory set of disciplines for any aspiring sports nutritionist. A standardized certification is also expected to be available to Registered Dietitians and Ph.D.'s (in related areas) within the next

two-years, this certification will help the public to decipher the true sports nutritionist from the one who has read many popular press articles and has not been exposed to the same educational rigor as others. The International Society of Sports Nutrition (ISSN) is currently working on this certification. We are in an era of unprecedented growth and the new knowledge is evolving. This exciting time that we live in can be driven further by all of us sharing our passion to help others while being open minded to the discoveries that await us. Please share your stories, research and life experiences with us.

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A Relationship Study on Performance of Intervarsity Women Middle Distance Runners with their Body Proportionality

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Abstract :

Introduction: Track & field consist of running, hurdling, jumping and throwing events held between individuals and teams at indoor and outdoor meets. The running and hurdling competitions make up the track events, while the jumping and throwing contests comprise the field events. Anthropometrical characteristics play a very vital role in all games and sports whether it is team or individual game, ideal body segments as per the demand of the particular event is necessary for higher achievement in that particular sport. The purpose of the study was to correlate the body proportionality with the performance of middle distance women runner.

Materials and Methods: For this study there were 50 middle distance women intervarsity runners were selected from the all India intervarsity and Maharashtra state. The product moment correlation was applied on gathered anthropometrical and performance of distance.

Results: Results of the study revealed that positive as well as negative correlation of body proportionally with the performance of middle distance women runners.

Key Words: Anthropometrical: Sitting height-Stature index, Ponderal index, Thigh length-Lower leg length index, Upper arm length-Lower arm length index.

Introduction : At present, track-and-field consist of running, hurdling, jumping and throwing events held between individuals and teams at indoor and outdoor meets. The running and hurdling competitions make up the track events, while the jumping and throwing contests comprise the field events. In many countries the sports as a whole is called athletics. Running races are the most prominent track events, the range in length from the indoor 50 meter dash to the outdoor marathon.

The first organized track-and-field meet that is called Olympic Games began in 776 BC in Greece. Coroebus, who won the first sprint competition, was regarded as the first Olympic champion. For many years the main Olympic competition was the pentathlon, which consisted of discus, javelin, foot racing, long jumping and wrestling. Other contests, including foot races for men clad in full armor, later joined the games. Notwithstanding, the Roman conquest of Greece in 146 BC, Olympic contests continued to be held for more than 500 years. But the Roman emperor, Theodosius I, discontinued it in 393 AD; because, he treated the Olympic contests as a pagan activity. For eight centuries thereafter, no organized track-and-field competitions occurred.

The uncovering of the ancient athletic site at Olympia and the knowledge gathered from various books relating to the inspiring history of the ancient games influenced the intellectual circle of the world in the 19th century. At this time, it was felt that bringing together of youth, in the spirit of ancient Olympic competitions, would not only contribute to the development of healthy youth, but also lay a foundation of peace in the world.

The credit of reviving the ancient Olympic Games goes to a French Baron, Pierre de Coubertin, who was born in Paris on 1st January 1863. As a young man, Coubertin had refused careers in literature and history. He had chosen to work in the field of sociology and education. He believed that intelligence cannot exist without training of the body. For this reason, he was a great admirer and propagator of school sports. Due to this effort, the first inter-school athletic games were held in Paris in 1889. This was his first step in the direction of revival of Olympics on an international level. According to Prof. Carl Diem of Germany, it was the love of peace and respect for life that drove Coubertin to the idea of reviving the Olympic Games. Coubertin, due to his untiring efforts, succeeded in organizing a "Congress" on 23rd of June 1894 that decided to revive the ancient Olympic Games from the soil of their birth i.e., Greece in 1896. Thus Coubertin had won at last. It was in 1896 in the stadium at Athens (Greece) that the first Olympic Games of the modern era were held.

Middle Distances :

Middle-distance events include "races" of 800, 1500 and 3000 meters. Middle-distance runners use a combination of speed and endurance. They must stay in competition but also regulate their speed carefully to avoid tiring too quickly. Some middle-distance runners change their speed several times during the race, while others maintain an even pace throughout the race. Nurmi, who dominated track and field in the 1920, carried a stopwatch during races as a means of checking on his pace. An important element of middle distance races is the kick, a sprint for the finish line on the last lap. Running form for middle-distance event greatly differs from that of sprints. Knee action is much less pronounced, the stride is shorter and the forward lean is less extreme in middle-distance events.

It is important to note that in contemporary India the choice of sports is determined by the child's interest, facilities available and popularity of the sports in that particular society, but it is immaterial whether, his body structure is fulfilling the mechanical requirements of the game or not. If he chooses a wrong activity for which his body structure is not suited a limit is set beyond which, his performance cannot be improved, however, hard he and his coach may try.

However as man develops from birth to maturity some of the most observable changes in his body are those of his physical characteristics - his height, weight, shape and proportions. The patterns of growth of these characteristics result from the interaction of both inborn (genetic) and environmental factors, which are responsible for the performance of a sportsman. The physique and body composition including size, shape and form are known to play a significant role on the performance of an athlete. The performance of a sportsman in any game is also dependent on his suppleness, skill, training and motivation and on various other factor of physiological and bio-chemical nature. Age, sex and physical growth have also been noticed to influence a person's capacity for physical activity.

Cureton (1941) stated that in general, people with long legs and long arms and relatively short and small trunks were physically weak in long sustained heavy work, but they might show great speed and endurance at high levels of athletic activity. Long third - class levers are noted for speed and range of action as well as for their efficiency for force.

Dyson (1986) stated that the running speed is the product of length and frequency of stride, their ratio changing from one phase of a race to another and from athlete to athlete yet these two factors are always interdependent and maximum running efficiency exists only when they are in correct proportion, depending mainly on the weight, build, strength, flexibility and co-ordination of the runner. In contradiction to Prof. A.V.Hill's original hypothesis, that the fastest time for a given middle or long distance could be attained by running at a constant speed, some physiologists have since suggested that the second half of such races should be run faster than the

first, with the athlete conserving his anaerobic i.e. oxygen debt reserves until comparatively late in the race.

Tanner (1964) is of the opinion that a person using many smaller strides uses more energy over a given distance than a person using fewer and longer strides (provided the long stride spring naturally from his physique and are not artificially imposed)

Thus Anthropometrical characteristics play a very vital role in all games and sports whether it is team or individual game, ideal body segments as per the demand of the particular event is necessary for higher achievement in that particular sport. In view of anthropometrical variations playing a significant role with performance of an athlete. Let us discuss certain important aspects associated with it.

Body Proportionality:

The relationship of length to width, height to thickness, length-to-length etc. of various parts of body represents proportions. This importance of proportion becomes evident, when we want to compare particular body parts of two persons who are otherwise different in over all size. The proportions or ratio keeps one measurement constant in all subjects compared and evaluate the differences in the other measurements.

Thus purpose of the study was to find out the relationship between the body proportionality with the performance of the middle distance women runners.

Procedure :

Retrieving the objective of the study following procedure will be applied. The product moment correlation was applied to see how the variable correlated with the performance of middle distance intervarsity women runners.

Selection of Subjects:

For the purpose of the study 50 Indian male middle distance runners were selected from.

- Twenty five subjects were selected from 72nd All India inter-varsity athletics competitions on 21st December 2011 held at Swarajya Maidan, Moodbodari, Karnataka.
- Twenty five subjects were selected from state and SAI sports hostels of Maharashtra.

Sample:

For the purpose of this study two sample groups were formed. 1st group comprises of 25 female 800 m runners, 2nd group comprises of 25 female 1500 m runners.

Criterion Measures and Collection of Data:

Recording the variables as given below shall consist data in the form of various criterion measures selected for the study.

(1) Proportionality in ratings.

The following indices were used to determine various body proportions.

$$(i) \text{ Sitting height-Stature index} = \frac{\text{Sitting height}}{\text{Stature}} \times 100$$

$$(ii) \text{ Ponderal index} = \frac{\text{Stature}}{\sqrt[3]{\text{Weight}}}$$

$$(iii) \text{ Thigh length-Lower leg length index} = \frac{\text{Thigh length}}{\text{Lower leg length}} \times 100$$

$$(iv) \text{ Upper arm length-Lower arm length index} = \frac{\text{Upper arm length}}{\text{Lower arm length}} \times 100$$

Statistical Procedure:

Reiterating the objective of the study we have to point out that we intend to investigate the correlation in anthropometrical variables and performance of middle distance runners of India for that the product moment correlation was used.

Analysis of Data And Discussion of Findings

In this chapter analysis of data along with discussion of findings for each of the chosen variables of intervarsity female middle distance runners is presented. The product moment correlation was applied to see how the variable correlated with the performance of middle distance intervarsity women runners.

Table -1

The correlation between 800m and 1500m women middle distance runner’s **Sitting height-stature index** and performance.

Events	800 m Runners	1500m Runners
Correlation ship	-0.038638164	0.193768846

The table shows a Negative correlation ship between the Sitting height-stature index of the 800 m. women middle distance runner’s **(-0.038638164)**, where as Positive correlation ship was observed between Sitting height-stature index of 1500 m women middle distance runner’s **(0.193768846)** with their performance.

Figure-1

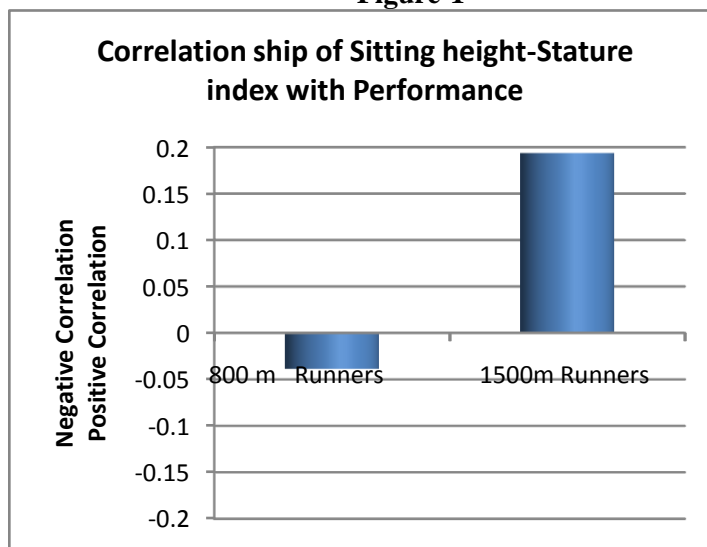


Table -2

The correlation between 800m and 1500m women middle distance runner’s **Ponderal index** and performance.

Events	800 m Runners	1500m Runners
Correlation ship	0.23348847	-0.113839459

The table shows a Positive correlation ship between the Ponderal index of the 800 m. women

middle distance runner's (**0.23348847**), where as negative correlation ship was observed between Ponderal index of 1500 m women middle distance runner's (**-0.113839459**) with their performance.

Figure- 2

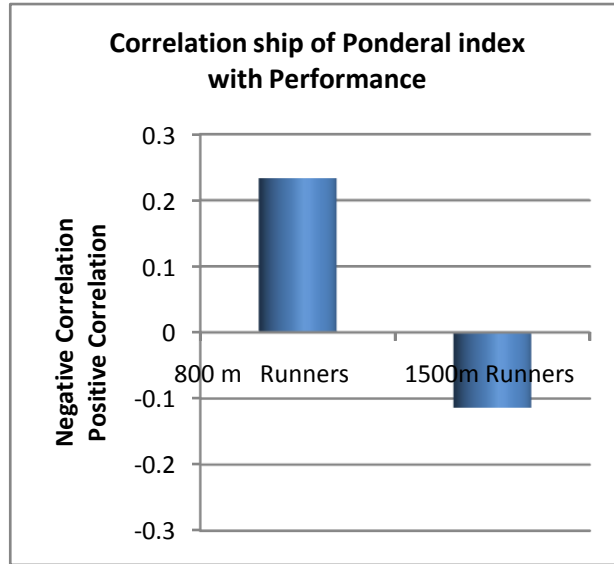


Table -3

The correlation between 800m and 1500m women middle distance runner's **Thigh length-lower leg length index** and performance.

Events	800 m Runners	1500m Runners
Correlation ship	0.155570789	-0.368322533

The table shows a Positive correlation ship between the Thigh length- lower leg length index of the 800 m. women middle distance runner's (**0.155570789**), where as negative correlation ship was observed between Thigh length- lower leg length index of 1500 m women middle distance runner's (**-0.368322533**) with their performance.

Figure -3

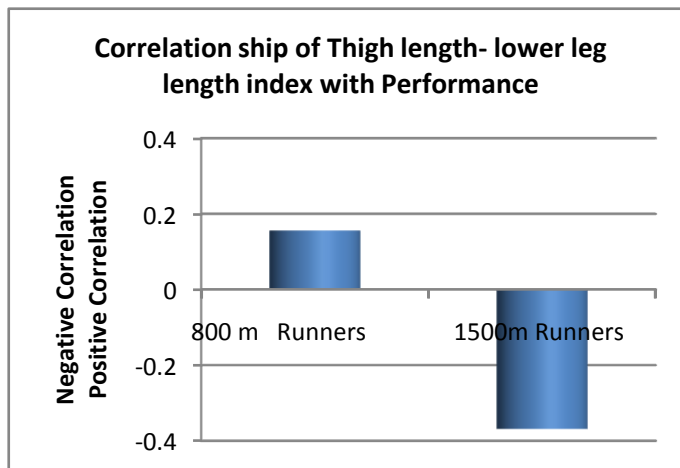


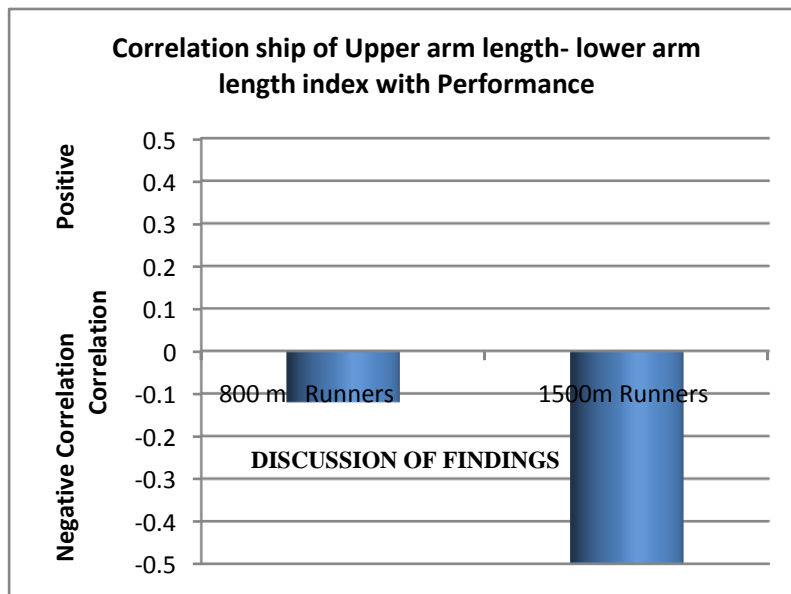
Table 4

The correlation between 800m and 1500m women middle distance runner's **Upper arm-Lower arm Length index** and performance.

Events	800 m Runners	1500m Runners
Correlation ship	-0.120185007	-0.499281366

The table shows a negative correlation ship between the Upper arm- Lower arm Length index of the 800 m. women middle distance runner's (**-0.120185007**) and 1500 m women middle distance runner's (**-0.499281366**)with their performance.

Figure -4



Here we are discussing our findings in light of studies carried out by other researchers. We are also discussing the probable implications of the observed significant relationship in the anthropometrical variables with the performance of middle distance runners.

Sitting height – Stature index:

The result has shows a Negative correlation ship between the Sitting height-stature index of the 800 m. women middle distance runner's (**-0.038638164**), where as Positive correlation ship was observed between Sitting height-stature index of 1500 m women middle distance runner's (**0.193768846**) with their performance.

The greater Sitting Height –stature index hinder the frequency of stride which also a cause of higher center of gravity and lesser the speed of stride in 800 m. Where as the sitting height-stature index runners of 1500 m runner need longer strides with medium frequency.

Thus the sitting height-stature index of 800m is negatively correlated whereas positively correlated with performance of 1500m runners.

Ponderal index:

The result shows a Positive correlation ship between the Ponderal index of the 800 m. women middle distance runner's (**0.23348847**), where as negative correlation ship was observed between Ponderal index of 1500 m women middle distance runner's (**-0.113839459**) with their performance.

The weight with proportionate height signifies the greater the momentum of the 800m runner. Where as the same variable is disadvantageous for 1500m runner whose need the smoother movement with longer stride.

Kohlrausch (1929) carried out a study on the athletes who participated in the 1928 Olympic Games at Amsterdam and observed that the middle distance runners averaged weight / height index was greater than long distance runners.

It will then become evident that long distance runners' weight will be the lighter. On the one hand this indicates the importance of a favorable weight strength ratio but on the other hand shows that running performances depend mainly on the function of potentials and not so much on strength produced by actual muscle volume.

Thigh length – Lower leg length index:

The result of our study shows a Positive correlation ship between the Thigh length- lower leg length index of the 800 m. women middle distance runner's (**0.155570789**), where as negative correlation ship was observed between Thigh length- lower leg length index of 1500 m women middle distance runner's (**-0.368322533**) with their performance.

Amar (1920) also observed similar results and pointed out that short heavysset people are remarkably strong and good weight lifter. The "grasshopper" type with relatively long legs (particularly fore legs) marks good jumper, runners, vaulters and hurdlers.

Running permits the body to float in the air between strides, with both feet off the ground approximately half the time. Thus the runners' strides can be considerably longer than the length of the legs. In theory, an increase in either stride length or stride frequency will increase a runner's speed. However, each of these factors has such an effect on the other that when increasing one and reduces the other enough to produce a slower speed. There is the direct relationship between leg length and both stride length and stride frequency. A sprinter with short legs has naturally shorter strides, which brings the foot back to the ground sooner than if the stride was longer. Generally, shorter the leg, shorter the stride and greater the frequency.

Upper arm length – Lower arm length index:

The findings of our study shows a negative correlation ship between the Upper arm- Lower arm Length index of the 800 m. women middle distance runner's (**-0.120185007**) and 1500 m women middle distance runner's (**-0.499281366**)with their performance.

The greater the arm length a cause of greater body which is not much supportive during running action.

Thus our findings are setting guideline for coaches and up- coming athletes for comparing their Anthropometrical structure with the middle distance female runners of our country. If their structure is inline with the high performers then they may also achieve their status, subject to the optimization of other factors.

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Cardiovascular Problems and their Prevention through Physical Education

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Introduction :

As we see in day to day life there are tremendous explosive conditions facing due to cardiovascular problems.

Most of deaths are attributed to non-communicable diseases and just half of these are as a result of cardiovascular diseases, more than one third of these deaths occurred in middle aged adults.

The incidence of cvd is gretter in urban areas than rural area due to several risk factors such as Tobacco Consumption, lack of physical activity, unhealthy diet and obesity.

A) Severity of cardiac problems

In world 1.7 crore peoples died due to Heart Attack and half of them are Indians .

According to Indian Council Of Medical Research study, 25%of peoples of age 25 to 69 are suffering from heart diseases and 40% of them are expired before treatment in India.

B) Types of cardiovascular diseases

CVD are the group of diseases of diseases of heart and vascular system these major conditions are

1)Congenital heart disease

Means the cardiac problems started with birth of baby these problems are a) Atrioseptal defect (ASD) b) ventrioseptal defect (VSD)

2) Rheumatic heart disease

Means heart problems are associated are associated with joint involvement, fever, and streptococcal throat infection these problems are

(a) Mitral stenosis

(b) Mitral regurgitation

3) Ischaemic heart disease

In such type of diseases the insufficient supply of blood to heart is occurred.one of the most dangerous condition “ **Heart Attack**” . So that the heart attack is the insufficient supply of blood to heart due blood clots, cholesterol plaques.

C) Causes of Heart Diseases

There is no specific cause of heart disease. The causes are based on risk factors which are studied from Framingham study.

1)Uncurable Factors

1) Age- as age grows the chances of heart attack are more

2) Sex- Males are more susceptible to heart disease than female before menopause.

3) Hereditary- Genetic factors are responsible for hereditary cause

2) Strongly affecting and complicative factors

a) HTN (High blood pressure)

b) Diabetes

These two factors are more explosive and complicated to cause HEART Attack that s why are called as **silent Killer**.

3) Obesity

Obesity means the abnormal growth of adipose tissue due to enlargement of fat cell size or

number, it is often expressed by Body mass Index. Normally it is between 18- 25 and above 25 are called as obese person. It may cause hypertension and risk of Heart Attack.

4) Triglycerides

Specially saturated fats like ghee, Butter, milk, cheese, eggs, groundnut oil, etc. leads to High Blood Pressure and also increases the chances of heart attack. Normally it should be below 150.

5) Cholesterol

Low density lipid and high density lipids are most important type of Cholesterol. Normally LDL should be below 100 and HDL should be above 50 in males and above 40 in females. Higher level of LDL and low levels of HDL are more dangerous to heart.

6) Tobacco, Smoking, Alcohol drinking sedentary life style, no physical activity are the supportive and life threatening causes of heart disease.

7) One another cause which is very dangerous is "Mental Stress", it occurs due to fast and competitive life style.

E) Solution for cardiovascular diseases

With the help of systematic ways we can easily control the cardiac problems.

- 1) Health awareness and education towards major cardiac diseases is the first way.
- 2) Prevention by primary as well as secondary ways.

Primary prevention

a) Controlled and Balanced diet

- 1) Avoid saturated fats (ghee, butter, coconut oil)
- 2) Use of unsaturated fats like sunflower oil, corn oil, Soyabean oil, cod liver oil (fish oil)
- 3) Increase the intake of dietary fibers like vegetables, fruits and grains.
- 4) Reduce the intake of salt i.e. [below 5gm per day.]
- b) Avoid alcohol consumption, smoking, tobacco.
- c) Regular physical activity leads to fall in body weight, raised B.P. raised level. Exercises increase the cardiovascular endurance and maintain the Bodymass index.
- d) Reduce the mental stress with the help of yoga, Meditation and Modification of personal life style.

Exercises to increase cardiovascular endurance

Walking Exercises –Every person suffering as well as non suffering from these cardiac problems must have to do the walking exercise.

Walking gives strength to heart and increases efficacy of heart pumping. That's why walking increases the cardiovascular endurance. Every morning half to one hour walking helps for proper functioning of heart.

Proper warm up and cooling down exercises to attend any physical activity by avoiding very heavy and explosive activity.

Test to measure Cardiovascular Endurance

- 1) 12 minute Run And Walk Test or 1 Mile Run and Walk Test
- 2) Harvard Step Test

YOGA AND MEDITATION TO PREVENT STRESS INDUCED CARDIAC PROBLEMS

YOGA gives us strength to mind as well as heart.

YOGA maintains proper balance of body.

YOGA reduces stress as well as abnormal thinking.

YOGA increases Concentration level.

YOGA improves human's personality by following steps.

1.SATYA 2.ASTEY 3.APARIGRAHA 4.ASANA 5.DHYAN 6.DHARANA 7.SAMADHI.

Secondary prevention :

The goal of secondary prevention is to detect cardiac illness as early as possible and control

the associative cardiac problems in affected individuals

With the help of routine health check up (EcG,2D Echo., B.S.L.), we can easily detect major problems and with regular drug therapy we can effectively reduces the risk of morbidity and mortality from cardiovascular diseases.

Conclusion :

With the help of awareness of health situation, early detection of hazardous illness and preventive measures are three main effective ways to solve the dangerous cardiovascular problems.

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‘Table Tennis: An Unsung Sport in Games & Sports’

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Dr. Balwant Singh: Research Guide, JJT University

Abstract:

There are many sports & games played by various countries at international level, national and regional levels and every sport has its own specialty & importance. Table Tennis is one of them. Today, Table Tennis which is one of the in-door games is one of the most popular games & is played all over the world with 215 countries affiliated to the International Table Tennis federation. The most importance aspect of this game is it is an injury free sports being a combat sport with equipment. Talking about the performance in India almost all states & union territories participate in the National Championship .We do take part in Asian & Olympic Competitions but, the Indian table tennis players have been struggling hard to exhibit their talent at the important international events. Lack of major success at the international stage has resulted in stagnation and the popularity of the game. There are various hurdles in improvement of the game which can be overcome with Support from all corners. We need professional approach towards the sport for its improvement.

Data source has been collected from various publications and websites

Introduction:

‘Recreation’ in any form is one of the fundamental aspects of life as every individual whether small or big in age or profession experiences fatigue, in their daily routine work. ‘Recreation’ to relax and refresh is therefore necessary for every individual to live a happy and healthy long life. Playing sports is one form of recreation. Various sport games are thus available to suit the age, gender and capital requirements.

‘Sports’ is the word derived from Latin word ‘de Sporte’, means carrying away from work. Sports, Game and Play is an ideal way for relaxation and entertainment, as it improves Physical fitness and functioning capacity of various systems of the body.

Though it should be confined to recreation, in modern days, especially after second world war which caused great human & property destruction, it was felt necessary by all the countries that sports should be promoted at international level so that the competitiveness in control situation will increase goodwill among the countries & will develop harmonious relations between nations leading to reduction in war & loss of lives and property due to destruction.

Therefore sports & games got a huge lift after Second World War in the form of Olympic movement & World Championship. Later the Amateur Sports got transformed into Professional Sports. Today, it is a huge industry which gives tremendous job opportunities & is ambassador for good health & peace. There are many sports & games played by various countries at international level, national and regional levels and every sport has its own specialty & importance.

Table Tennis is one of them. Today, Table Tennis which is one of the in-door games is one of the most popular games & is played all over the world with 215 countries affiliated to the International Table Tennis federation. It is one of the dynamic sports which improves reaction time and demands for the consistency.

Historical Perspective:

India was not only a founder-member of the International Table Tennis Federation but took part in the inaugural World Championships held in London in 1926. The Table Tennis Federation of India was formed in 1937 in Calcutta with four State Associations affiliated to it. Sir T.D Ranga Ramanujan: 'T.D.R' as he was called, played an important role to strengthen the federation. World championship was held at Bombay in 1952 for the first time in Asia. Table tennis in India has come a long way from being an after-dinner amusement to a professional sport. Right from it was brought to India by the British; the game has witnessed a number of changes in terms of its promotion and

management. However, despite having one of the most efficient administrative bodies in country, the game has failed to produce excellent talents.

India and its Performance:

Talking about the performance in India almost all states & union territories participate in the National Championship & then the Indian Team is selected which in turn participates in various International Competitions & World Championships as well. We do take part in Asian & Olympic Competitions but, the Indian table tennis players have been struggling hard to exhibit their talent at the important international events. Lack of major success at the international stage has resulted in stagnation and the popularity of the game has nose-dived in comparison to games like cricket and tennis. At the team level, India's most cherished performance has been the World Championships in Gothenburg, where it was placed at the 12th position.

The fact that even in the midst of such sustained mediocrity, India has played host to three World Champions is a tribute to the organizational efficiency present in the game. Moreover, table tennis has been one of the few games to find favor with institutional organizations like oil companies and banks. The game continues to feature at the competitions held by school, universities and other institutions, wherein it has achieved reasonable popularity.

In order to improve Table Tennis performance level there is paucity of funds and research activities thus lacking evidence. Therefore it is important and necessary to investigate reasons for failures and suggest various measures for increasing performance level up to the mark of Table Tennis Players.

Over 215 countries & almost all states & union territories participate in Table Tennis. It can be played throughout the year being an indoor sport; it can be played by people of all age groups starting from 4 years till any age depending upon your physical fitness.

The most importance aspect of this game is it is an injury free sports and it improves reaction time, increases concentration & motor ability, but yet the sad part of it is, it has very less popularity worldwide and lacks support.

Support System for Sports: It is important to note that the sport needs strong support from all the corners of society, institutions and administration so as to develop it as a major competitive, recreational or fitness sport, as it is well accepted universally that playing sport is the best way of recreation to maintain relations & develop fitness.

At Family Level: Family of a player should encourage their child by supporting him with necessary and appropriate diet, equipments & increase his moral during low times in competitions so that they can further actively participate in the sport to gain confidence.

At Institutional Level: These can be in the form of Clubs /school/college/ universities. Institutions should support a player with all types of necessary concessions, financial aid, sponsorships, organizing of events (Competition) so as to facilitate their participation in various competitions at different levels , besides arranging for coaching camps.

Government:- Government should increase quota in its placements & also provide regular financial assistance to Players to participate in international & national competitions, Arrange coaching camps & competitions, give awards, increase number of scholarships and Grace Marks at Academic's for all sports, provide more and free medical facilities and Insurance cover etc.

Hurdles in Table Tennis:

This is necessary because there is lack of infrastructure, servicing and maintenance factor; lack of consistency in organization of competitions at various levels and at different places; Unbiased & correct selection procedures; lack of scientific training methods; lack of research in training methods, lack of enthusiasm of players & people, professionals and Association members. All these factors together affect the popularity and performance levels of any game, of which table tennis if one of them. It is therefore imperative to strengthen the game by adopting concrete measures and

concerted efforts in this direction. Following are the some of the remedial measures that needs to be undertaken and implemented.

Remedies for Improving Performance Level of a Player in Table Tennis Sports:

- 1] Professional approach towards the game as recreational, fitness & competitive sport.
- 2] Means of survival in the form of job or fixed remuneration to the professionals who are involved in it as Players, Coaches, Organizers, and Referee & Umpires.
- 3] Consistent organizing competitions & coaching camps at different places, at various levels and for different groups.
- 4] Advertisement.
- 5] Tax Benefits to sponsorers.
- 6] Creating awareness among the players & people.

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“भारतीय समाज और पानी की नियोजन योजनाएँ”

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संक्षिप्त सार :

भारतीय नागरिक को उसकी आवश्यकतानुसार शुद्ध जल मिलना उसका अधिकार है,। क्योंकि पानी मनुष्य जीवन के लिए आवश्यक घटक है। सभी सजीवों के लिए पानी आवश्यक है। इसी तरह खेती के लिए भी पानी महत्वपूर्ण है। भारत देश में पानी की अपव्ययता देखते हुए केंद्रशासन ने मई २००१ में जल गुणवत्ता मुल्यांकन प्राधिकरण की स्थापना किया। यह प्राधिकरण जलसंपदा मंत्रालय के अंतर्गत कार्यरत है। भारत देश में प्रत्येक राज्य में जल गुणवत्ता पुनरावलोकन समितिओ की स्थापना करके जल स्रोत की शुद्धता और गुणवत्ता सुधारने के लिए तज्ञ व्यक्तियों की नियुक्ति की गई है। शासन ने बारबार किये हुए नियोजन में सन २००२ के राष्ट्रीय जल संधारण का नियोजन किया इस एकात्मिक जल स्रोत विकास और व्यवस्थापन के लिए देश में केंद्रीय जल आयोग (Central Water Commission) यह संस्था सन १९४७ से कार्यरत है। केंद्रीय जल आयोग के अध्यक्ष भारत सरकार के भुतपूर्व सचिव रहते हैं।

प्रस्तावना :

भारत में पानी का नियोजन अच्छी तरह होने के लिए, पानी किसी भी तरह से बरबाद न हो इसलिए भारत सरकार ने बारबार जल योजना का नियोजन किया है। इसमें क्षेत्रीय नियोजन पानी मांग Hej (Demand) व्यवस्थापन, योजनाओंका तांत्रिक परीक्षण, कुछ विशिष्ट प्रकल्पोओं को केंद्रीय सहायक प्रकल्पो का समन्वय, बाहय आर्थिक मदतों की व्यवस्था आंतरराज्य जलविवादों को मिटाते हुऐ, छोटे बडे प्रकल्पों द्वारा लाभ क्षेत्रो का विकास करना, पानी का उपयोग करने वाले खाजगी क्षेत्रों का सहभाग, पर्यावरण पर होनेवाले परिणाम और पानी का उपयोग करने वाली संस्थाएँ और व्यक्तियो का सहभाग होता है। भारत में प्रतिवर्ष कम से कम १८६९ अब्ज घन मीटर पानी उपलब्ध होता है। इसमें सिर्फ ११२३ अब्ज घन मीटर पानी उपयोग के लायक होता है। इसमें भुपृष्ठ के उपर ६९० और भुगर्भ में ४३३ अब्ज घन मीटर पानी का वर्गीकरण किया गया है। पंचवर्षीय योजनाओ में केवल २.२६ करोड हेक्टेयर इतना सिंचन क्षमताएँ निर्माण हुयी थी। आगे इसी पानी का अच्छी तरह से नियोजन किया गया। दसवी पंचवर्षीय योजना में १०.२८ करोड हेक्टेयर सिंचन क्षमता पर पहुँच गये। सिंचन क्षमता ५०० वर्ष में पाच गुना बढ गयी। हर प्रकल्पो को केंद्रीय जल आयोग की मान्यता की मजूरी लेना महत्वपूर्ण होता है। क्योंकि भू भाग के पानी काबटवारा अच्छी तरह से होने के लिए केंद्रीय जल आयोग यह संस्था सन १९४५ से कार्यरत है। इस संस्था के तीन विभाग होते है। १) संकलन और संशोधन २) जलनियोजन और प्रकल्प ३) नदीव्यवस्थापन देश के सभी राज्यों से विचार विनिमय करके अलग-अलग राज्यों की बाढ नियंत्रण और लोक निर्माण जल उपयोग केंद्र और पेय जल योजनाओं का विकास करने का उद्देश्य इस संस्था का होता है।

केंद्रीय जल आयोग के अध्यक्ष सरकार के सचिव होते हैं। मुख्य सचिव के अधीनस्थ संचालक अधीक्षक इनकी संचालनालये में रहते है। इस जल योजना के अंतर्गत प्रादेशिक कार्यालय में ३२ संस्थाये और १४७ संचालनालये रहते है। इस जल आयोग के प्रादेशिक कार्यालय, बंगलौर, भोपाल, भुवनेश्वर, चंडीगड, कोयम्बतुर, दिल्ली हैद्राबाद, लखनऊ, नागपुर, पटना, शिलांग, सिलीगुडी और गांधीनगर इस स्थानों पर हर कार्यालय का प्रमुख अभियंता रहता है। यह सब कार्यालय सम्बंधित राज्यों से जुडी रहकर सब प्रकारके बडे मध्यम, लघु प्रकल्प, उनका मुल्यांकन, लाभ क्षेत्र विकास पुनर्वसन और पानी संस्थाओं के पुनर्विकरण, जलव्यवस्थापन के कार्य, बाढ नियंत्रण, पानी निरीक्षण इ. कामो से सम्बंधित है। उनके काम नीचे लिखे हुये है।

१. नदी क्षेत्रों का विकास करने के लिए लोक निर्माण, बाढनियंत्रण, पर्यावरण व्यवस्थापन, जलापूर्ति जैसी नई योजना का सर्वेक्षण और अन्वेषण का काम हाथ मे लेना।

२. केंद्र और राज्यशासन की ओर से नदी क्षेत्रों विकास योजनाओं का निर्माण कार्य हाथ में लेते हैं।
३. विशिष्ट भाग। प्रादेशीक योजनाओं के लिए नदी क्षेत्रों का अन्वेषण, सर्वेक्षण इस काम में मदद करना और अंतर्राज्यीय जल विवाद में मार्गदर्शन करना।
४. अनेक राज्यों में जलयोजनाओं के पानी बटवारे के अधिकार और विवाद इस बात पर मार्गदर्शन देना।
५. जलसंपदा और उनके उपयोग के बारे में संपूर्ण देश में पानी की शुद्धता, सांख्यिकी आकड़ा जमा करना और उसकी जानकारी देना।
६. भारत के अभियंता को नदियों के विकास विषयक प्रशिक्षण देने के लिए व्यवस्था करना।
७. हमेशा विकास करने के लिए प्रकल्प संबंधित, सामाजिक, आर्थिक और पर्यावरण विषयक बातों का अभ्यास करना।
८. सुरक्षा सबन्धित और नदी किनारों को मृदा विषयक समस्या पर केंद्र और राज्यशासनों का बांध विषयक सलाह देना, तथा मार्गदर्शन करना।
९. देश के अंतर्गत रहनेवाली जलसंपत्ति के विषय में समाज को जागृत करना, इ.

भारत के बाढ़ परिस्थिति विषयक शास्त्रीय तरीकों से ^६ अभ्यास सन १९५८ से शुरुवात हुई। जलआयोग ने इसमें प्रमुख अंतर्राज्य बाढ़ क्षेत्रों का समावेश किया। ऐसी बाढ़ अंदाज केंद्रे १७५ है। यह सब केंद्रे ०९ बड़ी नदियाँ, १५ राज्य और ७१ नदी क्षेत्रों के बाढ़ परिस्थितिओं की जानकारी इकठ्ठा करते हैं। इस कारण बाँधों की संभाव्य धन और जन हानि से बच सकते हैं। बाढ़ अंदाज के यंत्रों का अच्छी तरह से आधुनिकीकरण जलआयोग ने किया है। बाढ़ के खतरो से करीब १०६०० वर्ग किमी क्षेत्रों का बाढ़रेखांटन (Food Mapping) शुरु है। उनमें बिहार, असम, पश्चिम बंगाल, पंजाब, हरियाणा उत्तर प्रदेश और जम्मू काश्मीर इनमें ५५००० वर्ग किमी क्षेत्रों का सर्वेक्षण आराखडा किया है। नदी उद्गम, प्रवाह, बहाव में परिवर्तन, चढ़-उतार, किनारों के अवसाद, इन सबका दसवी पंचवर्षीय योजनाओं में कोसी, गंडक, ब्रम्हपुत्र, घाघरा सतलज, गंगा, अलाहाबाद से बक्सर इस नदियों की हालत को देखते हुए यंत्रों द्वारा (Remote sensing techniques) अध्ययन करने के लिए चुना गया है। ग्यारहवीं पंचवर्षीय योजना कुछ पुरानी नदियाँ और १६ नयी नदियाँ इनकी उपनदियों का जल क्षेत्र संशोधन और विकास कार्यक्रम में संशोधन करनेवाले हैं। राष्ट्रीय जलालेख कार्यालय के (National Hydrographic Office) अनुसार भारतीय किनारों के ७५१६ किमी यह पूरी लंबाई में से १३८० किमी किनारों की अलग-अलग प्रकार से जमाव हुआ है। केंद्रीय जल आयोगने प्रायोगिक तत्वों के अनुसार नये तंत्रज्ञान का उपयोग करके किनारों के क्षेत्र कम करनेका काम हाथ में लिया है।

केंद्रीय वन और पर्यावरण मंत्रालय ने ^८ जल गुणवत्ता पर जोर दिया है। इस कारण पर्यावरण संरक्षण कायदे में सन २००१ में जल गुणवत्ता मुल्यांकन प्राधिकरण (Water Quality Assessment Authority) की स्थापना किया है। जल आयोग ने आज तक दो सौ से अधिक प्रकल्पों का (भारत और पासवाले राष्ट्र) सर्वेक्षण किया है। इसमें नेपाल के-७, भूटान के-२८, अफगानिस्तान का-१, म्यानमार २, इनका समावेश है। भारत के उत्तर पूर्व क्षेत्रों के प्रकल्पों में पानी का भण्डार नहीं किया गया, ऐसा मीझोरम राज्य में सत्ता प्रकल्पों का अन्वेषण किया गया, केंद्र शासन ने सब प्रकार की जल योजनाएँ जल्दी से जल्दी तैयार होकर उनका फायदा मिले इस उद्देश्य से (Accemelerated irrigation Benefits Programme) यह योजना सन १९९६ ते १९९७ से शुरु की गयी। इसमें मार्च २००८ तक २५३ बड़े, मध्यम और १३००० लघु प्रकल्प और अन्य योजनाओं को रु. २७२०० करोड़ की कर्ज आपूर्ति किया, इस कारण ५० लाख हेक्टेयर जमीन बारमासी खेती लायक हो गयी। इस जल आयोग के अंतर्गत पानी विषयक जानकारी इकठ्ठा करना, उसकी परीक्षण करना, अलग-अलग नदी क्षेत्रों का राष्ट्रीय स्तर पर पानी की जाँच और जलस्तर इ. जानकारी प्राप्त करने के लिए ८७८ जल निरीक्षण केंद्रों (Hydrological

observation stations) की स्थापना की गई है। यह जल आयोग जल के बारे में राष्ट्रीय जानकारी केंद्र दिल्ली में कार्य करता है। देश भर में प्रयोगशाला स्थापित की गयी है। बड़ी नदियों की जगह २५८ प्रथम स्तरीय विभागीय मुख्यालय २४ जगहों पर ओर वाराणसी, दिल्ली, हैदराबाद और कोयम्बतूर आदि स्थानों पर जल का परीक्षण करने वाली यंत्रणा कार्यरत है।

भारत में कोई भी प्रकल्प^{१०} स्थापित करते समय उसका पर्यावरण पर अच्छा और बुरा दोनों परिणाम होता है। पर्यावरण नियंत्रण करने के लिए २१ राज्यों में ८५ प्रकल्प के लिए राष्ट्रीय नदी प्रकल्प, पर्यावरण नियंत्रण समिति (National Environmental Monitoring Committee for Reversal Project NEMCRVP) स्थापित किया है। जल का उपयोग और सिंचन व्यवस्थापन पूर्ण क्षमता से हो रहा है या नहीं इस बारे में १०० प्रकल्पों का मुल्यांकन जल आयोग ने किया है। जल आयोग ने प्रकल्प में^{११} एकत्र होने वाली मिट्टी के बारे में अध्ययन शुरू किया है। आज तक ३० जल भण्डारों का सर्वेक्षण किया है। और चौदह प्रकल्पों का अभ्यास अभी तक शुरू है। केंद्रीय जल आयोग देश में ८१ महत्वपूर्ण जल भण्डारों का नियंत्रण करता है। इसमें और ४४ जल भण्डारों का समावेश करने वाले हैं। कुल १२५ बांधों का जल भण्डारों के बारे में हर सप्ताह जानकारी ली जाती है। पिछले साल का और बीते हुए दस सालों के जल भण्डार का पता किया गया है। कृषि मंत्रालय को फसल व मौसम का निरीक्षण, इस उपलब्ध जानकारी से जल भण्डारों के अनुसार फसलों का नियोजन करने के काम आता है।

अंतर्राज्य जल विवाद जल्दी से निपटाने के लिए केंद्रीय जलसंपदा मंत्रालय ने^{१२} बाणसागर नियंत्रण मंडल, बेतवा नदी मंडल, इस तरह से नियंत्रण मंडलों को स्थापित किया गया है। अंतर्राष्ट्रीय जलसंपदा विकास के लिए नेपाल, भूटान, पाकिस्तान, बांग्लादेश और चीन इन सब देशों से संबन्धित विकास कार्य करते समय, संयुक्त प्रकल्प प्रतिवेदन तैयार करते समय, केंद्रीय जल आयोग केंद्रीय मंत्रालय को सहायता करता है। प्रकल्प संकल्प (Design of Project) इस महत्वपूर्ण कार्य के लिए जल आयोग ने १४१ प्रकल्प की योजना बनाई है। इनमें ८५ प्रकल्प कामाधीन हैं। ४७ प्रकल्प अन्वेषण और नियोजन स्तर पर हैं। २३ उपप्रादेशिक प्रतिवेदन और बाढ़ नियमन (Design Flood Estimation) नामक किताब जल आयोग ने तैयार की है। देश में ४५०० बांधों का काम पूरा हुआ है, तथा कुछ निर्माणाधीन भी हैं। उसकी सुरक्षा के लिए जल आयोग ने बांध सुरक्षा नियम निर्माण किया है।

केंद्रीय जल आयोग के महत्वपूर्ण कार्य :

१. जलसंबंधी जानकारी एकत्र करना, २. नदी के जल का परीक्षण करना ३. बाढ़ जायजा लेना ४. बाढ़ के बारे में जानकारी देने वाले यंत्रों का आधुनिकीकरण करना ५. नदी के किनारों की मिट्टी के बारे में पता लगाना ६. प्रकल्पों का नियंत्रण करना ७. जल और विद्युत प्रकल्पों का मुल्यांकन करना ८. सर्वेक्षण अन्वेषण और प्रकल्पों का प्रतिवेदन तैयार करना ९. जलशय के जल भण्डारों का नियंत्रण करना १०. सिंचन व्यवस्थापन और जल का उपयोग अच्छी तरह से होने के लिए योजना तैयार करना ११. प्रकल्पों का स्थिर चिन्हांकन करना १२. बांधों में एकत्र होने वाली मिट्टी के बारे में अध्ययन करना १३. निर्माण कार्य और व्यवस्थापन संबंधी मार्गदर्शन करना १४. बांध सुरक्षा और जल के बारे में अभ्यास करना १५. जनता को जल उपयोग के बारे में जागृत करना।

निष्कर्ष :

जल आयोग के १५० समितियां भारत में कार्यरत हैं। जैसे राष्ट्रीय जल मंडल, जलप्रत मूल्यांकन प्राधिकरण, राष्ट्रीय जल विकास संस्था, जलसंशोधन सिंचन, सिंचन राष्ट्रीय समिति, तटरक्षण और विकास सल्लाहगार समिति, गंगापुर नियंत्रण मंडल, उर्ध्वयमुना नदी मंडल इ. जल संपदा के बारे में जनजागृति करने के लिए जल आयोग मासिक प्रतिवेदन प्रकाशित करता है। इंग्रजी और हिंदी दोनों भाषाओं में भगीरथ नाम का त्रैमासिक जलओयाग प्रकाशित करता है। जलआयोग का अभियांत्रिकी संग्रालय नई दिल्ली में है। यह संग्रालय केवल देश के जलसंपदा विकास के लिए समर्पित है। भारतीय समाज

को पानी का नियोजन करने के लिए देश में केंद्रीय जल आयोग सन १९४५ से कार्यरत है। इस संस्था का उद्देश्य देश में पानी का नियोजन करना तथा बाढ़ पर नियंत्रण करता है।

संदर्भ ग्रंथ :

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हिन्दी उपन्यास साहित्य में स्त्री दृष्टि

श्रीमती मीना उमेश कापरी : शोधछात्रा, जे.जे. टी. विश्वविद्यालय, राजस्थान

साहित्य का क्षेत्र बड़ा विस्तृत होता है। साहित्य का संबंध मानव जीवन से लेकर जगत के समस्त जीवों तक फैला हुआ है। साहित्य को उसको समग्र दृष्टिकोण से समझने की आवश्यकता होती है। अध्ययन की सुविधा के लिए साहित्य को स्त्री साहित्य, दलित साहित्य, बाल साहित्य, लोक साहित्य तथा आंचलिक साहित्य आदि अनेक वर्गों में विभाजित किया जा सकता है।

हिन्दी उपन्यासों का इतिहास बहुत पुराना नहीं है। हिन्दी उपन्यासों की असली शुरुवात 'भारतेन्दु युग' से मानी जाती है। आचार्य हजारी प्रसाद द्विवेदी जी ने भारतेन्दु जी के पूर्ण प्रकाश तथा 'चन्द्रप्रभा' को हिन्दी के पारंपरिक उपन्यासों की श्रेणी में रखा है। 'चंद्रप्रभा' में कन्या शिक्षा का समर्थन हुआ है, इस दृष्टि से 'चन्द्रप्रभा' हिन्दी का पहला नारी विषयक उपन्यास है।

भारतेन्दु जी ने एक मौलिक उपन्यास कुछ आपबीती, कुछ जगबीती पर लिखना प्रारंभ किया, परंतु उनकी अकाल मृत्यु के कारण यह उपन्यास अपूर्ण रह गया। इसके पश्चात राधाकृष्ण दास द्वारा लिखित स्वर्ण लता, मरता क्या न करता, निःस्सहाय हिन्दू बालकृष्ण भट्ट द्वारा लिखित; नूतन ब्रम्हचारी, सौ अजान एक सुजान। बाबू लालचंद ने नूतन चरित्र किशोरीलाल द्वारा लिखित तारा, चपला, तरुण तपस्विणी, रजियाबेगम, लीलावती, राजकुमारी, हृदयहारिणी, हीरावती, लखनऊ की कब्र, लवंगलता कुसुमकुमारी। प्रतापनारायण मिश्र ने राजसिंह, इंदिरा, राधारानी आदि उपन्यास लिखे। इन सभी उपन्यासों का मुख्य विषय विधवाओं की दयनीय दशा एवं अन्य सामाजिक बुराइयों से संबंधित था।

देवकीनन्दन खत्री ने 'चन्द्रकला' और 'चन्द्रकांता सन्तति नामक उपन्यास लिखे। यह उपन्यास पाठक वर्ग ने बहुत पसंद किया। गोपाल राम गहमरी ने साहसिक जासूसी तथा किशोरीलाल गोस्वामी ने कामुकता पूर्ण ऐतिहासिक उपन्यासों की रचना की थी। इन उपन्यासों का मुख्य उद्देश्य पाठकों को काल्पनिक जगत में ले जाकर उनका मनोरंजन करना मात्र था। इसमें नारी जीवन से संबंधित बातें उस रूप में नहीं आती जिसकी चर्चा हम कर रहे हैं।

प्रेमचंद के आगमन से हिन्दी उपन्यास साहित्य को एक नई रोशनी मिली। उपन्यास सम्राट प्रेमचंद जी का उपन्यास सेवासदन में वेश्या जीवन की पीड़ा को दर्शाया गया है। 'प्रतिज्ञा' उपन्यास में विधवा विवाह की समस्या को बताया गया है। 'गबन' उपन्यास में स्त्री के आभूषण प्रेम और उसको पाने की लालसा के दुष्परिणाम का चित्रण किया है। 'निर्मला' उपन्यास में बालविवाह, आनमेल विवाह, बहुविवाह, विधवा समस्या, दहेज प्रथा के साथ वेश्यावृत्ति जैसी अनेक स्त्री विषयक समस्याओं को चित्रित किया गया है।

प्रेमचंद जी के साथ अन्य उपन्यासकारों जैसे जयशंकर प्रसाद का उपन्यास 'तितली'। विश्वम्भरनाथ कौशिक का माँ और भिखारिणी,। वृन्दावनलाल वर्मा द्वारा लिखित उपन्यास झाँसी की रानी' मृगनयनी। जैनेन्द्र कुमार द्वारा लिखित 'सुनीता' और कल्याणी। नारी भावना और नारी दृष्टिकोण को ध्यान में रखकर लिखे गए उपन्यास हैं।

स्वतंत्रता प्राप्ति के बाद हिन्दी उपन्यास साहित्य में नारी स्वाधीनता नारी- अधिकार नारी-शिक्षा, नारी-स्वावलंबन तथा विधवा-विवाह जैसे अनेक विषयों पर लिखा गया। समकालीन हिन्दी उपन्यासकारों में विष्णू प्रभाकर ने कोई तो १९९२ में बलात्कार की समस्या को उठाया है। अर्धनारीश्वर १९९३ में इस समस्या पर और बल दिया गया। भीष्म साहनी द्वारा लिखित 'कुन्तों-१९९३' इस उपन्यास में पतियों के विवाहेत्तर संबंधोंसे पत्नियों में उत्पन्न मानसिक तनाव को समस्या के रूप में चित्रित किया गया है। कृष्ण बलदेव वेद के उपन्यास 'नर-नारी — १९९६' में आर्थिक रूप से संपन्न वर्ग के लोगों की एक मात्र समस्या सेक्स है। यी बताया गया है। इनके जीवन में प्रेम नाम की कोई चीज नहीं है। यहाँ सेक्स ही सबकुछ है।

समकालीन उपन्यास साहित्य में महिला उपन्यासकारों ने भी महत्वपूर्ण भूमिका निभाई है। इन उपन्यास लेखिकाओं में

प्रभा खेतान द्वारा लिखित 'छिन्नमस्ता,' अपने अपने चेहरे, पीली आँधी । मैत्रेयी पुष्पा द्वारा लिखित 'इदन्नम,' चाक । मृदुला गर्ग द्वारा 'कठगुलाब' । चित्रा मुद्गल द्वारा 'आवा' । उषा प्रियंवदा द्वारा लिखित पंचपन खम्भे लाल दीवारे,' 'रुकोगी नहीं राधिका' शेषयात्रा आदि ने नारी संवेदना को अपने उपन्यासों में चित्रित किया है ।

इन सब उपन्यासों के बाद नारी संवेदना को बड़ी सूक्ष्मता के साथ लिखित एक उपन्यास 'स्त्री का संघर्ष' हाल ही में प्रकाशित हुआ है । इसकी लेखिका डॉ. उषादेव हैं । इस उपन्यास में उन्होंने बड़ी ईमानदारी से बचपन में अपने साथ घटी हुई विविध घटनाओं को चित्रित किया है । आत्मकथनात्मक शैली में लिखे गये इस उपन्यास की नायिका बचपन में उसके पड़ोसी चाचा, फिर भाई, बाद में मामा आदि अपने सगे संबंधियों द्वारा निरंतर बलात्कार का शिकार होती गयी । इस उपन्यास में शिक्षित तथा आत्मनिर्भर लोगों में दहेज लोलुपता, नवीन और प्राचीन पीढ़ी के बीच वैचारिक टकराव को भी बताया गया है ।

निष्कर्ष: रूप में कहा जा सकता है कि हिन्दी उपन्यास साहित्य में नारी जीवन की जो समस्याएँ प्रेमचंद के काल में उठी थी वह आज भी बदलते हुए स्वरूप में मौजूद हैं । कानून या नैतिकता की वैशाखी के सहारे न चलकर इस समस्याओं का सामना करने के लिए स्त्री को पुरुषत्व धारण करने के बजाय पुरुष को स्त्री सुलभ गुणों से संपन्न होना होगा ।

संदर्भग्रंथ :

- १) हिन्दी साहित्य का इतिहास: आचार्य रामचंद्र शुक्ल
- २) हिन्दी साहित्य का इतिहास: डॉ शिवकुमार शर्मा
- ३) समकालीन हिन्दी उपन्यास: डॉ. मीना राजपूत
- ४) स्त्री का संघर्ष: डॉ. उषा देव

* * *

प्रा. दामोदर मोरे की कविता 'सावित्री से... सावित्री तक' में नारी चेतना

सौ. विजया म. गुडेकर: शोध छात्रा, उत्तर महाराष्ट्र विद्यापीठ, जलगांव, महाराष्ट्र

“औरत का जन्म नहीं होता उसे औरत बनाया जाता है” स्त्रीवाद को जन्म देनेवाली सिमॉन द बोव्होआर के ये शब्द आज भी भारतीय समाज में सब जगह बिखरे दिखते हैं। आज भी 'भारतीय नारी' अपनी परम्परा को 'मनुवाद' को बढ़ावा देती दिखाई पड़ती है। साहित्यकारों ने कई प्रकार से 'स्त्री' की अवस्थाका वर्णन किया है। हिंदी भाषा के प्रसिद्ध कवि दामोदर मोरे जी ने उनकी कविताओं में नारी को अपनी अस्मिता की पहचान दे दी है।

'सदियों के बहते जख्म' इस कविता संकलन में 'सावित्री से... सावित्री तक' यह कविता नारी की आज की स्थिति को दर्शाती है। मनुवाद के कारण दलित और स्त्रियों कि स्थिती बहुत ही कठिन हो गई। सदियों से चली आ रही रीतियों को केवल धार्मिक आडम्बरों के कारण निभाते चली आ रही अनेक पीढ़ियाँ आज भी उसमे अटकी हुई हैं।

कवि की पहली ही पंक्तियों में वट वृक्ष का रोना एक मिथ बनके आता है। वट पूर्णिमा का दिन, उस वट वृक्ष को दुःखद लगता है। इसलिए कवि उसे पूछता है, -

“तू क्यों आँसू बहा रहा... ?
आज वट पूर्णिमा... दिन सुनहरा
आज
भारतीय नारी करती है
तेरी पूजा.... प्रार्थना
लगा कर तुझे प्रदक्षिणा..”

कवि को इस बात का आश्चर्य हो रहा है, कि भारतीय नारीयाँ वृक्ष की पूजा करती हैं; और अपने पति की लम्बी आयुकी कामना करती है। उसे तो खुश होना चाहिये लेकिन यह रीति-रिवाजों के खोकलेपन की समझ होने के कारण यह वट वृक्ष कवि को रोता हुआ नजर आता है।

कवि को अंधश्रद्धा में डूबी नारी दिखाई देती है। वट वृक्ष को यही बात चुभती है। इस अंधश्रद्धा के कारण वृक्ष की डाल तोड़-तोड़ कर पर्यावरण का संतुलन बिगड़ा जा रहा है। कवि कहते हैं कि—

“पूजा के लिए
वह मेरी डाल-डाल तोड़ रहे हैं
उन्हें पता नहीं
वह अपने ही हाथ पैर काट रहे हैं
मैं
वटवृक्ष हूँ।
नहीं वृक्ष देवता
ये वास्तविकता कोई क्यों नहीं मानता...”

आज के इस आधुनिक युग में मानव जाति ने विज्ञान के आधार पर कई नयी खोज की है। लेकिन प्राचीन परम्पराओं का बोझ आज भी सब उठा रहे हैं। संत तुकाराम ने परम्पराओं के बारे में कहा है कि, बरसों से चली आई परम्पराओं में से आज के समाज के लिए जो उचित है उसको स्विकार करके अनुचित परम्पराओं को त्याग देना ही समझदारी है। उन्होंने जाति व्यवस्था पर कड़ा प्रहार किया। साथ ही महिलाओं की सुरक्षा और सामाजिकता पर भी ध्यान देते हुए आदमी और औरत दोनों

ही समाज के महत्वपूर्ण घटक है, यह बात अपने निरूपण में बार-बार दर्शायी थी। आज भी उनकी सीख उजागर करने की जरूरत है।

कवि दामोदर मोरे जी ने भी इसी बात पर अपनी लेखनी को शस्त्र बनाया है।

“मुझे दुख इस बात का
नारी स्वयं को ढकेलती जा रही अतीत में
वट पूर्णिमा की पूजा से
भूतकाल की आँधी में।”

आज भी नारी अंधविश्वास को मानते हुए अपने आप को अतीत में ढकेलती रही है। कवि को इस बात का दुख है की अपना अस्तित्व जागृत करने के बजाय आज भी नारी व्यस्त है “अपने असतित्व, अस्मिता को खो देने में” अज्ञान का अंधेरा उसे अतीत में ढकेल रहा है।

सत्यवान और सावित्री की कहानी को उजागर करते हुए कवि उनके होने के उपर प्रश्न चिन्ह लगाता है —

“अभी तक किसी वैज्ञानिक ने
उनको है खोजा... ?”

यह सत्यवान सावित्री आज भी नारी जाति को अज्ञान के अंधेरे में ढकेल रही है और अंधश्रद्धा के कुएँ में जान दे रही नारियों को क्या फुले नाम की दूसरी सावित्री याद नहीं? जिसने भारतीय नारी को जगाया है और रोशनी की तरफ ले जा रही है।

स्वतंत्रता का जो संग्राम हुए उसमें कई बदलाव इस भारत देश में हुए। अम्बेडकर, फुले, तिलक, गांधी, लोक हितवादी ऐसे कई महान विचारधाराओं ने भारत की सोच और भविष्य को नया मोड़ दिया। सर्वधर्म समभाव का नारा दिया। मनुवाद को नष्ट किया। उसके साथ एक महत्वपूर्ण कार्य महात्मा फुले और सावित्रीबाई फुले ने किया है वो है नारी शिक्षा का पुरस्कार। भारतीय नारी को शिक्षा का अधिकार प्राप्त करके पूरी नारी जाति का उन्होंने उद्धार किया है।

कवि कहते हैं इन भारतीय नारी को या आपको सत्यवान की सावित्री की याद है लेकिन फुले की सावित्री को आप भूल गए। जो की भारतीय नारी को अगली सदी में रोशनी की ओर ले जा रही है।

कवियों से वे निवेदन करते हैं की —

“तुम जाओ... कहो उन नारियोंसे
पहिली सावित्री तुम्हारे लिए अमावस्या का अंधियारा,
दूसरी सावित्री है पूनम का उजियारा...।”

इस सावित्री से सीख पाकर अपनी जिंदगी रोशनीसे भर दो। ये बात कवि आज की नारियों को कहते हैं।

अंत में आज भी समाज में चल रहे नारी शोषण को दर्शाते हुए वे लिखते हैं कि -

“मैं चुपचाप रास्ते से जा रहा था
चीखों की आयी आवाज
शराबी पति पत्नी को पीट रहा था।”

कह रहा था—

कहाँ गयी थी बोल...।
गयी होगी मिलने यार से
वटवृक्ष के पीछे चुपके से...।”

नारी अपनी पति की लम्बी आयु की कामना करने और अगले सात जन्मों तक यही पति मिले यह कामना करके वट वृक्ष की पूजा करती है और उसका पति जो अपने आपको परमेश्वर समझता है। उसे यह हक पुरातन संस्कृति के रखवालदारों ने दिया है। वह उसे पीटता और उसके चरित्र पर लांछन लगाता है। क्या यही है पूजा का फल जो उस नारी को सदियों से मिलती आ रहा है। इन बहते जख्मों पर नारी आज भी मरहम लगाना चाहती है की उन्ही आडम्बरों में जीने की आदत सी हो गई है। पतिव्रता बनना यही उसके जीवन का अंतिम उद्देश्य रहा है।

कविता के समापन में कवि कहते हैं —

“डालियाँ काटने से

वटवृक्ष पर था जख्म ही जख्म

पत्नी की आँखों में पतिव्रत्य रो रहा था।

आँखों में बारिश... मैं रस्ते से जा रहा था।”

यहाँ वट वृक्ष, नारी जो पिड़ित है और कवि जो संवेदनशील है इन तीनों की स्थिति एक जैसी हो गयी है। अत्यंत वेदना से झुलस रहे हैं यह संक्रमण की ओर जाने का संदेश है। कवि मन को समाज परिवर्तन प्यारा है और उसी कारण यह पीड़ा उसे सताती है।

एक आशा भी है उसमें जो की फुले जी के समाजव्रती की शिक्षा को अपनाते हुए नारी जाति उजाले की तरफ जा सकती है, यह संदेश कवि देना चाहते हैं।

अत्यंत संवेदनशील और परिवर्तनशील मन ही इस कविता को जन्म दे सकता है। अम्बेडकर, फुले इनकी शिक्षा का, क्रान्तिकारी विचारों का झण्डा हाथ में लिए कवि ने एक जंग छेड़ी है, अज्ञान, अंधविश्वास एवम् सामाजिक अवडम्बरों के खिलाफ।

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शिक्षित अनुसूचित जाति एवं राजनैतिक व्यवहार

कृष्ण कुमार: शोधार्थी, राजनीति विज्ञान, जे.जे.टी. विश्वविद्यालय, झुनझुनू (राजस्थान)

अस्पृश्य, जिन्हें भारतीय संविधान ने अनुसूचित जातियों की श्रेणी में रखा, हिन्दू समाज का वह अंग है, जो युगों तक शोषित रहा, परम्परागत हिन्दू सामाजिक संरचना में उनकी स्थिति निम्नतम रही तथा ये अनेक अयोग्यताओं से ग्रस्त रहे हैं। १९ वीं शताब्दी के उत्तरार्ध तथा २० वीं शताब्दी के पूर्वार्ध को भारतीय समाज का पुनर्जागरण काल कहा जा सकता है। इस काल में हुए समाज सुधार एवं राजनैतिक आन्दोलनों में अस्पृश्यों की स्थिति की ओर ध्यान आकृष्ट किया गया, परन्तु उनकी स्थिति में सुधार के संगठित एवं नियोजित प्रयास स्वतंत्रता प्राप्ति के पश्चात ही हुए हैं। स्वतंत्र भारत के संविधान में उन्हें अनेक संरक्षण एवं सुविधाएँ प्रदान की गयीं। संविधान में प्रदत्त सुविधाओं एवं सुरक्षाओं के साथ-साथ समकालीन भारतीय समाज की परिवर्तन की प्रक्रियाओं में बढ़ती हुयी शिक्षा, औद्योगीकरण, नगरीकरण, संस्कृतिकरण, आधुनिकीकरण आदि ने भी उन्हें पर्याप्त रूप से प्रभावित किया है। इनके परिणाम स्वरूप अनुसूचित जातियों के सामाजिक, आर्थिक, राजनैतिक जीवन आदि में उल्लेखनीय परिवर्तन आया है। इन परिवर्तनों को समझने के लिए वैज्ञानिकों ने विभिन्न समाज के अनुसूचित जातियों को अध्ययन की कसौटी पर रखने की चेष्टा की है, जिनमें से कुछ प्रमुख अध्ययन निम्न प्रकार हैं :-

ब्रिगस^१ तथा फ्यूचस^२ ने अनुसूचित जातियों पर उल्लेखनीय अध्ययन किये हैं। ये दोनों अध्ययन विवरणात्मक है। इनमें उनके जीवन के स्थिर चित्र को प्रस्तुत करने की चेष्टा की गयी है। इसके अतिरिक्त कुछ ऐसे भी अध्ययन हुए हैं, जिनके द्वारा स्पष्ट होता है कि शिक्षा उनके जीवन में परिवर्तन लाने का महत्वपूर्ण उपकरण सिद्ध हो रही है, जैसा कि आइसाक्स^३ के अध्ययन से स्पष्ट है कि शिक्षा उन्हें राजनैतिक क्षेत्र में शक्ति और प्रतिष्ठा प्राप्त कराने में प्रमुख भूमिका निभा रही है। इसी प्रकार गैलेण्टर^४ ने भी अपने लेख में स्पष्ट किया है कि शिक्षा ने अनुसूचित जाति के व्यक्तियों में राजनैतिक चेतना जागृत की है और उन्हें अपने समाज का नेतृत्व करने के लिए प्रोत्साहित किया है। एप्सटीन^५ ने अपने शोध प्रपत्र से जो कि मैसूर के दो गाँवों के अध्ययनों पर आधारित है, स्पष्ट किया है कि यद्यपि ग्राम पंचायतों में अनुसूचित जाति के व्यक्तियों को नेतृत्व करने का अवसर तो मिला है, लेकिन वे आज भी अपनी वास्तविक शक्ति को स्पष्ट नहीं कर पा रहे हैं, क्योंकि वे आज भी उच्च जातियों की भूमि से ही जीविकोपार्जन कर रहे हैं। खरे^६ ने अपने अध्ययन का केंद्र बिन्दु रीवा जनपद (म.प्र.) की चार प्रमुख अनुसूचित जातियों - चर्मकार, कुम्हार, बासौर और मेहता को बनाया है। इस अध्ययन से स्पष्ट हुआ है कि शिक्षा ने इन जातियों के जीवन के विभिन्न पक्षों में उल्लेखनीय परिवर्तन किया है। शिक्षा ने इन जातियों के मध्य व्यावसायिक गतिशीलता को बढ़ावा दिया है, जिसके परिणाम स्वरूप वे अपना परम्परागत व्यवसाय छोड़ने लगे हैं। यह अध्ययन यह भी स्पष्ट करता है कि शिक्षा ने इनके मध्य राजनैतिक संचेतना को भी बढ़ाया है। यह राजनैतिक संचेतना अन्य अनुसूचित जातियों की अपेक्षा चर्मकारों में अधिक पायी गयी है। मलिक^७ ने अम्बाला शहर के अनुसूचित जाति के व्यक्तियों के जीवन के विभिन्न पक्षों-व्यावसायिक गतिशीलता, सामाजिक स्थिति, अन्तःक्रिया के प्रतिमान, परिवार एवं विवाह के प्रतिमानों आदि का अध्ययन किया है और देखा है कि शिक्षा ने इनके जीवन के विभिन्न पक्षों को कहाँ और किस सीमा तक प्रभावित किया है। इस अध्ययन से स्पष्ट हुआ है कि शिक्षा इन व्यक्तियों के जीवन में परिवर्तन लाने के एक सशक्त माध्यम के रूप में उभर रही है तथा शिक्षा ने इन्हें राजनैतिक अधिकारों को प्राप्त करने के लिए प्रेरित ही नहीं किया है वरन् उनके मध्य नेतृत्व के नवीन प्रतिमान भी विकसित किये हैं। कृष्णा, बी. राम^८ ने माना है कि भारत सरकार की कल्याणकारी नीतियों एवं कार्यक्रमों के परिणामस्वरूप अनुसूचित जातियों

का सर्वांगीण विकास की नहीं हो रहा है, वरन् उनके मध्य एक 'नवीन अभिजन वर्ग' का भी विकास हो रहा है। अभिजन वर्ग के व्यक्तियों ने संवैधानिक प्रावधानों, सरकार की कल्याणकारी योजनाओं एवं कार्यक्रमों के परिणामस्वरूप अनुसूचित जातियों वैयक्तिक रूप से उन्नति की है, उनकी राजनैतिक सहभागिता बढ़ी है, उनका नये व्यावसायिक क्षेत्रों में भी प्रवेश बढ़ा है, किन्तु वह अपने समाज के सदस्यों के उत्थान हेतु विशेष ध्यान नहीं देते हैं। यह अभिजन वर्ग अपने मूल परिवार एवं जाति के लोगों के साथ एक दूरी बनाकर भी रहने लगा है। इसके परिणाम स्वरूप अनुसूचित जातियों का अपेक्षित उत्थान नहीं हो पा रहा है, किन्तु कुछ शिक्षित अनुसूचित जाति के व्यक्ति नौकरियों में आरक्षण का लाभ प्राप्त कर विभिन्न क्षेत्रों में रोजगार भी प्राप्त करने लगे हैं। गर्ग, विकास¹⁰ ने भारतीय समाज में दलित-चिन्तन का अध्ययन ऐतिहासिक परिप्रेक्ष्य में किया है। दलित चिन्तन का स्वरूप डॉ.बी. आर. अम्बेडकर के साहित्य में स्पष्ट रूप से परिलक्षित होता है। डॉ. अम्बेडकर के दर्शन के तीन केंद्रीय तत्व रहे हैं। - वर्गमूलक समाज का विनाश, दलित समाज की मुक्ति, समता एवं सार्वभौमिक न्याय के आधार पर दलितों को नेतृत्व के अवसर। आपकी मान्यता थी कि दलित समाज तब तक ऊपर नहीं उठ सकेगा, जब तक कि वह शासन-वर्ग की समस्त योग्यताएँ प्राप्त नहीं कर लेता है। ये योग्यताएँ – उनका शिक्षित होना, सार्वजनिक जीवन में भागीदारी करना, परम्परागत कुण्ठाओं से मुक्ति पाना आदि हैं। डॉ. अम्बेडकर की मान्यता रही है कि अनुसूचित जाति के व्यक्ति संगठित, शिक्षित होकर कार्य करने लगे तो निश्चित ही उन्हें अपने अधिकारों को प्राप्त करने में सफलता मिलेगी।

उपरोक्त ज्ञान के आधार पर कहा जा सकता है कि शिक्षा अनुसूचित जातियों के जीवन में परिवर्तन लाने के एक सशक्त माध्यम के रूप में उभर रही है। इसी तथ्य को दृष्टिगत रखते हुये प्रस्तुत शोध पत्र में अलीगढ़ नगर के शिक्षित अनुसूचित जाति के व्यक्तियों के राजनैतिक व्यवहार का अध्ययन करने का प्रयास किया गया है। इस अध्ययन के द्वारा अनुसूचित जाति के व्यक्तियों की राजनैतिक दलों की सदस्यता एवं सदस्यता का कारण, जलूसों एवं प्रदर्शनों में सहभागिता, मताधिकार का उपयोग तथा वर्तमान चुनाव प्रणाली के प्रति दृष्टिकोण आदि का मूल्यांकन किया गया है। साथ ही यह भी निरूपित करने का प्रयास किया गया है, कि शिक्षा ने इन व्यक्तियों के इस राजनैतिक व्यवहार को किस सीमा तक प्रभावित किया है?

प्रस्तुत अध्ययन की प्रमुख संकल्पना यह है कि अनुसूचित जाति के व्यक्तियों के शैक्षणिक स्तर की वृद्धि से उनका राजनैतिक व्यवहार सकारात्मक रूप से प्रभावित हुआ है।

प्रस्तुत अध्ययन अलीगढ़ नगर के कम के कम हाईस्कूल तथा उससे अधिक शिक्षित अनुसूचित जाति के व्यक्तियों पर आधारित है। इस अध्ययन में ५० हाईस्कूल, ५० इण्टरमीडिएट, ५० स्नातक एवं ५० स्नातकोत्तर तक शिक्षित कुल २०० अनुसूचित जाति के व्यक्तियों को सम्मिलित किया गया है। अध्ययन में निवास का क्षेत्र, आयु एवं आय जैसे चरों को नियंत्रित करने के उद्देश्य से अलीगढ़ नगर के २५ वर्ष से ३५ वर्ष तक की आयु के १५००० रु. से २५००० रुपये मासिक आय के अनुसूचित जाति के व्यक्तियों को ही सम्मिलित किया गया है। ऐसा करना इसलिए आवश्यक समझा गया है, जिससे कि 'स्वतंत्र चर शिक्षा' के स्तर की वृद्धि का प्रभाव सूचनादाताओं के राजनैतिक व्यवहार पर परिलक्षित किया जा सके। सूचनादाताओं का चयन 'उद्देश्यपूर्ण निदर्शन पध्दति' के आधार पर किया गया है। तथ्यों का संकलन 'संरचित साक्षात्कार पध्दति' के माध्यम से किया गया है। साथ ही 'साक्षात्कार अनुसूची' को तथ्य संकलन के प्रमुख उपकरण के रूप में प्रयोग किया गया है।

अध्ययन से प्राप्त सूचनाओं का तथ्यात्मक विवरण एवं विश्लेषण निम्न प्रकार किया जा सकता है। -

सारिणी संख्या १

शिक्षा तथा दल विशेष की सदस्यता का विवरण

क्र. सं.	शिक्षा का स्तर	दल विशेष के सदस्य हैं					योग	
		हाँ						नहीं
		बहुजन पार्टी	समाज पार्टी	भारतीय जनता पार्टी	जनता समाजवादी पार्टी	काँग्रेस पार्टी		
१	हाईस्कूल	१४		५	१	१	२९	५०
२	इण्टरमीडिएट	१९		३	४	३	२९	५०
३	स्नातक	२३		६	५	३	३७	५०
४	स्नातकोत्तर	२९		७	४	२	४२	५०
	योग	८५		२१	१४	९	७९	२००

उपरोक्त के आधार पर स्पष्ट होता है कि अधिकांश (६४.५०%) सूचनादाता किसी न किसी राजनैतिक दल के सदस्य हैं। उनकी यह सदस्यता उनके शैक्षणिक स्तर की वृद्धि के साथ साथ बढ़ती जा रही है। साथ ही यह तथ्य भी परिलक्षित होता है कि अधिकांश (६५.८९%) सभी शैक्षणिक स्तर के सूचनादाता 'बहुजन समाज पार्टी' के सदस्य हैं।

सारिणी संख्या २

शिक्षा तथा राजनैतिक दल विशेष की सदस्यता के कारणों का विवरण

क्र. सं.	शिक्षा का स्तर	दल विशेष की सदस्यता के कारण				योग
		दल की नीतियाँ एवं कार्यक्रम	दल में जाति के सदस्यों का बाहुल्य	नेताओं से परिचय	विशेष लाभ प्राप्त होने की आशा	
१	हाईस्कूल	११	७	२	१	२१
२	इण्टरमीडिएट	१६	६	३	४	२९
३	स्नातक	२३	९	४	१	३७
४	स्नातकोत्तर	२९	११	२	०	४२
	योग	७९	३३	११	६	१२९

उपरोक्त से स्पष्ट होता है कि अधिकांश (६१.२४%) सूचनादाताओं ने दल विशेष की सदस्यता लेने का प्रमुख कारण दल की नीतियों एवं कार्यक्रमों में आस्था होना माना है। उनकी यह सदस्यता उनके शैक्षणिक स्तर की वृद्धि के साथ-साथ बढ़ती जा रही है।

सारिणी संख्या ३

शिक्षा तथा राजनैतिक दलों द्वारा आयोजित जुलूस, प्रदर्शनों में सहभागिता का विवरण

क्र. सं.	शिक्षा का स्तर	जुलूस प्रदर्शनों में सहभागिता करते हैं		योग
		हाँ	नहीं	
१	हाईस्कूल	२९	२१	५०

२	इण्टरमीडिएट	३७	१३	५०
३	स्नातक	४२	८	५०
४	स्नातकोत्तर	४५	५	५०
	योग	१५३	४७	२००

उपरोक्त से स्पष्ट होता है कि अधिकांश (७६.५%) सूचनादाता राजनैतिक दलों द्वारा समय-समय पर आयोजित किये जाने वाले जलूस, प्रदर्शनों में सहभागिता करते हैं। उन की यह सहभागिता उनके शैक्षणिक स्तर की वृद्धि के साथ-साथ बढ़ती जा रही है।

सारिणी संख्या ४

शिक्षा तथा पिछले लोकसभा/विधानसभा चुनावों में मतदान करने पर विवरण

क्र. सं.	शिक्षा का स्तर	मतदान किया था		योग
		हाँ	नहीं	
१	हाईस्कूल	३७	१३	५०
२	इण्टरमीडिएट	३९	११	५०
३	स्नातक	४३	७	५०
४	स्नातकोत्तर	४५	५	५०
	योग	१६४	३६	२००

उपरोक्त से स्पष्ट होता है कि अधिकांश (८२.००%) सूचनादाताओं ने पिछले लोकसभा/विधानसभा चुनावों में मतदान किया है। इन सूचनादाताओं का मतदान करना उनके शैक्षणिक स्तर की वृद्धि के साथ-साथ बढ़ रहा है।

सारिणी संख्या ५

शिक्षा तथा पिछले लोकसभा/विधानसभा चुनावों में मतदान किसे किया? के निर्णय के आधार पर विवरण

क्र. सं.	शिक्षा का स्तर	मतदान किसे किया के निर्णय के आधार			योग
		स्वयं का निर्णय	राजनैतिक दल का निर्णय	परिवार एवं मित्रों का निर्णय	
१	हाईस्कूल	०६	१२	१९	३७
२	इण्टरमीडिएट	११	८	२०	३९
३	स्नातक	१६	०४	२३	४३
४	स्नातकोत्तर	२१	०३	२१	४५
	योग	५४	२७	८३	१६४

सारणी संख्या ५ से स्पष्ट होता है कि अधिकांश (५०.६१%) सभी शैक्षणिक स्तरों तक शिक्षित सूचनादाताओं ने पिछले लोकसभा/विधानसभा चुनावों में मतदान परिवार एवं मित्रों के निर्णय के आधार पर किया है। साथ ही सूचनादाताओं के शैक्षणिक स्तर की वृद्धि के साथ-साथ स्वयं के विवेक के निर्णय के आधार पर मतदान करने का प्रतिशत बढ़ रहा है। यह तथ्य मतदान प्रक्रिया पर शिक्षा के सकारात्मक प्रभाव का परिचायक है।

सारिणी संख्या ६
शिक्षा तथा वर्तमान चुनाव प्रणाली के प्रति दृष्टिकोण का विवरण

क्र. सं.	शिक्षा का स्तर	वर्तमान चुनाव प्रणाली के प्रति दृष्टिकोण		योग
		ठीक हैं	ठीक नहीं हैं	
१	हाईस्कूल	४२	८	५०
२	इण्टरमीडिएट	३९	११	५०
३	स्नातक	३६	१४	५०
४	स्नातकोत्तर	३४	१६	५०
	योग	१५१	४९	२००

उपरोक्त सारणी से स्पष्ट होता है कि अधिकांश (७६.५%) सभी शैक्षणिक स्तरों तक शिक्षित सूचनादाता वर्तमान चुनाव प्रणाली को ठीक मानते हैं।

अध्ययन में सम्मिलित जो ४९ (२४.५०%) सूचनादाता वर्तमान चुनाव प्रणाली को ठीक नहीं मानते हैं, उनसे इस संदर्भ में विस्तृत वार्तालाप किया गया। उन्होंने वर्तमान चुनाव प्रणाली को और अधिक प्रभावशाली बनाने के उद्देश्य से निम्न सुझाव दिये हैं।

1. मताधिकार का प्रयोग अनिवार्य किया जाय।
2. चुनाव का सारा खर्च सरकार द्वारा वहन किया जाय, जिससे निर्धन एवं योग्य व्यक्ति भी चुनाव प्रक्रिया में सक्रिय रूप से भाग ले सकें।
3. आरक्षित क्षेत्र प्रत्येक लोकसभा/विधानसभा चुनावों में परिवर्तित किए जायें।
4. सांसद / विधायक पद हेतु चुनाव लड़ने वाले व्यक्तियों की न्यूनतम शैक्षणिक योग्यता निर्धारित की जानी चाहिए। न्यूनतम शैक्षणिक योग्यता न रखने वाले व्यक्तियों को चुनाव लड़ने के अयोग्य घोषित किया जाय।
5. लोकसभा/विधानसभा चुनावों के अवसर पर राष्ट्रपति शासन लगाने की व्यवस्था की जाय, जिससे कि सत्तारुढ़ दल शासकीय मशीनरी का दुरुपयोग न कर सके।
6. लोकसभा एवं विधानसभा की निर्वाचन नामावलियाँ एक ही होनी चाहिये तथा उन्हें समय-समय पर आवश्यकतानुसार पुनर्निरीक्षित किया जाना चाहिये, जिससे उनमें पाये जाने वाले दोषों का निस्तारण होता रहे।
7. लोकसभा एवं विधानसभा की सदस्यता हेतु ऐसे किसी भी व्यक्ति को प्रत्याशी नहीं बनाना चाहिए, जिस पर अपराधिक मामले न्यायालयों में विचाराधीन हों या किसी भी न्यायालय द्वारा उसे दण्डित किया जा चुका हो।

निष्कर्ष:

यद्यपि इन सीमित आँकड़ों के आधार पर व्यापक सामान्यीकरण करना अत्यधिक कठिन होगा। तथापि प्रस्तुत अध्ययन से प्राप्त निष्कर्षों को निम्न प्रकार स्पष्ट किया जा सकता है कि शिक्षित अनुसूचित जाति के व्यक्तियों के राजनैतिक व्यवहार में उल्लेखनीय परिवर्तन आया है। उनमें राजनैतिक चेतना एवं राजनैतिक सहभागिता बढ़ी है, जो कि उनके शैक्षणिक स्तर की वृद्धि के साथ-साथ सकारात्मक रूप से प्रभावित हो रही है। साथ ही इन शिक्षित अनुसूचित जाति के व्यक्तियों में भी यह विश्वास दृढ़ होता जा रहा है कि वे राजनीति में सक्रिय भाग लेकर ही स्वयं की, जाति की एवं समाज की समस्याओं का निराकरण कर सकेंगे। शिक्षित अनुसूचित जाति के अधिकांश व्यक्ति 'बहुजन समाज पार्टी' के सदस्य हैं। उनकी इस

सदस्यता का कारण दल की नीतियाँ एवं कार्यक्रम हैं। इनकी मान्यता है कि देश में केवल एक ही दल 'बहुजन समाज पार्टी' है, जो कि अनुसूचित जातियों के साथ-साथ 'संपूर्ण मानवता' का सर्वांगीण विकास करने में विशेष रुचि लेता है।

वर्तमान चुनाव प्रणाली में अपेक्षित परिवर्तन के सुझाव जैसे-मताधिकार के प्रयोग की अनिवार्यता, चुनाव का सारा खर्च सरकार द्वारा वहन किया जाय, आरक्षित क्षेत्र प्रत्येक लोकसभा/विधानसभा चुनाव में परिवर्तित किया जाय, सांसद/विधायक पदों के प्रत्याशियों की न्यूनतम शैक्षणिक योग्यता निर्धारित की जाय, लोकसभा/विधानसभा चुनावों के अवसर पर राष्ट्रपति शासन लगाया जाय, निर्वाचन नामावलियों के दोषों को दूर करना तथा लोकसभा/विधानसभा की सदस्यता हेतु ऐसे किसी भी व्यक्ति को प्रत्याशी न बनाया जाय, जिस पर अपराधिक मामले न्यायालयों में विचाराधीन हों या किसी भी न्यायालय द्वारा उसे दण्डित किया जा चुका हो आदि अनिवार्य प्रतीत होते हैं। यदि वर्तमान चुनाव प्रणाली में इन सुझावों के आधार पर आवश्यक परिवर्तन किया जायेगा, तो निश्चय ही देश में लोकतंत्र की जड़ें अधिक मजबूत होंगी।

उपरोक्त निष्कर्षों के आधार पर अध्ययन में निरूपित प्राकल्पना की भी पुष्टि होती है।

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संत काव्य में सामाजिक सरोकार

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भारत को संतों की भूमि माना जाता है। संतों ने ही समय-समय पर भारतीय समाज में लोगों को जागृत करने का प्रयास किया है। भारतीय इतिहास के मध्यकाल में संतों ने हमें अपनी अस्मिता का बोध कराया है। इस प्रकार संतों ने भारतीय समाज के लोगों के लिए एक प्रभावी मार्गदर्शक की भूमिका अदा की है।

हिन्दी साहित्य के पूर्व मध्यकाल में संतो के दो विभाग दिखाई पड़ते हैं। एक विभाग में संत कबीर, रैदास तथा दादू बैठे दिखाई पड़ते हैं। दूसरे विभाग में सूरदास, तुलसीदास और मीरा आदि दृष्टिगोचर होते हैं। दोनों विभागों के संतों ने ईश्वर भक्ति का पावन संदेश दिया है। दोनों के मार्ग अलग-अलग हैं। कबीर के विभाग में बैठे हुए संतो ने निराकार-निर्गुण परमात्मा की बात कही है। दूसरे विभाग में बैठे हुए संतो ने साकार सगुण ईश्वर की भक्ति का मार्ग सुझाया है। पूर्व मध्यकाल या भक्तिकाल को निर्गुण तथा सगुण दो शाखाओं में वर्गीकृत किया जाता है। इन दोनों शाखाओं को पुनः दो-दो भागों में विभाजित किया जाता है। निर्गुण शाखा के अंतर्गत संत काव्य और सूफी काव्य का समावेश होता है। जबकि सगुण शाखा के अंतर्गत रामकाव्य तथा कृष्ण काव्य का समावेश होता है।

संत काव्य के रचनाकारों में कबीर का स्थान निर्विवाद रूप से श्रेष्ठ है। कबीर संत काव्य के प्रवर्तक कवि माने जाते हैं। कबीर बड़े सरल हैं। कबीर बड़े जटिल भी हैं। सरल इसलिए कि उनके दोहे पाठशाला से लेकर महाविद्यालयों तक पढ़ाये जाते हैं। कठिन इसलिए है कि कई अवसरों पर उनकी दार्शनिक बातें विश्वविद्यालय के विद्यार्थियों के लिए भी कठिन हो जाती हैं। इस क्रम में कबीर को अलग-अलग विद्वानों ने अलग-अलग उपाधियाँ दी हैं। कोई उन्हें भक्त, कोई कवि, कोई समाजसेवी, कोई समाज सुधारक, कोई समाज विद्रोही, कोई क्रांतिकारी, कोई सच्चा इन्सान और कोई मसीहा कहता है। दरअसल, कबीर को अलग-अलग रूपों में समझने के बजाय समग्र रूप में समझने की जरूरत है।

कबीर साहित्य का विश्वकोश समझी जानेवाली पुस्तक कबीर ग्रंथावली में कबीर के सामाजिक चिंतन को लेकर तीन विद्वानों ने अपने-अपने विचार इस प्रकार से प्रस्तुत किये हैं।

डॉ. रामचंद्र तिवारी के अनुसार “कबीर समाज रचना के लिए किसी प्रकार के सुधारवादी आंदोलन के पुरस्कर्ता न होकर मानव आत्मा की मुक्ति के लिए अध्यात्मिक संघर्ष करने वाले साधक थे।”

आचार्य हजारी प्रसाद द्विवेदी के मतानुसार “कबीर ने ऐसी बहुत सी बातें कही हैं, जिससे उन्हें समाज सुधार में बड़ी सहायता मिल सकती है, परंतु इसलिए उन्हें समाज सुधारक समझना गलत है। वस्तुतः कबीर व्यक्तिगत साधना के प्रचारक थे। सामाजिक वृत्ति उनके चित्त का स्वाभाविक धर्म नहीं था।”

डॉ. रामकुमार बर्मा ने कहा कि “जब तक समाज व्यवस्थापन नहीं होता”। तब तक किसी विचार या सिद्धांत का प्रसार संभव नहीं है। यही कारण है कि कबीर अनुभूति संपन्न कवि और संत होते हुए भी समाज की अनिश्चित परिस्थितियों के प्रति उदासीन न रह सके। भक्ति आंदोलन के प्रमुख प्रवर्तकों में होते हुए भी समाज सुधार के अग्रणी बने रहें।”

कबीर के समर्थन में सामाजिक ताने-बाने के टूटने का प्रमुख कारण धर्म था। उस काल में राजनैतिक समस्या एक प्रकार से धार्मिक समस्या बन गयी थी। अब चूँकि भारतीय समाज के परिप्रेक्ष्य में सामाजिक व्यवस्था को धार्मिक व्यवस्था से अलग करके नहीं देखा जा सकता, अतएवं कबीर ने धार्मिक कट्टरपन, धार्मिक शोषण, अंध-श्रद्धा, अंधविश्वास और जातिगत विषमता पर गहरी चोट की है।

कबीर ने आदि गुरु शंकराचार्य द्वारा प्रचारित भारतीय दर्शन के विश्व विख्यात सिद्धान्त “ब्रम्ह सत्यम् जगत् मिथ्य का सामाजिक समता के लिए बड़ा सुन्दर उपयोग किया कबीर ने यह संकेत किया कि, जब एक ही तत्त्व सर्वत्र विद्यमान है तो जाति

धर्म, उँच-नीच आदि का भेदभाव किसने, कहाँ से और क्यों पैदा किया ? इस संदर्भ में उनकी कुछ पंक्तियाँ इस प्रकार हैं-

“एकहि जोत सकल घट व्यापक, दूजा तत्व न होई।

कहै कबीर सुनों रे संतो, भटक मरे जनि कोई।”

वस्तुतः समाज सुधार दो तरह से हो सकता है। पहला, समाज में फैली विद्रूपताओं, कुप्रथाओं, जाति-धर्मगत रुढ़ियों का विरोध करके। दूसरा, इन समस्याओं का कोई समाधान प्रस्तुत करते हुए। कबीर में समाज सुधार का पहला रूप अधिक स्पष्टता से महसूस किया जा सकता है। यह बात सत्य है कि कबीर स्त्रियों के मामले में उतने उदार तथा समतावादी नहीं थे। परंतु यह भी सत्य है कि समाज में फैली बुराईयों का वह घूम-घूमकर विरोध किया करते थे। समाज को निरंतर प्रहरी की तरह “जागते रहें” का संदेश देते रहते थे। कबीर के व्यक्तित्व की सबसे बड़ी विशेषता यह थी कि उन्होंने समाज की विसंगतियों का डटकर मुकाबला किया। उन्होंने लोक प्रचलित सगुण ब्रह्म की सीमा तोड़ते हुए निर्गुण परमात्मा को अपनाया जो सभी के लिए सर्वत्र आसानी से उपलब्ध हो सकता था। कबीर का यह साहस उन्हें अन्य संतो से अलग करता है।

कबीर का जन्म हिन्दू परिवार में हुआ, पालन पोषण मुस्लिम परिवेश में हुआ था। इससे कबीर को दोनों धर्मों में व्याप्त कुरीतियों तथा अंधश्रद्धाओं की पहचान करने में सहायता मिली। यही कारण है कि कबीर ने दोनों संप्रदायों के लोगों को कुछ इस प्रकार सचेत किया।

“ नहीं कोउ नीचा। जाका ब्यंड ताही का सींचा

जे तू बाभण बभणी जाया। तौ आन बाट है क्यो न आया

जौ तू तुरक-तुरकनी जाया। तौं भितर खतनी क्यो न कराया

कहै कबीर मधिम नहीं कोई। सो मधिम मुख राम न होई।।”

अतः कबीर ने जन्म से नहीं बल्कि कर्म से मनुष्य की पहचान की है। हीन और कोई नहीं वह है जो “राम” अर्थात् परमात्मा की भक्ति नहीं करता है। कबीर जातिगत वैषम्य को मिटाने के पक्ष में थे इस संदर्भ में उनकी कुछ पंक्तियाँ इस प्रकार हैं -

“ एक बूँद एकै मल-मूत्र, एक चाम एक गूदा।

एकै ज्योती सब उतपन्ना, को बाभन को सूदा।”

कबीर साहब ने धर्म के नाम पर किये जाने वाले आडम्बर जैसे तिलक, जटा, माला, अजान आदि का विरोध किया है।

“ना जाने तेरा साहब कैसा है ? ”

मुल्ला होकर बांग जौ दैवे, क्या तेरा साहब बहरा है।

चिउंटी के पग नूपुर बाजे, सो भी साहब सुनाता है।

माला फेरी, तिलक लगाया, लम्बी जटा बढ़ाता है।

अंतर तेरे कुफर-कटारी, यो नहीं साहब मिलता है।”

इसके साथ ही कबीर दास जी ने बड़ी निर्भयता के साथ हिन्दू मुस्लिम दोनों धर्मों के लोगों में व्याप्त जाति-भेद, आडम्बर तथा पाखण्ड की कलई खोलते हुए कहा है कि -

“ अरे इन दोऊन राह न पाई।

हिन्दू अपनी करे बडाई , गागर छुअन न देई।

बेश्या के पायन तर सोवें, यह कैसी हिन्दुआई।

मुसलमान के पीर औलिया, मुर्गी-मुर्गा खाई।

खाला केरी बेटी ब्याहै, घर ही में करै सगाई।

कबीर साहब मुर्ति पूजा के एकदम खिलाफ थे। उन्होंने मूर्ति पूजा करनेवाले आम आदमी को फटकार कुछ इस प्रकार लगाई है

“पाहन पूजै हरि मिलै, तो मैं पूजूँ पहाड़।
तासी भली घर की चाकी, फीस खाए संसार।”

इतना ही नहीं उन्होंने समाज में प्रचलित बलिप्रथा अर्थात् पशु पीडा का विरोध करते हुए ब्राम्हणों और धर्म के ठेकेदारों की भर्त्सना किया है।

“जीव बधत अरु धर्म कहत हैं अधरम कहाँ है भाई। आपने तो मुनिजन है बैठे, कासिन कहौ कसाई।”
तथा

दिन भर रोजा रहत हैं, रात हनत हैं गाय।
एक हत्या एक बन्दगी, कैसे सुखी खोदाय

आज वन्य जिवों के संरक्षण हेतु कानून बन चुका है। अनेक सरकारी, गैर सरकारी संगठन भी पशु उत्पीडन को रोकने के लिए तरह-तरह के सराहनीय प्रयास कर रहे हैं। परंतु कबीर ने प्राणियों के प्रति अपनी चिंता सैकड़ों वर्ष पहले व्यक्त कर दी थी। कबीर साहब ने धर्म को नहीं बल्कि, धर्म के नाम पर होने वाले बाहयाचार तथा तीर्थाटन आदि को अनावश्यक माना है। इस संदर्भ में उनकी कुछ पंक्तियाँ इस प्रकार हैं -

“देव पूजि-पूजि हिन्दू मुये, तुरुक मुये हज जाई।
जटा बाँधि जोगी मुये, इनमें किन्हु न पाई।”

कबीर दास जी ने जीवित माता-पिता की सेवा तथा सम्मान न करने वाले पुत्रों को भी खूब लताड़ा है। उन्होंने उन पुत्रों की खिल्ली भी उड़ाई है जो जीवित माता-पिता की कोई परवाह नहीं करते परन्तु उनकी मृत्यु के बाद मृतात्मा के नाम पर पिण्डदान और मृत्युभोज आयोजित करते हैं -

“जीवित पित्रहि मारहिं डंडा, मुवां पीछै घालै गंगा।
जीवित पित्र कूं अन्न न ख्वावै, मूवां पाछे प्यंड भरावै।
जीवित पित्र कूं बोले अपराध, मुवा पीछे देहि सराध।
कहै कबीर मोहि अचरज आवै, कौआ खाइ पित्र क्यो पावै?”

इस तरह कबीर ने श्राध्द कर्म तथा मृत्युभोज का कड़ा विरोध करते हुए वरिष्ठ नागरिकों के प्रति सहानुभूति, समता तथा सम्मान का भाव प्रदर्शित किया है। यह बड़े दुःख की बात है कि आज हमें बुजुर्गों की देख-देख के लिए कानून बनाने पड़ रहे हैं क्योंकि हमारी संवेदनहीनता बूढ़ों माता-पिता को वृध्दाश्रम की राह दिखाती है। ऐसे में कबीर साहब की पंक्तियाँ आज और अधिक प्रासंगिक होती हैं।

संत कबीर ने शारीरिक स्वच्छता की तुलना में सदैव अन्तःकरण की शुध्दता पर जोर दिया है। उनका मानना है कि, गंगास्नान या तीर्थस्थान से मनुष्य को मुक्ति नहीं मिल सकती, यदि ऐसा होता तो हमेशा गंगा नदी में रहने वाली मछलियाँ सबसे पहले मुक्ति का अधिकार पा जाती।

संत कबीर ने मनुष्य को पाप की कमाई से दूर रहने की नैतिक सलाह दी है—

“कुटुम्ब कारण पाप कमावै, तू जाणै घर मेरा।
सब मिलै आपं स्वारथ साधै, दूहाँ नहीं काउे तेरा।।”

आज भारतीय समाज में आय से अधिक संपत्ति रखने की प्रवृत्ति को कानून की दृष्टि में अपराध समझा जाता है।

अतः कबीर का यह नैतिक संदेश आज भी हमारा दिशा-निर्देश करता है।

कबीर दास जी के अनुसार व्यक्ति की पहचान उसकी जाति से नहीं बल्कि उसके ज्ञान विवेक से होनी चाहिए। तभी तो प्रस्तुत दोहों में वह “ज्ञान” को अधिक मूल्यवान तथा उपायोगी घोषित करते हैं। -

“जाति न पुछो साधु की, पूछ लीजिए ज्ञान।

मोल करो तलवार का, पड़ी रहने दो म्यान।।”

निष्कर्ष रूप से यह कहा जा सकता है कि, अशिक्षित होते हुए भी कबीर साहब के भीतर व्यावहारिक ज्ञान का एक विशाल भण्डार मौजूद था। अपने इसी विपुल अनुभव संसार के माध्यम से वह हमारे समाज की नब्ज पर हाथ रखते थे। यही कारण है कि उनकी “आँखो देखी” शुष्क ज्ञान की पोटली उठाये पंडितों की ‘कागज लेखी’ पर हमेशा भारी पड़ती थी।

कबीर के समय में धर्म, दर्शन, कला, संस्कृति तथा राजनीति सभी का सामंतीकरण हो गया था। अतः वह एक जाति विहीन, वर्ण विहीन तथा शोषण विहीन समाज का निर्माण चाहते थे, ताकि आम आदमी को समाज के इस शोषण से मुक्ति मिल सके।

कबीर दोनों धर्मों के द्वन्दों को समाप्त कर हमारे समाज में एक नया धर्म (जिसे वह मानव धर्म कहा करते थे।) प्रचारित करते रहे। उनका मानना था की, परमात्मा मंदिर, मस्जिद, काबे- कैलाश में नहीं बल्कि, मनुष्य मात्र के भीतर विराजमान हैं। इस संदर्भ में उनकी कुछ पंक्तियाँ इस प्रकार हैं।-

“मन मथुरा, दिल द्वारिका, काया कासी जाणि।

दसवां द्वार देहरा, तामै जोति समाणी।।”

अतएव यह कहा जा सकता है कि, कबीर प्रासंगिक है और सदैव बने रहेंगे तथाकथित समाज सेवकों एवं सुधारकों को कबीर से प्रेरणा लेनी चाहिए।

संदर्भग्रंथ :

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सुशिक्षित वर्ग द्वारा हिन्दी की उपेक्षा

कुलदीप शर्मा : शोध छात्रा, जे. जे. टी. विश्वविद्यालय, राजस्थान

ये सच है कि अनेक धर्मावलम्बियों ने हिन्दी पर आक्रमण किये। हिन्दी को वे अदब की भाषा नहीं कहते। वास्तव में मुंशी सदासुख लाल, इंशा अल्लाखाँ, लल्लूलाल और सदलमिश्र ने ही हिन्दी की बुनियाद रखी। उन्होंने ही इसे संस्कृतमय बनाया इतिहास की भाषा कहा। सच तो ये है हिन्दी ही भारत की जन भाषा है, लोक भाषा हैं, संस्कारों की बोली हैं, लेकिन अफसोस यह है कि! “घर के भेदी लंका ढाये” की कहावत को चरितार्थ करने वाले जयचंद और विभीषण भी इसी भारत भूमि पर मौजूद हैं। हाँ, यदि ये कहा जाय — “घर के चिराग ने ही जला दिया घर का आशियाँ” तो कोई अतिशयोक्ति नहीं होगी।

आज जो हिन्दी उपेक्षा के कटघरे में खड़ी हैं उसी हिन्दी में अमीर खुसरो ने अपनी मुकरियाँ लिखी थीं जो जग प्रचलित हैं पर इतिहासकारों ने हिन्दी के बारे में भ्रम फैलाया और उसको शक के दायरों में ला खड़ा किया तथा हिन्दी सुशिक्षित समाज से उपेक्षित हो गई। जबकि एक समय व्यासदेव कृत भागवत के दशमस्कंध की कथा को चर्तुभुज मिश्र ने हिन्दी के ही दोहे और चौपाईयों का रूप दिया। यहाँ तक कि हिन्दुस्तान के मुसलमान, सिन्धी, पंजाबी सभी तो हिन्दी भाषा बोलते नजर आते हैं। फिर हिन्दी की उपेक्षा क्यों? अपने घर के भंडार शब्दों से भरे पडे हैं पर सुशिक्षित मनुष्य ख्याति प्राप्ति की लालसा से लिप्त घूमता फिर रहा हैं दूसरे देशों में दर-दर शब्दों की भीख माँगता फिर रहा हैं।

सच तो यह है उन्हें संसार की थाली में अधिक घी नजर आ रहा है और हमारा सुशिक्षित समाज विदेशी भाषा का गुलाम बन बैठा हैं। वे ही लोग हैं, जिन्हें भारत वर्ष अपना प्रतीत नहीं होता या वे देश की माटी से प्यार नहीं करते। देश के इन लाडलों को मैं बता देना चाहती हूँ कि “पराधीन सपनेहू सुख नाही” सीताराम चतुर्वेदी ने तो यहाँ तक कहा हैं कि हिन्दी भाषा ने इस भारत भू को मूकों और गूँगों की विराट बस्ती बनने से बचा लिया। डॉ. टी. सी. टी. कहते हैं हिन्दी तो भारत माँ के माथे की बिन्दी है, सुहाग का सिन्दूर हैं और अफसोस तो ये है कि हमारे ही सुशिक्षित वर्ग ने इसे वैज्ञानिक भाषा मानने से नकार दिया। लेकिन, इसमें भी कोई दो राय नहीं कि हिन्दी हिमालय की चोटी से गूँजती हैं तो हिंद महासागर की लहरों में हिलोरे लेती हैं।

अंग्रेजी तो घुसपैठियों और विदेशी आक्रांताओं से प्राप्त हुई हैं और हमारे देश में आकर इसके काले बादल मंडराने लगे और उसी धुँआ की चपेट में हमारा सुशिक्षित वर्ग आ गया। मैं अंग्रेजी भाषा के कतई खिलाफ नहीं हूँ पर दोस्तों उस भाषा से गुलामी की बू आती है जो गुलामी हमें कतई बरदाश्त नहीं है; माना अंग्रेजी हमें नयापन देती हैं लेकिन यह भी सच है कि पढा लिखा वर्ग अंग्रेजीयत में गर्व महसूस करने लगा है, तो अध्यापक व सुशिक्षित वर्ग इसे छोड़ने पर भयभीत से नजर आते हैं! उन्हें पैरों तले की जमीन खिसकती सी नजर आती है और वे इन शब्दों का सम्बल लेते हैं, क्या हिन्दी में परिभाषिक शब्द नहीं हैं? पर मैं तो ये कहूँगी हिन्दी एकता का सूत्र हैं। वे कहते हैं अंग्रेजी से अन्तर्राष्ट्रीय कार्य में सुविधा होती हैं विदेशी सम्बंध आसानी से बनते हैं अन्तर्राष्ट्रीय ज्ञान प्राप्त होता हैं।

लेकिन सोचिए अन्तर्राष्ट्रीय व्यवहार पर छलांगें लगाने वालों ने देश के बारे में क्या सोचा? हमारे देश में हिन्दी भाषा कम प्रांत हैं पर हर प्रांत की मूल भाषा हिन्दी हैं, यह हर क्षेत्र का अभिमान हैं।

माना हमारे ज्ञान का क्षितिज विस्तृत होगा अन्य भाषाओं से हम कूप मंडूक तो नहीं हैं फिर भी स्वतंत्र देश में इन बातों का क्या अर्थ? वास्तविकता यह है कि देश की अपनी भाषा से देश बलिष्ठ होता है उँचे से उँचा ज्ञान उपार्जित कर सकता है। अपना व अपने देश का विस्तार हो सकता है। अपनी निजी भाषा से ही आत्मीयता बढ़ती हैं। क्योंकि —

जिसको न निज गौरव तथा देश पर अभिमान हैं

वह नर नहीं, नर-पशु और मृतक समान हैं।

इसीलिए सुशिक्षित वर्ग ने जो अन्य भाषाओं को अपनाकर मानसिक दासता प्राप्त की हैं, हीन भावों को जन्म दिया हैं,

आत्मविश्वास में हीनता प्रदान की हैं। उन्हीं पढे लिखे लोगों के हिन्दी भाषा अपनाने से ही देशोद्धार होगा।

पर वे मानसिक चिंता से ग्रस्त हैं। अंग्रेजी का स्थान कौन लेगा? अंग्रेजी जाते ही हम पंगु हो जायेंगे। मैं आपसे पूछती हूँ क्या जहाँ अंग्रेजी नहीं वहाँ काम नहीं होता है? क्या हर देश की अपनी जबान नहीं है? पर अफसोस भारतीय जनता को तो अंग्रेजी के दास बनाये गये थे, जो आज तक रंग ला रहे हैं, लोगों को परदेश में काम न मिलने की शंका है, उनमें पुरानी मनोवृत्ति आज भी कायम है।

तो यह कहती हूँ कि “आज नहीं तो कल हिन्दी सबके सर चढकर बोलेगी और सुशिक्षित वर्ग की हिन्दी के प्रति उपेक्षा हमेशा के लिए समाप्त हो जायेगी” क्योंकि हिन्दी में ही जोड़ने की कडी है और जब इसमें सबको साथ लेकर चलने की क्षमता है तो पर भाषा की गुलामी क्यों?

दक्षिण भारत में हिन्दी का विरोध हुआ पर हिन्दी की सृजनात्मकता ही का परिणाम था कि १८६२ में हमदम पत्रिका हिन्दी में चेन्नई से प्रकाशित हुई तो अन्नधारा, अग्रसंदेश आदि पुस्तको को भी अपनाया गया।

पी. के. मेनन ने कहा है जब केंद्र सरकार ने प्रत्येक कार्यालयों में हिन्दी में कार्यान्वयन का आदेश जारी किया तो वे रिटायर होते हुए भी घर में न बैठ सके और हिन्दी भाषा प्रचार के कार्य में रत हो गये।

हम १४ सितम्बर हिन्दी दिवस के रूप में मनाते तो हैं, बड़े-बड़े भाषण हिन्दी के पक्ष में देते है पर हमारा यही सुशिक्षित वर्ग इस पखवाडे के बाद अंग्रेजी का स्विच ऑन कर लेता है। कथनी और करनी में हम कितना अन्तर रखते हैं यह लज्जास्पद बात है। कहा जाता है। जथा राजा तथा प्रजा तो पहले हमें राजकार्यों में हिन्दी को अपनाना होगा तभी अंग्रेजी की जडें हिल सकेंगी।

यह सच है अंग्रेजों ने अंग्रेजी प्रचार से हमारे संस्कार नष्ट कर दिये पदों के प्रलोभन देकर स्वार्थ परता के कारण अंग्रेजी का गुलाम बना दिया पर राष्ट्रीय एकता अक्षुण्ण है और इसके लिए जरूरी है हिन्दी का आधार, अतः हिन्दी न सिर्फ लोक व्यवहार की भाषा हो बल्कि हिन्दी में कार्य करने पर आन्दोलन जरूरी है।

अन्य भाषाएँ जटिल हैं गुम्फित हैं, पराई हैं जो हमें पराश्रित बनाती हैं और प्रयोग में जटिलता लाती है। न सिर्फ इतना अपितु ये देश की संस्कृति, धर्म, कला, दर्शन, साहित्य, कलात्मकता, अनुभूति, दार्शनिकता, भंगिमा, साहित्यिक प्रवृत्ति को खत्म करती है।

जबकि हिन्दी भाषा वैभिन्य को नियंत्रित करती है। सुशिक्षित वर्ग चाहे जितना हिन्दी की उपेक्षा कर ले पर हिन्दी हमारी मातृभाषा है। सब भाषाओं की जननी संस्कृत की लाडली बेटी है। गांधी जी ने तो यहाँ तक कहा है हिन्दुस्तान में हिन्दी का तिरस्कार यूँ लगता है जैसे घूँघट में छिपी पर भाषा रुपी सौतन को अपनाया जा रहा है। अपने देश में ही अपनी ही भाषा का तिरस्कार असह्य है कहना, उस शिक्षित वर्ग से जो भारतीय भाषा से सौतेला व्यवहार कर रहे हैं और जाने अनजाने देश को गर्त की ओर ले जा रहे हैं।

अन्त में पुनः क्षमा याचना करती हूँ अपने सुशिक्षित समाज से और बस यही कहना चाहूँगी कि देश की उन्नति हिन्दी भाषा की उन्नति में ही निहित है।

संदर्भ ग्रन्थ:

- १) हिन्दी साहित्य का इतिहास: आचार्य रामचंद्र शुक्ल
- २) हिन्दी साहित्य का इतिहास: डॉ शिवकुमार शर्मा
- ३) नवभारत टाइम्स, दैनिक हिन्दी समाचार पत्र, मुम्बई १५/९/१९९६
- ४) रामचरित मानस: तुलसीदास, गीताप्रेस, गोरखपुर
- ५) दैनिक जागरण, दैनिक हिन्दी समाचार पत्र, लखनऊ, १८/९/२०१०

भारतीय शिक्षण व इतिहास

श्री. महेश आर. पाटील : (शारीरिक शिक्षण संचालक) अ.र.भा. गरुड कला व वाणिज्य व विज्ञान महाविद्यालय, शेंदुर्णी ता. जामनेर जि. जळगांव

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गोषवारा :

भारताने २१ व्या शतकात पदार्पण करताच भारताचा उल्लेख हा जगातील पाचवी महासत्ता म्हणून केला जात आहे. कोणत्याही देशाला जागतिक स्तरावर कार्य करत असतांना वेगवेगळ्या निकषावर उतरावे लागते. त्या निकषामध्ये शिक्षण हा एक निकष आहे. शिक्षण ही प्रक्रिया विशिष्ट तत्वज्ञानावर आधारित आहे. वेगवेगळ्या संस्कृती, वेगवेगळे धर्म, पाश्चिमात्य देशाची आक्रमणे आणि त्यांच्याशी झालेला स्वातंत्र्याचा संघर्ष या सर्व अवस्थेतुन भारतीय शिक्षण गेले आहे. भारतीय शिक्षणाचा इतिहास हा एक दिर्घ कालखंडाचा इतिहास आहे. विद्यापीठे ही स्वायत्ता असल्याने तथापि देशातील शिक्षणशास्त्र अभ्यासक्रमात सुसुत्रता आणि समन्वय राहावा म्हणून S.T.E. च्या अभ्यासक्रमाचा आराखडा स्विकारण्यात आला.

प्रस्तावना :- भारतीय शिक्षण हे परिवर्तनशील सतत चालणारी प्रक्रिया स्वयंनिर्मित प्रक्रिया, सर्वांगण विकास, अंतरक्रिया या प्रक्रियेतुन पाझरत आले आहे. भारतीय शिक्षण प्रणाली ही वैदिक काळापासून सुरु होती. त्यानंतर बौध्दकालीन, जैनकाळ, मुस्लीमकाळ, ब्रिटीशकाळ आणि स्वातंत्र्योत्तर काळ असा प्रवास करत २१ व्या शतकात येते. हा कालखंड २०० ते २५०० वर्षांपेक्षा अधिक आहे.

१) वैदिक काळातील शिक्षण : भारतीय शिक्षणाचा इतिहासातील पाया म्हणजे वैदिक संस्कृती होय. वैदिक म्हणजे वेदाचे पठण करणारे, वेद व उपनिषदे यांनी भारतीय संस्कृतीवर प्रभाव टाकला आहे. हया काळात ब्रह्मचर्या, ग्रहस्थाश्रम, संन्यासाश्रम, वनाप्रस्थाश्रम हे चार आश्रम महत्वाचे आहे.

इवेदवाङ्मय – एकंदर १८ पुराणापैकी, वायू, ब्रह्मांड, मत्स्य व विष्णू इ. पुराणे महत्वाची आहेत. वेदवाङ्मयात चार वेद महत्वाचे आहेत. १) ऋग्वेद - यात एकुण १०५५२ ऋचा मिळून एक सुक्त होते. अशी १०२८ सुक्ते आहेत. १० भागात विभागली आहेत. २) यजुर्वेद - यज्ञाच्या वेळेस म्हणावयाच्या मंत्रांना 'यजूस' म्हणतात. हया वेदांचा काही गद्य तर काही पद्य म्हणून आढळून येतो. ३) सामवेद – सामवेदास ऋग्वेदातील मंत्रांचा चाळीस संग्रह म्हणतात. या १५४९ ऋच्या आहेत. ४) अथर्ववेद - या वेदात अथर्वण व अंगिरस हे दोन मंत्र आढळून येतात. या वेदाच्या शैलिक व पिपलाद या दोन शाखा आहे. यांची विभागणी संहिता, अरण्यके, ब्राम्हणग्रंथ, उपनिषदे, सुग्रंथ वेदांग, महाकाव्य, पुराणे, मनुस्मृती या भागात केलेली आहे.

वैदिक संस्कृतीतील संस्कार गर्भाधात पुसवन समिन्तो जातक्रम च। नामक्रिया निष्क्रमो न्तमप्रशनव पत क्रिया।। कणवेधो व्रतादेशो वेदांर माफियाविविध केशान्तः स्मानमुद्द।हो विवाहग्नि परिग्रह। श्रेताग्निसंग्रहघेति संस्कार! षोडशः स्मृता।।

वैदिक काळातील विविध पैलू : वेद म्हणजे ज्ञान हेच शिक्षण होते. गुरुकुल पध्दत याच काळातील वैदिक ज्ञान परंपरा मुरवोदगत करणे व चिंतन मनन करणे तसेच स्त्रीयांना शिक्षण घेण्याचा अधिकार होता.

प्राचीन शैक्षणिक केंद्र :- १) गुरुकुल २) राजधानी ३) निर्वस्थ ४) शैक्षणिक केंद्र

प्राचीन काळातील विद्यापीठ :- अ) नालंदा विद्यापीठ २) तक्षशिल विद्यापीठ ३) काशी विद्यापीठ ४) विक्रमादित्य विद्यापीठ ५) वल्लभी विद्यापीठ ६) गुणशिला विद्यापीठ ७) कुंडीनपुर विद्यापीठ ८) उदतपुरी महाविघर इ.

२) बौध्दकालीन शिक्षण : इ. स. पुर्व ६०० ते १०० गौतमबुध्दास वैशाख पौर्णिमेच्या दिवशी 'नेरंजरा' नदीच्या काठावर असलेल्या उरुवेल्या या ठिकाणी दिव्य ज्ञान प्राप्त झाले म्हणून त्यांना बुध्द म्हटले जाते. हा कालखंड प्रभावी आणि तात्विक विचारांना प्रेरणा देणारा कालखंड होय. या काळात वेद, बळी देणे चातुर्वर्ण व आश्रम अवस्था यांना विरोध केला व

सर्वसामान्य जनतेला सर्व प्रकारचे शिक्षण देण्यास सुरुवात झाली. या काळात “पब्वजा” विधी करावा लागे. गौतम बुध्दानी चार आर्यसत्ये सांगितली आहेत. तसेच दुःखाचे निवारण रिण्यासाठी अष्टांगिक मार्ग सांगितले आहेत. जीवन जगताना पंचशिल नियमाचे पालन केले गेले पाहिजे. तसेच त्रिरत्ने, प्रज्ञा शिल व करुणा सांगितले आहेत.

या काळात स्त्रियांना सुध्दा शिक्षण होते. शिक्षणामध्ये पाली हे शिक्षणाचे माध्यम होते. प्रवेशासाठी वय किमान आठ वर्ष असून ३० व्या वर्षापर्यंत शिक्षण मिळत असे. सामुहिक शिक्षण पध्दतीचा अवलंब करण्यांत येत असे. या काळात पाठांतर, व्याख्यान, वाद-विवाद, प्रवास, चर्चा, अनुकरण, विवरण या अध्यापन पध्दतीचा उपयोग करीत असे.

३) **जैन कालीन शिक्षण** : जैन धर्माने संरक्षित वृत्ती जोपासली, स्वतःचा संयम व शांतता भंग न करता जैन धर्म टिकवुन ठेवला. भारतीय शिक्षणाच्या इतिहासात जैन धर्मातील तत्वज्ञान व शिक्षण हा एक टप्पा समजला जातो. उदा. चारीत्र्यसंवर्धन, गुरुशिष्य संबंध ई. जैन शिक्षणाची निमनी २४ वे धर्मगुरु वर्धमान महावीर यांनी केली. या शिक्षणात मुक्ती पदाची प्राप्ती हेच ध्येय घेत जैन धर्मात इसवी सन पूर्व तिस-या शतकात श्र्वेतांबर व दिगंबर असे दोन पंथ निर्माण झाले.

४) **मुस्लीम काळातील शिक्षण** : भारतात मदरसांची स्थापना मुहम्मद घौरी याने प्रथम केली. तर दिल्ली येथे पहिला मदरसा अल्लमराने स्थापन केला. तसेच सुलतान नसिरुद्दीन मुहम्मद (इ. स. १२४६-१२६५) यांच्या नावाने नसिरिया मदरसा बल्बनने सुरु केला. तसेच फिरोझशाहाने शिक्षण देणारे तीस मदरसे स्थापन केली व मदरशाहात वाचन. धर्मशास्त्र (कुराण) लेखन, गणित व कुराणातील “सुरा- व ‘अरबी व्याकरणाचे’ प्राथमिक धडे यांचा समोवश होता. मात्र अकबराने मुस्लीम पध्दतीला सर्वप्रथम गतिमान व नाविन्यपूर्ण स्वरुप प्राप्त करुन दिले. त्याने भारतीय तत्वज्ञान, राज्यशास्त्र, ज्योतिषशास्त्र, खगोलशास्त्र, परिणामशास्त्र, कृषीशास्त्र, नितीशास्त्र, गृहशास्त्र हे विषय समाविष्ट केले. त्यांनी इ. स. १५८० मध्ये हिंदू व मुस्लीम या दोन्ही शैक्षणिक संस्थांना अनुदान देणे सुरु केले.

ईस्लाममध्ये मुलगा ४ वर्ष ४ महिने ४ दिवसाचा झाल्यानंतर बिसमिल्ला हा विधी करुन मुलांना ‘मकतब’ मध्ये प्रवेश दिला जात असे. त्यावेळी कुराणाच्या ५५ व्या प्रकरणातील काही आयात व कुराणाचे ८७ वे प्रकरण ठेवुन आयात वाचुन मुलास बिसमिल्ला शब्द उच्चारुन त्यांचे शिक्षण सुरु झाले.

अभ्यासक्रमात वेगवेगळ्या बिघे सोबत तफसीर, हदीस, फीक व कीरत, हीब्ज, आणि फतवा या बाबीचा सखोल अभ्यास करत मुस्लीम कालखंडात दिल्ली, आग्रा, जोनपुर व बींदर हे शैक्षणिक केंद्र ही शैक्षणिक केंद्रे होती.

शिक्षण व्यवस्थेत संतांचे योगदान :

१) संत ज्ञानेश्वर – महाराष्ट्राचे श्रध्दास्थान यांचा जन्म इसवी सन १२७५ मध्ये झाला. त्यांनी १२९० मध्ये ज्ञानेश्वरी ही भगवद्गीतेवरील टीका लिहिली तसेच चांगदेवपासष्टी, अभंगाची गाथा, अमृतानुभव हे ग्रंथ लिहले. ज्ञानेश्वरीत १८ अध्याय आहेत तसेच ओव्यांची संख्या ९००० आहेत. त्यांनी तत्वज्ञान, काव्य, आत्मानुभुतीचा संग साधन संस्कृतला अवगुंडीत करत मराठी भाषेत गोक्षाचीद्वारे सर्वांना उपलब्ध करुन दिला.

संत ज्ञानेश्वराचे सुविचार – कां भूमीचे मादिव। सांगे कोंभाचि लवलव।

नाना आचार गौरव। सकुलनीचे।।

२) संत नामदेव - यांचा जन्म १२७० मध्ये पंढरपूर येथे झाला. इसवी सन १२९१ मध्ये नामदेव व ज्ञानेश्वर यांची आळंदी येथे भेट झाली त्यांच्या सांगण्यावरुन औढयानागनाथ येथे विसोबा खेचर यांच्याकडून गुरुपदेश घेतला. संत नामदेवानी रचलेली ६१ पदे ही ‘ग्रंथसाहिब’ या शीख धर्माच्या सर्वोच्च ग्रंथात नामदेवजी की मुखवाणी या नावाने समाविष्ट आहेत. त्यांनी स्वतःची शिरायपरंपरा त्यांनी निर्माण केली. संत नामदेव समतावादी विचारांचे होते. भारतीय संविधानाने समता हे मूलभूत तत्व मानले.

संत नामदेवाचे सुविचार – नाचू किर्तनाची रंगी।

ज्ञानदीप लावू जगी।।

- ❖ संत एकनाथ (१५०४-१५९९) – संत एकनाथांनी चतुः श्लोकी भागव, रुख्मिणी स्वयंवर, एकनाथी भागवत आणि भावार्थ रामायण या ग्रंथाची मराठी भक्तीरचना केली. व भारुडे रचली ते समाजसुधारक निर्माण करणारे संत होते.
- ❖ संत एकनाथांचे सुविचार - ज्ञान म्हणजे केवळ स्वतःच्या आनंदाची व मोक्षाची साधना नसुन लोकांच्या हिताचाच त्यात अंतर्भाव असला पाहिजे.
- ❖ संत तुकाराम-सन १५९८-१६४९ तुकाराम म्हणजे चालते बोलते विद्यापीठ होय. त्यांचा जन्म १५९८ मध्ये देहू येथे झाला. त्यांनी अनेक अभंग रचली या अभंगांची संख्या ५००० च्या जवळपास आहे. त्यांनी आंग अतिशय प्रगल्भ व सुविचारात्मक आहेत. त्यांनी सामाजिक प्रबोधनाचे कार्य अतिशय चांगले केले. त्यांनी त्यांचे अभंग समुण व निर्गुण हे दोन पैलू दाखविली.
- ❖ संत तुकारामांचे सुविचार – संकलांच्या पाया माझे दंडवत । आपुलाले चित्र शुध्द करा.
- ❖ संत कबीर – मानवी स्वभावातच नैसर्गिक विविधता आहे. जाती भेद व्यर्थ आहेत. हृदयाची तळमळ ही इश्वराजवळ जाण्याचा सर्वोत्तम मार्ग आहे.
- ❖ सुविचार – मृगनामी कस्तुरी बसे १ मृगल भटकत जंगल जाय सबके हृदय मे राम बसत है । पर समझे न कोय ।।
- ❖ ब्रिटिशकालीन शिक्षण – भारतात ब्रिटिशांचे इस्ट इंडिया कंपनीच्या माध्यमातुन आगमन होण्यापूर्वी स्थानिक शाळांना व्हर्नाक्युलर किंवा नेटीव्ह शाळा या नावाने संबोधले जात असे. सनदी कायदा १९१३ मधील कलम ४३ च्या स्पष्टीकरणानुसार लॉर्ड मेकॅलेचा जाहीरनामा स्पष्ट झाला. मेकॅलेने शिक्षणाचा पाणर सिध्दांताचा पुरस्कार केला. हा सिध्दांत विषमतेला चालना देणारा होता.
- ❖ बुडचा १८५४ चा खलिता :- त्यामध्ये युरोपीयन वाङ्मय। विज्ञान व तत्वज्ञानाचा प्रसार, प्रौर्बाल्य शिक्षणाचा प्रसार मुंबई, मद्रास व कलकत्ता येथे विद्यापीठाची स्थापना मात्र शिक्षणाचे माध्यम इंग्रजी होते.
- ❖ हंटर कमिशन :- १८८२ (भारतातील पहिली आयोग)
भारतीय शिक्षणाच्या संदर्भात मुलभूत चिकीत्सा करणारा आणि सर्वच विषयांना स्पर्श करणा-या शिफारशी हंटर आयोगाने केल्य आहेत. स्त्रियांचे शिक्षण, मागासवर्गीयांचे शिक्षण / मुस्लीमांचे शिक्षण यांचा विचार करण्यात आला व खाजगी संस्थान। प्रोत्साहन दिले. हंटर आयोगासमोर म. फुलेंनी दिलेले निवेदन अत्यंत महत्वाचे समजले जाते.
- ❖ भारतीय विद्यापीठ शिक्षण आयोग १९०२ :- १९०१ च्या सिमला शिक्षण परिषदेमध्ये अतिशय गुप्त पध्दतीने १५० ठराव मंजूर करुन भारतीय शिक्षण क्षेत्राच्या नवीन दिशा देण्याचा प्रयत्न गव्हर्नर जनरल लॉर्ड कर्झन यांनी २७ जाने. १९०२ रोजी भारतीय विद्यापीठ शिक्षण आयोग १९०२ स्थापना केली.
- ❖ भारतीय विद्यापीठ कायदा १९०४ :- लॉर्ड कर्झन हा पाश्चिमात्य शिक्षणाचा पुरस्कर्ता होय. ११ मार्च १९०४ रोजी त्याने आपले शैक्षणिक धोरण जाहीर केले. त्यात भारतात प्राथमिक शिक्षणाचा विकास करणे. शाळांना अनुदान देणे, तांत्रिक शिक्षण देणे त्यात मातृभाषा शिक्षण व्यवस्थेत एकसुत्रीपणा आणणे.
- ❖ कलकत्ता विद्यापीठ आयोग १९१९ :- (सॅन्डलर आयोग १९१७) सन १९१० मध्ये नामदार गोपाळकृष्ण गोखले यांनी कायदे मंडळात ठराव मांडुन देशात प्राथमिक शिक्षण सक्तीचे व मोफत देण्याच्या दृष्टीने सरकारने प्रयत्न करावा अशी भूमिका मांडली.
- ❖ राष्ट्रवाद आणि राष्ट्रीय शैक्षणिक चळवळ :- भारतात ब्रिटिशांच्या साम्राज्यवादी धोरणाच्या विरोधातुन राष्ट्रीय शिक्षण चळवळ सुरु झाली.

- १) स्वामी दयानंद सरस्वती यांचे शिष्य - लाला लजपतराय, लाला मुन्शीराम यांनी १८८६ मध्ये पंजाब येथे दयानंद अँग्लो वैदिक महाविद्यालय व १९०२ मध्ये हरिद्वार येथे गुरुकुल कांगडी विद्यापीठ स्थापन केले.
 - २) शिक्षणात गायन, नृत्य, चित्रकला, औद्योगिक शिक्षण व हस्तव्यवसाय यांना स्थान रहावे म्हणून १९०१ मध्ये रविंद्रनाथ टागोर यांनी शांतीनिकेतन नावाची संस्था सुरु केली.
 - ३) महाराष्ट्रात महात्मा फुले यांनी १९४८ मध्ये मुलींची पहिली शाळा स्थापन केली.
 - ४) महर्षी डॉ. धोंडू केशव कर्वे यांनी १९०७ पुणे येथे मुलींची शाळा व ३ जून १९१६ रोजी महिला विद्यापीठ स्थापन केले.
 - ५) स्वामी विवेकानंदांनी रामकृष्ण मिशनची स्थापना कोलकत्ता येथे केली.
 - ६) महाराष्ट्रात पुणे येथे १९२१ साली टिळक महाराष्ट्र विद्यापीठाची स्थापना झाली. कर्मवीर भाऊराव पाटील यांनी १९१८ मध्ये रयत शिक्षण संस्था स्थापन केली.
- ❖ सरफिलीफ हरटॉग समितीचा अहवाल १९२६ - या समितीने प्रथमच शिक्षण पध्दतीची मुख्य समस्यांचा चिकित्सक अभ्यास करून शिफारशी केल्या आहेत.
 - ❖ वर्धा शिक्षण आयोग (मुलेद्योगी शिक्षण योजना १९३७) –वर्धा शिक्षण परिषदेत डॉ. जाकीर हुसेन यांच्या अध्यक्षतेखाली एक समिती नेमण्यात आली. महात्मा गांधी यांचा शैक्षणिक प्रयोग म्हणून मुलेद्योगी शिक्षणप्रणाली महत्वाची आहे. हया प्रणालीत उद्योग, श्रमप्रतिष्ठा, समाजसेवा, व्यवहारीक शिक्षण, राष्ट्रभाषा, सर्वधर्म समभाव, मातृभाषा इत्यादी तत्व आढळून येतात.
 - ❖ शैक्षणिक अहवाल (सार्जन्ट अहवाल १९४४) – सन १९४४ पासून पुढे ४० वर्षे भारतातील शिक्षणाचे नियोजन करण्यासाठी प्लॅन करण्याचे कार्य त्यांच्याकडे सोपविले.
 - ❖ स्वातंत्र काळातील भारतीय शिक्षण :- शिक्षण हे व्यक्तींच्या सर्वांगीण विकासासाठी महत्वाचे असून स्वातंत्र्य, समता, बंधुभाव रुजवून सामाजिक प्रबोधनकार्य शिक्षणाच्या माध्यमातून करावयाचे.
 - ❖ विद्यापीठ शिक्षण आयोग (डॉ. राधाकृष्ण आयोग) १९४८-४९ :-
स्वातंत्र्योत्तर काळात केंद्रिय शिक्षण सल्लागार मंडळाने व आंतरविद्यापीठ शिक्षण मंडळाने केलेल्या विनंतीनुसार ४ नोव्हेंबर १९४८ रोजी विद्यापीठ आयोग नेमण्यात आला. विद्यापीठ शिक्षणाचा पाया विद्यापीठ शिक्षण आयोगाने घातला.
 - ❖ डॉ. लक्ष्मणस्वामी मुदलीयार १९५२-५३ :- यात माध्यमिक शिक्षणाचे ध्येय पाठ्यपुस्तके, प्रशिक्षण, शा. शिक्षण, शिक्षण हया बाबी महत्वाच्या होय.
 - ❖ भारतीय शिक्षण आयोग (१९६४-६६ डॉ. दौलतसिंह कोठारी आयोग):- हा आयोग अत्यंत महत्वाचा समजला जातो. १०+२+३ हा आकृतीबंध स्विकारला आहे. हया अभ्यासक्रमात सामान्य व प्रगत स्तरावर वर्गीकरण कार्यानुभव व्यवस्था, शाळा सुधार कार्यक्रम, अर्धवेळ शिक्षणाची व्यवस्था, शाळा समुह योजना, शैक्षणिक गुणवत्ता, नैतिक व आध्यात्मिक मुल्यांची रुजवत इत्यादी शिफारशी केल्या आहेत.
 - ❖ राष्ट्रीय शैक्षणिक धोरण १९८६ :- हया धोरणात शिक्षणाचे व्यवस्थापन, शिक्षकाची भूमिका, नवोदय विद्यालय, ऑपरेशन ब्लॅक बोर्ड, राष्ट्रीय स्त्री-पुरुष समानता, पर्यावरणाचे शिक्षण, राष्ट्रीय अभ्यासक्रमात १० गाभाभुत घटक अत्यंत महत्वाचे आहेत.

- ❖ जागतीकीकरणातील भारतीय शिक्षण '- १९८६ च्या शैक्षणिक धोरणात बल करून १९९२ चे सुधारीत धोरण अंमलात आणले गेले.

निष्कर्ष :- शिक्षण हे विविधांगी प्रक्रिया आहे. या प्रक्रियेमध्ये परिवर्तन व अंतरक्रिया यांचा परस्पर संबंध आढळून येतो. देशाच्या राष्ट्रीय विकासात शिक्षणाची भूमिका महत्वाची आहे. मानवाला स्वावलंबी व निःस्वार्थी निर्माण करण्यासाठी शिक्षण महत्वाचे आहे. शिक्षणाने मानवाच्या जन्मजात गुणांना जागृत करून त्यांचे प्रगटीकरण करते. शिक्षण व्यक्तीच्या सर्वांगीण विकासासाठी उपयुक्त आहे.

संदर्भ :

- १) इंडियन एज्युकेशन हिस्ट्री अँड प्रॉब्लेम्स – डॉ. गंगाधर व्ही. कायदेपाटील (चैतन्य पब्लिकेशन, नाशिक)
- २) वाणिज्य व संघटन व व्यवस्थापन – प्राचार्य डॉ. के व्ही. पाटील (हिमालय प्रकाशन)
- ३) सुरेश चौधरी घोण (हिस्ट्री ऑफ डाण्यूकेशन)
- ४) रमण डास. अ. (२००६) वुमन्स डाण्यूकेशन
- ५) व्ही. पी. भोकीब (द हिस्ट्री ऑफ डाण्यूकेशन इन इंडिया

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नांदेड येथील स्वा. रा. ती. मराठवाडा विद्यापीठातील शिक्षणशास्त्र विषयातील संशोधन

प्रा. टेळके सु. भा. : ग्रंथपाल, कला वाणिज्य व विज्ञान महाविद्यालय शंकरनगर

डॉ. धर्मराज वीर : ग्रंथपाल, डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ, औरंगाबाद

सार : प्रस्तुत अभ्यास नांदेड येथील स्वा. रा. ती. मराठवाडा विद्यापीठातील समाजविज्ञान या शोखेतील शिक्षणशास्त्र या विषयातील आचार्य पदवीसाठी केलेल्या शोधप्रबंधाचा सांख्यिकीय अभ्यास करण्यात आलेला आहे.

यासाठी सन १९९४ ते २००७ पर्यंत आचार्य पदवी मिळविण्यासाठी सादर झालेला शोधप्रबंधाचा अभ्यास वर्षानिहाय, भौगोलिक क्षेत्रानिहाय साहित्यप्रकार निहाय, ग्रंथाचे जीवनमान, लेखकाचा प्राधान्यक्रम नियतकालिकाचा प्राधान्यक्रम कालानुरूप भाषानिहाय इ. बाबींचा अभ्यास करण्यात आलेला आहे.

प्रस्तावना :

सर्व सामान्यपणे शिक्षण व संशोधनातील ओळख स्पष्ट करण्याकरिता साधारणता तीन घटक उपयोगात आणले जातात ते तीन घटक म्हणजे.

- १) सामाजिकज्ञान
- २) सामाजिक अभ्यास
- ३) समाजशिक्षण इ.

समाजविज्ञान ही त्यातील एक घटक असून प्रस्तुत अभ्यासासाठी नांदेड येथील स्व. रा. तीर्थ मराठवाडा विद्यापीठास सादर झालेल्या शिक्षणशास्त्र याविषयातील संशोधनाची चर्चा केलेली आहे.

संशोधन पध्दती :

नांदेड येथील स्व. रा. तीर्थ मराठवाडा या विद्यापीठातील शिक्षणशास्त्र या विषयातील सन १९९४ ते २००७ या कालावधीत सादर झालेल्या शोधप्रबंधाचा अभ्यास या संशोधनात केला असून प्रस्तुत संशोधनात संशोधकांनी त्यांच्या शोधप्रबंधाच्या शेवटी दिलेल्या ग्रंथ सुचीचे उद्धरण विश्लेषण करत असताना ग्रंथमिती पध्दतीचा वापर करण्यात आलेला आहे.

व्याप्ती व मर्यादा :

प्रस्तुत संशोधन नांदेड येथील स्व. रा. तीर्थ मराठवाडा शिक्षणशास्त्र या विषयांतील सादर केलेल्या शोधप्रबंधाचे उद्धरण विश्लेषण या अभ्यासाकरिता प्रस्तुत विद्यापीठाच्या अंतर्गत सन १९९४ ते २००७ च्या दरम्यान सादर केलेले शोधप्रबंधाचे अभ्यासासाठी निवड करण्यात आलेले आहेत, हे विद्यापीठ १९९४ मध्ये अस्तित्वात आले असून त्यामध्ये नवनवीन विषयाची सुरुवात करण्यात आली असून जसे की, भूशास्त्र, भौतिकशास्त्र, रसायनशास्त्र, जैविकशास्त्र, वाणिज्य व व्यवस्थापनशास्त्र, ग्रंथालय आणि माहितीशास्त्र, भाषाशास्त्र अशा अनेक अभ्यासक्रमाची सुरुवात केली, त्यापैकीच शिक्षणशास्त्र हा एक विषय देखील विद्यापीठ आणि त्यात अंतर्गत येणा-या विविध महाविद्यालयातून ही शिकविली जातो.

उद्देश :

१. शिक्षणशास्त्र संशोधनात वापरण्यात येणा-या प्रलेखाचे प्रकारनिहाय विश्लेषण.
२. प्रस्तुत संशोधनात वापरण्यात आलेल्या नियतकालिकांचा भौगोलिक क्षेत्रानिहाय आढावा घेणे.
३. उल्लेखित प्रलेखाची भाषावर व कालानुरूप वर्गवारी करणे.
४. उल्लेखित प्रलेखातून लेखन, नियतकालिके यांची प्राधान्यक्रम यादी तयार करणे.

५. ग्रंथ व नियतकालिकाचे जीवनभान मोजणे.

संशोधन :

संशोधन म्हणजे ढोबळ मानाने नविन गोष्टीचा शोध घेणे किंवा जुन्या गोष्टीबद्दल उपलब्ध माहितीचे विश्लेषण व अर्थनिर्वचन करून नविन बाबी प्रकाश झोतात आणणे होय.

वेबस्टरच्या संख्या शब्दकोशानुसार

संशोधन म्हणजे कोणत्याही ज्ञानशाखेत नवीन तत्त्वे अथवा तथ्य शोधण्यासाठी आणि जुनी तत्त्वे किंवा तथ्ये यांचे पुन्हा परीक्षण करण्यासाठी केलेला चिकित्सक अभ्यास होय.

शिक्षणशास्त्र या विषातील संशोधन :

१. प्रलेखाचे प्रकारनिहाय विश्लेषण

अ. क्र.	वाचनसाहित्याचे प्रकार	वाचनसाहित्याची एकूण संख्या	शेकडा प्रमाण
१.	ग्रंथ	१११२	७७.६०
२.	अहवाल	१७०	११.८६
३.	नियतकालिके	८४	५.८६
४.	कोश	२२	१.५४
५.	प्रबंध	२१	१.४६
६.	वृत्तपत्रे	०८	०.५६
७.	वार्षिके	०४	०.२८
८.	निबंध	०३	०.२१
९.	टिकात्मक लेख	०३	०.२१
१०.	चर्चासत्रे	०२	०.१४
११.	मास-मिडिया	०१	०.०७
१२.	भाषणे	०१	०.०७
१३.	पत्रके	०१	०.०७
१४.	लघु शोधनिबंध	०१	०.०७
		१४३३	१००.००

उपरोक्त सारणीचे अवलोकन केले असता असे दिसून येते की, संशोधकांनी निरनिराळे वाचन साहित्य वापरण्याची एकूण सरासरी १०२.३६ एवढी आहे. त्यामध्ये त्यांनी वापरलेल्या एकूण ग्रंथाची संख्या १११२ इतकी असून त्याचे शेकडा प्रमाण ७७.६० टक्के आहे. तर सर्वांत कमी मास-मिडिया, भाषणे पत्रके, लघुशोधनिबंध यांची संख्या ४ आहे तर शेकडा प्रमाणे प्रत्येकी ०.०७ एवढी आहे.

२. भौगोलिक क्षेत्रनिहाय विश्लेषण

अ. क्र.	देशाचे नांव	उल्लेख संख्या	शेकडाप्रमाण
१.	भारत	८७०	७८.२४
२.	अमेरिका	६८	६.११
३.	लंडन	२६	२.३४
४.	सिंगापूर	०३	०.२७

५.	जपान	०१	०.०९
६.	देशाचे नाव नसलेले	१४४	१२.९५

वरील सारणीवरून असे स्पष्ट होते की, देशनिहाय उल्लेखाचे सरासरी प्रमाण १८५.३३ एवढे आहे.

भारतामध्ये प्रकाशित झालेल्या ग्रंथाचा वापर शेकडा ७८.२४ एवढा केला असून त्यानंतर अनुक्रमे अमेरिका, लंडन, सिंगापूर, जपान या देशात प्रकाशित झालेल्या ग्रंथाचा वापर शेकडा अनुक्रमे ६.११ टक्के, २.३४ टक्के, ०.२७ टक्के, ०.०९ टक्के, १२.९५ टक्के एवढे आहे.

३. नियतकालिकांचे भौगोलिक क्षेत्रानिहाय विवरण :

अ. क्र.	देशाचे नांव	उल्लेख संख्या	शेकडाप्रमाण
१.	भारत	८०१	९६.४३
२.	स्थळ न दर्शविलेले	०३	३.५७

यावरून असे स्पष्ट होते की प्रस्तुत संशोधन केवळ भारतामध्ये प्रकाशित झालेल्या (शेकडा प्रमाण ९६.४३ टक्के) नियतकालिकाचा बहुतांश वापर केला आहे.

४. ग्रंथाचे भाषानिहाय विश्लेषण :

अ. क्र.	भाषा	उल्लेख	शेकडाप्रमाण	उल्लेख	शेकडाप्रमाण
१.	मराठी	६९७	६२.३२	६९३	६२.३२
२.	इंग्रजी	३९०	३५.०७	१०८३	९७.३९
३.	हिंदी	२९	०२.६१	१११२	१००.००

वरील सारणीचे निरीक्षण केले असता मराठी भाषेच्या ग्रंथाचा वापर (शेकडा ६२.३२ टक्के) म्हणजे सर्वात जास्त केला असून सर्वात कमी हिंदी ग्रंथाचा वापर (शेकडा २.६१ टक्के) एवढा केलेला दिसून येते.

५. नियतकालिक कार्य भाषानिहाय विश्लेषण :

अ.क्र.	प्रकाशन वर्ष	उल्लेख	शेकडा प्रमाण	उल्लेख	शेकडा प्रमाण
१.	१९६०-१९६४	३७	३.३३	३७	३.३३
२.	१९६५-१९६९	५०	४.५०	८४	७.८३
३.	१९७०-१९७४	६८	६.१२	१५५	१३.९५
४.	१९७५-१९७९	६४	५.७५	२१९	१९.७०
५.	१९८०-१९८४	६१	५.४८	२८०	२५.१८
६.	१९८८-१९८९	१२६	११.३३	४०६	३६.५१
७.	१९९०-१९९४	९५	८.५४	५०१	४५.०५
८.	१९९५-१९९९	१७२	१५.४७	१६७३	६०.५२
९.	२०००-२००९	५३	४.७७	७२६	६५.२९
१०.	२००५-२००९	११	०.९९	७३७	६६.२८
११.	प्रकाशन वर्ष नसलेले	३७५	३३.७२	१११२	१००.००

१११२ १००.००

वरील सारणीवरून असे दिसून येते की, संशोधकांनी १९६० पासून प्रकाशित झालेल्या एकूण ७३७ ग्रंथांचा वापर केला आहे. तर ३७५ असे ग्रंथ संशोधकांनी वापरलेले आहेत की ज्यावर प्रकाशन वर्ष केल्याचे आढळून येत नाही.

६.१ प्रबंधात वापरण्यात आलेल्या ग्रंथांचे जीवनमान :

ग्रंथांचे प्रकाशन वर्ष आणि उल्लेखाच्या साहाय्याने ग्रंथांचे जीवनमान काढण्यात येते. एकूण उल्लेखाच्या मदतीने ग्रंथांचे जीवनमान हे ग्रंथांच्या एकूण वापराच्या ५० टक्के वापर ज्यावेळेस होतो त्यावरून काढण्यात येते.

उपरोक्त सारणीवरून असे स्पष्ट होते की, ग्रंथांचा एकूण वापर हा १११२ इतका झालेला असून त्यांच्या पन्नास टक्के वापर हा ५५६ इतका आहे. ग्रंथांचा पन्नास टक्के वापर हा १९६० ते १९९९ च्या दरम्यान झालेला आहे. म्हणून ग्रंथांचे हाफ-लाइफ हे ३९ वर्ष इतके आहे.

७. नियतकालिकांचे कालानुरूप विवरण :

अ.क्र.	प्रकाशन वर्ष	उल्लेख	शेकडा प्रमाण	उल्लेख	शेकडाप्रमाण
१.	१९८०-१९८५	०३	७.१४	०६	७.१४
२.	१९८६-१९९०	१२	१४.२९	१८	२१.४३
३.	१९९१-१९९५	१०	११.९०	२८	३३.३३
४.	१९९६-२०००	१३	१५.४८	४१	४८.८१
५.	२००१-२००५	३९	४६.४३	८०	८५.२४
६.	प्रकाशन वर्ष नसलेले	०४	४.७६	८४	१००.००

वरील सारणीचे निरीक्षण केले असता असे दिसून येते की, नियतकालिकांची सरासरी काढली असता १४ इतकी आहे संशोधकांनी प्रबंधात वापरलेली नियतकालिकांचा अभ्यास केला असता असे दिसून येते की, इ. स. २००१-२००५ या काळातील नियतकालिकांचा वापर जास्तीत जास्त केलेला आहे त्यांची संख्या ३९ आहे तर शेकडा प्रमाण ४६.४३ टक्के आहे. असे काही नियतकालिके संशोधकांनी वापरलेली आहेत की ज्यावर प्रकाशन वर्षाचा उल्लेख केलेला नाही अशी एकूण ४ नियतकालिके आहेत.

६.२ प्रबंधामध्ये वापरण्यांत आलेल्या नियतकालिकांचे जीवनमान :

संशोधकांनी नियतकालिकांचा वापरलेल्या उल्लेखांपैकी पन्नास टक्के ज्या प्रकाशन वर्षांच्या दरम्यान झालेला असतो त्यावरून नियतकालिकांचे जीवनमान काढता येते. उपरोक्त सारणीवरून असे आढळून येते की, १९८० ते २००५ दरम्यान प्रकाशित झालेल्या ८४ उल्लेखांचा वापर झालेला आहे त्यापैकी पन्नास टक्के वापर हे ४२ टक्के उल्लेखांचा झालेला आहे. म्हणून १९८० ते २००५ दरम्यान नियतकालिकांचा वापर पन्नास टक्के झालेला असल्यामुळे हाफ-लाइफ २५ वर्ष आहे.

७. लेखक प्राधान्य क्रम:

प्रस्तुत संशोधनामध्ये संशोधकांनी वापर केलेल्या ग्रंथांच्या लेखकांचा प्राधान्य क्रमाचा अभ्यास केले असता, त्यामध्ये सर्वात जास्त म्हणजेच जगताप ह ना आणि श्री बापट भा. गो या लेखकांचे ग्रंथ प्रथम क्रमांकावर संशोधकांनी वापरले आहेत. तर दुसऱ्या क्रमांकावर इयत्ता १ ली ते १०वर्गाची क्रमिक पुस्तके वापरलेले आहेत. त्यामध्ये प्रथम क्रमांकाची उल्लेखांची संख्या २८ एवढी आहे. तर दुसऱ्या क्रमांकाची उल्लेख संख्या २६ एवढी आहे.

८. नियतकालिकाची प्राधान्यक्रम :

नियतकालिकाच्या प्राधान्यक्रम काढला असता असे आढळून आले की, साम्ययोग साधना, शिक्षण संक्रमण, जीवन शिक्षण या नियतकालिकाचा वापर प्राधान्याने केल्याचे दिसून येते.

९. निष्कर्ष

१. संशोधकाने जास्तीत जास्त ग्रंथ या वाचन साहित्याचा वापर केलेला आहे (शेकडा प्रमाण ७७.६०) तर नियतकालिकाचा वापरामध्ये ५४.८६ टक्के वर अहवाल वापर ११.८६ टक्के इतका केलेला आहे.
२. संशोधकांनी भारतामध्ये प्रकाशित झालेल्या ग्रंथाचा वापर जास्तीत जास्त केला आहे तर विदेशात प्रकाशित झालेल्या ग्रंथाचा वापर नगण्य आहे (भारत ७८.८४ टक्के विदेशात ८.८१ टक्के) तर नियतकालिकाच्या वापरामध्ये भारतात प्रकाशित झालेल्या नियतकालिकाचा जास्तीत जास्त वापर केलेला आहे. (शेकडा प्रमाण ९.६ टक्के)
३. संशोधकांनी मराठी भाषेतील ग्रंथ व नियतकालिकाचा वापर जास्तीत जास्त केल्याचे दिसून येते. (ग्रंथ ६२.३२ टक्के नियतकालिके ९४.०५ टक्के)
४. संशोधकांनी संशोधन करीत असताना १९९५-१९९९ या कालावधीत प्रकाशित झालेल्या ग्रंथाचा वापर जास्त केला आहे (शेकडा प्रमाण १५.४७ टक्के) तर नियतकालिकाचा वापर २००१-२००५ च्या दरम्यान प्रकाशित झालेल्या नियतकालिकाचा केला आहे (शेकडा प्रमाण ४६.४३ टक्के)
५. संशोधकांनी त्यांच्या शोधप्रबंधात १९८० ते २००५ दरम्यान प्रकाशित झालेल्या नियतकालिकाचा वापर असून त्यांचे हाफ-लाईफ २५ वर्षे ऐवढे आहे.
६. संशोधकांनी त्यांच्या संशोधनामध्ये ह. ना. जगताप व बापट भा. गो. या लेखकाच्या ग्रंथाचा वापर जास्तीत जास्त केल्याचे दिसून येते तर नियतकालिकाचा वापर सर्वात जास्त साम्ययोग साधना त्यानंतर संक्रमण या नियतकालिकाचा वापर केल्याचे स्पष्ट होते.

संदर्भ सूची :

१. गणपुले श. रा. (१९९७) ग्रंथालय व्यवस्थापनाची मूल तत्वे नाशिक य. च. म. मू. ध्वजापीठ पृ. ७.
२. काचोळे दा. धो., (१९९३) सामाजिक संशोधन पध्दती औरंगाबाद, कैलास प्रकाशन पृ २१.
३. निकोसे सत्प्रकाश (२००२) ग्रंथालय आणि माहितीशास्त्र संशोधन पध्दती, नागपूर, प्रज्ञा प्रकाशन पृ २०१.
४. रिसवडकर म. रा. (२००२) संशोधन : व्याख्या आणि पध्दती, नाशिक, य. च. म. मु. विद्यापीठ पृ ९.
५. देवरंजन जी. (१९९७) बिबली ओमॅट्रीक स्टडीज, न्यु दिल्ली, इस इस प्रकाशन पृ. २८.
६. दळवी डी. बी. (२००४) डॉ. बाबासाहेब आंबेडकर विद्यापीठ सामाजिक शास्त्र या विषयातील शोधप्रबंधातील उल्लेखाचे विश्लेषण.
७. म्हस्के एस. एम. (२००७) डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठातील वृत्तपत्र विद्याविभागात पी.एच. डी. पदवीसाठी सादर करण्यात आलेल्या प्रबंधातील उल्लेखाचे विश्लेषण.

* * *

कुमारवयीन मुलांच्या वर्तन समस्या व कारणे

सौ. पाकिजा अत्तार : शोध छात्रा, जे.जे.टी. विद्यापीठ, राजस्थान

डॉ. माधव रा. गवई : शोध छात्रा, जे.जे.टी. विद्यापीठ, राजस्थान

कुमारवयीन मुलांच्या वर्तनसमस्या व कारणे :

आज दुरदर्शन, वर्तमानपत्रातील बातम्यांवर नजर टाकली असता ठळकपणे जाणवते की गुन्हास्वरुपाच्या कृत्यांमध्ये शालेय विद्यार्थ्यांचा सहभाग वाढत आहे. बांद्रामध्ये काम करणारी १४ वर्षांच्या मुलीने पाचव्या मजल्यावरून बाळाला खाली टाकले, तर घरातून पळून आलेली मुलगी कुंटणखान्यात सापडली. आपल्या दैनंदिन कामात सुध्दा काही मुले शिक्षकांना, पालकांना जुमानत नाही. ती उध्दटपणे उर्मटपणे वागतात. शालेय शिस्ती संबंधीचे नियम मोडतात. तर काही मुले चटकन संतापतात. आक्रमक होतात. दुसऱ्याला शरीरिक इजा सुध्दा करतात. यासारखे अनेक वर्तन समस्या निर्माण होतात.

वर्तन समस्या :

- १) शाळेतून पळून जाणे
- २) आज्ञा पालन न करणे
- ३) चोरी करणे
- ४) खोटे बोलणे
- ५) मित्रांबरोबर किंवा अनोळखी व्यक्तींबरोबर कुरतेने वागणे.
- ६) मादक द्रव्यांचा वापर करणे (व्हाईलर खाणे)
- ७) असभ्य हावभाव करणे.
- ८) शाळेतील मालमत्तेची नासधूस करणे.
- ९) परीक्षा दिल्यानंतर प्रश्नपत्रिका फाडून शाळेच्या पॅसेसमध्ये टाकणे.
- १०) अश्लील शेरशायरी वहीत किंवा पानावर लिहिणे.
- ११) इंटरनेटद्वारे अतिप्रमाणात गप्पा मारणे तासनतास एकाकी राहणे.
- १२) पालकांना न सांगता ट्रेन मधून भटकत राहणे.
- १३) शाळेत न येता मैदानात किंवा बागेत जाणे.
- १४) दिवास्वप्न पाहणे दूरदर्शनवरील कार्यक्रम (रिऑलिटी शो) स्टंट करणे.
- १५) गैरहजर राहणे.

वर्तन समस्या निर्माण होणारे घटक व कारणे

अ) कौटुंबिक कारणे :-

अतिलाड - घरात पालकांकडून अतिलाड त्यामुळे घरात सर्वांनी माझे ऐकावे असे वाटते.

मुले हेकेखोर व हट्टी बनतात.

कडक, शिस्त – खोटे बोलायला शिकतात.

बेफाम वर्तन करतात.

अतिसंरक्षण – स्वतःचे निर्णय घेऊ शकत नाही

प्रत्येक वेळी दुसऱ्यावर अवलंबून असते.

घरातील संघर्ष - स्वतःचे निर्णय घेऊ शकत नाही आई बाबांचे भांडण कुटुंबातील वातावरण.

कौटुंबिक परिसर — आपल्या विचार कल्पनांना मर्यादा येते.

ज्या परिसरात राहतो त्याप्रमाणे आपण भाषा वापरतो.

भावनिक सुरक्षिततेचा अभाव —

घराबाहेर प्रेमाची माणसे शोधतात

अज्ञानाचा फायदा घेऊन फसवले जाते.

सुसंवादाचा अभाव - कुटुंबात एकमेकांशी मोकळेपणाने सुसंवाद चर्चा होत नाही.

अज्ञान — नाते संबंध कसे टिकवावे

परस्पर स्नेह, प्रेम कसे व्यक्त करावे इत्यादी बाबात अज्ञान

क) शारीरिक कारणे —

श्रवणदोष — ऐकायला आले नाही तर बोलता येत नाही.

वाचा दोष — बोलण्यात अडखळत असेल तर इतरांपासून दूर राहणे.

दृष्टीदोष — वाचण्यात पाहण्यात अडथळा येतो.

अपंगत्व — खेळण्यातील आनंद

कमकुवत शरीरयष्टी — स्वःची प्रतिमा उंचावत नाही.

स्नायू दुर्बलता — खेळात सहभागी होता येत नाही.

शारीरिक व्यंग — मुले चिडवतात.

ड) शालेय कारणे —

शालेय परिसर — अस्वच्छ असेल अध्यापनाला पोषक वातावरण निर्माण होणार नाही.

शाळेतील अभ्यासक्रम — खूप कठीण असेल तर ताण येतो.

कडक शिस्त — गैरहजर विद्यार्थ्यांला कारण समजवून न घेता शिक्षा करणे.

शिक्षकांचे वर्तन — काही शिक्षक अध्यापन करताना अपशब्द उच्चरतात.

वर्ग मित्र मैत्रिणींचे वर्तन — चिडवतात प्रसंगी मारहाण करतात म्हणून शाळेत न येणे.

इ) मानसिक कारणे - शरीरांतर्गत ग्रंथीतून तयार होणा-या स्त्रावांच्या अभावामुळे किंवा अतिरेकामुळे उदभवणा-य मानसिक दुर्बलता मज्जा, विकृती, मेंदू विकृती, मनोविकृती, चिंताविकृती, व्यक्तीमत्त्व विकृती, मतिमंदत्व, भयगंड, न्यूनत्व, अहंगंड, उन्माद यासारख्या मानसिक विकृती निर्माण होतात.

ई) लैंगिक विकासामुळे निर्माण होणा-या जाणीवा

सतत जाणवणारा अशक्तपणा व थकवा

आपण कसे दिसतो याबद्दल वाटणा-या काळज्या

मुरुमे, पुटकळ्या व त्वचेवरील डाग

स्थूलता

लैंगिक विकासाबद्दलच्या काळज्या :

पालक व शिक्षकांकडून शास्त्रीय माहिती व योग्य मार्गदर्शन मुलांना मिळत नाही. त्यामुळे अधिक माहिती मिळविण्यासाठी तिथे जिथे या प्रकारची माहिती मिळेल त्याकडे आकर्षित होतात त्यामुळे अधिकच भरकटतो.

- शिक्षक व पालक यांची भूमिका – हे करु नका – टाळा
- १) अडचणी/समस्या समजावून न घेता मुलांवर रागवू नका.
 - २) इतर शिक्षक, पालक, हयानांच फक्त जबाबदार धरु नका.
 - ३) “तू नालायकच आहेस. कधीही सुधारणारच नाहीस” अशा शब्दांनी पाल्य/विद्यार्थी याचा अपमान करु नका.
 - ४) मुलांना कोणताही बिल्ला लावू नका. उदा. ढ, बेअक्कल, मेंटल,.
 - ५) विद्यार्थ्यांच्या समस्येबाबत चारचौघात काहीही बोलू नका. गोपनीयता हा त्याचा हक्क आहे हे विसरु नका.
 - ६) मुलांना आयोग्य काम सांगू नका. “माझ्यासाठी टपरीवरुन सिगारेट, तंबाखू आण.
 - ७) अति शारीरिक जवळीक करु नका. “गालाला हात लावून बोलणे पाटीवर थोपटणे, हात फिरवणे, अगदी जवळ जाऊन बोलणे, कुमारवस्थेतील मुलांना हे अजिबात आवडत नाही.
 - ८) इतर शिक्षक/पालक ह्यांच्याबद्दल विद्यार्थ्यांसमोर अनादराने, उपसाहात्मक शेरे मारु नका “पैसा मिळवत फिरतात, तुझ्या पालकांना तुझ्याकडे लक्ष द्यायला वेळच कुठे आहे”. “सरांच्या फाजिल कौतुकांनी तू बिघडलास”. “काय गाणी म्हणून चित्र काढून पोट भरता येत का ? गणित शास्त्र शिक.”
 - ९) एखादे मुल समस्याग्रस्त झाले तर दोष त्याचा स्वतःचा नसतो, त्याचे पालक वाईट नसतात. वाईट असते ती त्यावेळची परिस्थिती
 - १०) आपल्या हक्कांचा गैरवापर करु नका.
 - ११) एका समस्याग्रस्त मुलांमुळे संपूर्ण कुटुंब त्यातील नातीगोती अस्थिर, कमकुवत होतात. त्यांची चेष्टा करु नका. त्यांचा अपमान करु नका.
 - १२) स्वतः सेन्सेटिव्ह भावनाशील तरीही खंबीर व्यक्तीच दुसऱ्याला मदत करु शकते. अती भावनाशील होऊन गुंतू नका.
 - 13) Give them empathy, not sympathy
 - १४) आपल्या हक्कांचा गैरवापर करु नका.
 - १५) विसरु नका.

* * *

कर्ज पुरवठयातून सामाजिक बांधिलकी जपणारी बँक 'दि बाबासाहेब देशमुख सहकारी बँक लि.' आटपाडी

श्री. हनुमंत सावंत, श्री. संतोष लोखंडे : अर्थशास्त्र विभाग, श्रीमान बाबासाहेब देशमुख महाविद्यालय आटपाडी

प्रस्तावना

“चांगल्या विश्वनिर्मितीसाठी सहकार” या उदात्त हेतूने प्रेरीत होऊन संयुक्त राष्ट्र संघाने सन २०१२ हे वर्ष सहकार वर्ष म्हणून जाहिर केले आहे. सन १८४४ मध्ये इंग्लंडमध्ये २८ विणकऱ्यांनी एकत्रित येऊन जगातील पहिली सहकारी संस्था 'रॉशडेल इक्विटेबल पायोनियर्स को ऑपरेटीव्ह सोसायटी' या नावाने स्थापन झाली. अल्पावधितच ही चळवळ संपूर्ण जगभर पसरली. या चळवळीने पतपुरवठा, बँकिंग, विपनन प्रक्रिया, गृहनिर्माण, दुग्धव्यवसाय इ. अनेक क्षेत्रे पादाक्रांत केली. भारतात सन १९०४ मध्ये ब्रिटिशांनी कायद्याने ही सहकारी चळवळ सुरु केली. सहकारी चळवळ ही समाजातील दुर्बल घटकांना आत्मनिर्भर बनविणारी चळवळ आहे. स्वातंत्र्यानंतर महाराष्ट्रात सन १९५० मध्ये प्रवरानगर येथे विठ्ठलराव विखे पाटलांनी पहिला साखर कारखाना स्थापन केला आणि खऱ्या अर्थाने महाराष्ट्राच्या सहकारी चळवळीला चालना मिळाली.

सध्या मात्र एकूणच भारतातील सहकारी चळवळीचा प्रवास अधोगतीच्या मार्गाने वाटचाल करीत आहे. तसेच सहकारी चळवळीची विश्वासार्हता कमी होत आहे. आज महाराष्ट्रातील नामांकित सहकारी संस्था अखेरच्या घटका मोजत असताना आटपाडी सारख्या दुष्काळी भागात प्रतिकूल परिस्थितीशी झगडत बँकिंग क्षेत्रात उल्लेखनीय कार्य करून रिझर्व बँकेचा सर्वोत्कृष्ट बँकेचा पुरस्कार प्राप्त करणारा दि बाबासाहेब देशमुख सहकारी बँक लि. आटपाडी या बँकेच्या उल्लेखनीय यशाचा आढावा घेणे क्रमप्राप्त बनते.

पार्श्वभूमी

आटपाडी तालुका हा कायमस्वरूपी दुष्काळी पट्ट्यात येतो या तालुक्यावर निसर्गाची सतत अवकृपाच आढळते त्यामुळे या भागातील सर्वसामान्य माणूस कायमस्वरूपी संघर्षच करीत आला आहे या मायदेशी माणसामध्ये कष्ट करण्याची जिद्द मात्र अफाट आहे. मायदेशी माणसाचा हाच गुण ओळखून आटपाडी तालुक्यातील शैक्षणिक, राजकिय, सामाजिक, सहकार क्षेत्रातील अभ्यासू व जनसामान्यांच्या प्रश्नांची जाण असणारे मा. श्री. अमरसिंह देशमुख यांनी 'अर्थास सार्थ करणारी समर्थ बँक' हे ब्रिद घेऊन आटपाडी तालुक्याचे भाग्यविधाते श्रीमंत बाबासाहेब देशमुख यांच्या नावाने 'दि बाबासाहेब देशमुख सहकारी बँक लि. आटपाडी' या बँकेची स्थापना सन १९९७ रोजी केली. अल्पावधितच यशाचे अनेक उच्चांक नोंदवत या बँकेने सहा शाखांच्या माध्यमातून जिल्हयाच्या सीमा पार केल्या आहेत.

शोध निबंधाची उद्दिष्टे :

सामाजिक क्षेत्रातील बँकेचे योगदान अभ्यासणे.

बँकेच्या आर्थिक प्रगतीचा आढावा घेणे.

बँकेने केलेल्या कर्ज पुरवठयामुळे आटपाडी परिसरामध्ये झालेल्या आर्थिक प्रगतीचा आढावा घेणे.

बँकेने मिळविलेल्या यशाचे मुल्यमापन करणे.

संशोधनाची अभ्यासपध्दती :

सदर शोध निबंध हा आटपाडी सारख्या दुष्काळी भागात कार्य करणारी व अल्पावधितच रिझर्व्ह बँकेचा 'सर्वोत्कृष्ट बँक' हा गौरव प्राप्त

करणारी व सतत ऑडिट 'अ' ग्रेड मिळालेल्या 'दि बाबासाहेब देशमुख सहकारी बँक लि. आटपाडी' या बँकेच्या कर्ज पुरवठ्यातून जपलेल्या सामाजिक बांधिलकीचा आढावा घेण्यासाठी तयार करण्यात आला आहे. हा शोध निबंध दुय्यम सामग्रीवर आधारलेला आहे. दुय्यम सामग्रीच्या आधारे बँकेची निगडीत असणारी विविध कागदपत्रे. वार्षिक अहवाल विविध लेख इंटरनेट इ. चा आधार घेतला आहे. या शोध निबंधाकरीता सन २००७ ते सन २०११ या कालावधीचा विचार केला आहे.

कर्ज पुरवठ्यातून आर्थिक परिवर्तन

कर्ज देणे हे बँकांचे प्राथमिक कार्य असते किंबहुना त्यावरच बँक व्यवसाय अवलंबून असतो. त्यामुळे बँकांना कर्ज देताना कर्जदाराची पत, कर्जाचा हेतू तारण मत्ता इ. चा विचार करावा लागतो. रिझर्व्ह बँकेच्या नियमानुसार बँकांना अग्रक्रम क्षेत्रांना कर्जपुरवठा करावा लागतो. अग्रक्रम क्षेत्रांत शेती, शेतीपुरक उद्योग. छोटे व्यवसायिक व सामाजिकदृष्ट्या मागासलेले लोक सिमांत शेतकरी भूमिहीन शेतमजूर इ. दुर्बल घटकांचा समावेश होतो. व्यायसायिक दृष्ट्या विचार करता अशी कर्जे बँकांना कमी लाभ मिळवून देणारी असतात त्यामुळे बँका अशी कर्जे देताना हात आखडता घेताना दिसतात. परंतु काही बँका समाजहितासाठी व सामाजिक परिवर्तनास हातभार लावण्यासाठी व्यवसायिक दृष्टिकोण बाजूला ठेऊन काम करताना दिसतात यामध्ये 'दि बाबासाहेब देशमुख सहकारी बँक लि. आटपाडी' या बँकेचा समावेश होतो ते पुढील आकडेवारीच्या सहाय्याने स्पष्ट होते.

1. शेती पुरक कर्जपुरवठा

शेतीपुरक कर्जात विहीर पाडणे, पाईप लाईन करणे, ठिबक सिंचन करणे, बांध बंदिस्ती करणे, शेळी पालन कुक्कुट पालन इ. व्यवसायांचा समावेश होतो. बाबासाहेब देशमुख सहकारी बँकेने सन २००७ ते सन २०११ अखेर खालील प्रमाणे कर्ज पुरवठा केला आहे.

२०११ अखेर शेतीपुरक कर्जपुरवठा (तक्ता क्र. १)

क्षेत्र	वर्ष	कर्जपुरवठा	एकूण कर्जपुरवठा	एकूण कर्ज पुरवठ्याची टक्केवारी
शेतीपुरक कर्ज	२००७	२,०४,१२,३९८	१४,८९,६०,२०५	१३.७०%
	२००८	१,७२,१२,३१३	१६,०३,३३,९५५	१०.७३%
	२००९	१,५५,०४,४७१	१६,४४,३४,१५२	९.४२%
	२०१०	२,९४,६६,३५८	२१,३५,७३,६८१	१३.७९%
	२०११	६,७६,०६,५८५	३०,२६,६२,५९९	२२.३३%

बाबासाहेब देशमुख सहकारी बँकेने सन २००७ साली २,०४,१२,३९८ कोटी रुपये इतका कर्ज पुरवठा केला. एकूण कर्जाशी

हे प्रमाण १३.७०% इतके होते. तर सन २०१० साली एकूण कर्जाच्या १३.७९% व २०११ साली एकूण कर्जाच्या २२.३३% इतका कर्ज पुरवठा शेती पुरक क्षेत्रासाठी केला गेला. ही वाढ निश्चित उल्लेखनीय आहे. आटपाडी सारख्या दुष्काळी तालुक्यात बँका सहजासहजी शेती पुरक कर्जे देण्यास तयार होत नाहीत. परंतु बाबासाहेब देशमुख सहकारी बँकेने हे धाडस दाखवून सामाजिक विकासास हातभार लावला आहे.

2. पीक कर्ज

दुष्काळी भगातील शेतकऱ्यांनी परंपरागत शेती ऐवजी नगदी पिके घेऊन आपले आर्थिक जीवनमान उंचवावे यासाठी बँकेने शेतकऱ्यांना डाळिंब, द्राक्ष, ऊस व इतर पिकांसाठी पिक कर्जे ही दिली आहेत. कारण येथील कार्यक्षम शेतकरी भंडवला अभावी नगदी पिकांचे उत्पादन घेऊ शकत नाही यासाठी त्यांना बँकेने आर्थिक पाठबळ पुरविले आहे.

२०११ अखेर पिक कर्जपुरवठा (तक्ता क्र. २)

क्षेत्र	वर्ष	कर्जपुरवठा	एकूण कर्जपुरवठा	एकूण कर्ज पुरवठ्याची टक्केवारी
पिक कर्ज	२००७	११,५५,२०५	१४,८९,६०,२०५	०.७७%
	२००८	७,९३,२०६	१६,०३,३३,९५५	०.४९%
	२००९	११,३३,१३६	१६,४४,३४,१५२	०.६८%
	२०१०	७,४५,२३४	२१,३५,७३,६८१	०.३४%
	२०११	१२,३९,७३८	३०,२६,६२,५९९	०.४०%

बँकेचे कार्यक्षेत्र दुष्काळी भागात येते. अशा दुष्काळी भागातील शेतकरी नैसर्गिक प्रतिकूलतेमुळे कर्ज घेऊन किंवा स्वतःचे भांडवल गुंतवण्यावर तयार होत नाही. त्यामुळे बँकेचे पिक कर्ज इतर कर्जांच्या तुलनेने कमी आहे. सन २००७ मध्ये हे प्रमाण एकूण कर्जांच्या ०.७७% इतके होते ते सन २०११ मध्ये ०.४०% इतके झाले.

३. छोटे व्यापारी व व्यावसायिकांना कर्जपुरवठा

छोटे व्यापारी व व्यावसायिकांची त्यांच्या व्यवसाय वृद्धीसाठी बँकेने कर्ज पुरवठा केला आहे. त्यामुळे छोटे व्यापारी व व्यावसायिकांची खेळत्या भांडवलाची गरज पूर्ण झाली आहे.

सन २०११ अखेर छोटे व्यापारी व व्यावसायिकांना कर्जपुरवठा (तक्ता क्र. ३)

क्षेत्र	वर्ष	कर्जपुरवठा	एकूण कर्जपुरवठा	एकूण कर्ज पुरवठ्याची टक्केवारी
छोटे व्यापारी व व्यावसायिक	२००७	४,२०,८८,६९३	१४,८९,६०,२०५	२८.२५%
	२००८	४,२५,२४,३५६	१६,०३,३३,९५५	२६.५२%
	२००९	४,०२,४२,८२४	१६,४४,३४,१५२	२४.४७%
	२०१०	५,३०,४०,९९४	२१,३५,७३,६८१	२४.८३%
	२०११	५,३६,६१,०२९	३०,२६,६२,५९९	१७.७२%

छोटे व्यापारी व व्यावसायिकांच्या कर्जपुरवठ्याचा विचार करता या कर्ज पुरवठ्याच्या रक्कमेत वाढ झाली आहे परंतु एकूण कर्जांशी तुलना करता हे कर्ज कमी कमी होत आहे. सन २००७ रोजी या कर्जांचे प्रमाण २८.२५% होते ते सन २०११ रोजी ते १७.७२% इतके झाले आहे.

4. घर बांधणी कर्ज

घर ही मानवाची मुलभूत गरज आहे. प्रत्येक व्यक्तीचे स्वतःच्या मालकीचे घर असावे असे स्वप्न असते हे स्वप्न पूर्ण करण्यासाठी मोठ्या प्रमाणात पैशाची गरज असते ही गरज बँका गृह कर्जाच्या माध्यमातून पूर्ण करीत असतात.

सन २०११ अखेर घर बांधणी कर्जपुरवठा (तक्ता क्रं. ४)

क्षेत्र	वर्ष	कर्जपुरवठा	एकूण कर्जपुरवठा	एकूण कर्ज पुरवठ्याशी टक्केवारी
घर बांधणी	२००७	२,९२,२५,५६०	१४,८९,६०,२०५	१९.६१%
	२००८	३,६४,७५,३७३	१६,०३,३३,९५५	२२.७४%
	२००९	३,८३,१४,२२०	१६,४४,३४,१५२	२३.३०%
	२०१०	५,९४८,२४,५५०	२१,३५,७३,६८१	२८.०१%
	२०११	९,४१,२१,५११	३०,२६,६२,५९९	३१.०९%

बँकेने सर्वात जास्त कर्ज पुरवठा घरबांधणी व दुरुस्तीसाठी केलेला दिसतो. सन २००७ साली १९.६१% इतका कर्ज केला होता तो सन २०११ साली तो ३१.०९% इतका झाला. यावरून बँकेने सामान्य लोक पगारदार, शेतकरी, समाजातील दुर्बल घटक इ. साठी मोठ्या प्रमाणात कर्ज पुरवठा करून अनेकांचे घर बांधण्याचे स्वप्न सत्यात उतरवले आहे. या कर्जात उत्तरोत्तर वाढच होत असल्याचे दिसते.

5. वाहन तारण कर्ज

आज वाहतूक क्षेत्रात मोठ्या प्रमाणात वाढ होत आहे. अल्पशिक्षित लोकांना रोजगार उपलब्ध करून देणारा वाहतूक व्यवसाय आहे. या वाहतूक व्यवसायासाठी बँकेने वाहन तारण कर्जाचे वाटप खालील प्रमाणे केले आहे.

सन २०११ अखेर वाहन तारण कर्जपुरवठा (तक्ता क्र. ५)

क्षेत्र	वर्ष	कर्जपुरवठा	एकूण कर्जपुरवठा	एकूण कर्ज पुरवठ्याशी टक्केवारी
वाहन तारण कर्ज	२००७	३६,७६,३७५	१४,८९,६०,२०५	२.४६%
	२००८	४९,०१,०८७	१६,०३,३३,९५५	३.०५%
	२००९	९२,१४,०२९	१६,४४,३४,१५२	५.६०%
	२०१०	१,७५,१९,१०५	२१,३५,७३,६८१	८.२०%
	२०११	२,८७,७७,१३९	३०,२६,६२,५९९	९.५०%

वाहन कर्जात बँकेने प्रगती केल्याचे वरील आकडेवारीने स्पष्ट होते. सन २००७ मध्ये एकूण कर्जाशी वाहन कर्जाचे असणारे प्रमाण २.४६% होते ते सन २०११ मध्ये ९.५०% इतक्या प्रमाणात वाढलेले दिसते.

6. शैक्षणिक कर्ज

हुशार व गरजू विद्यार्थ्यांचे पैशासाठी शिक्षण थांबू नये यासाठी बँकेने शैक्षणिक कर्ज योजना सुरु केली आहे. आटपाडी तालुका नैसर्गिक दृष्ट्या दुष्काळी असला तरी येथे बुध्दीचा मात्र सुकाळ आहे याच बुध्दीमत्तेला वाव देण्यासाठी बँक गरजू विद्यार्थ्यांना

सवलतीच्या दररात शैक्षणिक कर्जाचे वाटप खालील प्रमाणे केले आहे.

सन २०११ अखेर शैक्षणिक कर्जपुरवठा
(तक्ता क्र. ६)

क्षेत्र	वर्ष	कर्जपुरवठा	एकूण कर्जपुरवठा	एकूण कर्ज पुरवठ्याशी टक्केवारी
शैक्षणिक कर्ज	२००७	८९,२०१	१४,८९,६०,२०५	०.०५%
	२००८	३,५०,११९	१६,०३,३३,९५५	०.२१%
	२००९	५,२९,५८६	१६,४४,३४,१५२	०.३२%
	२०१०	८,०४,७३७	२१,३५,७३,६८१	०.३७%
	२०११	१०,९२,६६५	३०,२६,६२,५९९	०.३६%

शैक्षणिक कर्जाचे सुरुवातीला असणारे प्रमाण कमी असले तरी नंतर मात्र त्यामध्ये वाढ होत गेल्याचे दिसते सुरुवातीला ही प्रमाणे केवळ ०.०५% इतके होते नंतर मात्र सन २०११ मध्ये ते ०.३६% इतके वाढल्याचे दिसते. या क्षेत्रात अजुनही वाढीला वाव आहे.

7. वर्षनिहाय कर्ज पुरवठा

शेती पुरक कर्ज, पिक कर्ज, व्यावसायिक कर्ज, वाहन कर्ज व शैक्षणिक कर्ज यांची एकत्रित वर्षनिहाय आकडेवारी पुढील प्रमाणे अभ्यासता येईल.

विविध क्षेत्रनिहाय कर्जपुरवठा (तक्ता क्र. ७)

क्षेत्र	वर्ष	कर्जपुरवठा
शेती पुरक कर्ज, पिक कर्ज व्यावसायिक कर्ज, वाहन कर्ज व शैक्षणिक कर्ज	२००७	६४.७९%
	२००८	६३.७४%
	२००९	६३.७९%
	२०१०	७५.१७%
	२०११	८१.०४%

निष्कर्ष :

- ❖ शेती क्षेत्रात मूलभूत सुधारणा करण्यासाठी मोठ्या प्रमाणात कर्जपुरवठा केला आहे.
- ❖ घर ही मानवाची मुलभूत गरज आहे. ही गरज पूर्ण करण्यासाठी बँकेने मोठ्या प्रमाणात कर्ज पुरवठा करून सामाजिक बांधिलकी जपली आहे.
- ❖ छोटे व्यापारी व व्यावसायिक हे राष्ट्रीयकृत बँकांकडून दुर्लक्षिलेले घटक आहेत त्यांना खेळत्या भांडवलासाठी मोठ्या प्रमाणात खाजगी सावकारांवर अवलंबून रहावे लागत असे ती गरज बँकेच्या माध्यमातून पूर्ण झाली आहे.
- ❖ आटपीडीसारख्या दुष्काळी भागातील शेतकरी नैसर्गिक प्रतिकूलतेमुळे कर्ज घेऊन भांडवल गुंतवण्यास उत्सुक असत नाही त्यामुळे पिक

- ❖ कर्जाचे प्रमाण अल्प आहे.
- ❖ असंगठित क्षेत्रातील वाहन उद्योग मोठ्या प्रमाणात विस्तारत आहे अल्पशिक्षित लोकांना स्वयंरोजगार देणारा हा व्यवसाय आहे. या कर्ज पुरवठ्यात वाढ दिसून येते.
- ❖ शैक्षणिक कर्जाला मागणी कमी असल्याने शैक्षणिक कर्जाचे प्रमाण अत्यल्प आहे.

पुरस्कार :

महाराष्ट्र अर्बन को-ऑपरेटिव्ह बँक असोसिएशन चा 'राज्यस्तरीय सर्वोत्कृष्ट बँक' प्रथम पुरस्कार सन २०१० - २०११.

महाराष्ट्र अर्बन को. ऑपरेटिव्ह बँक असोसिएशन चा 'राज्यस्तरीय सर्वोत्कृष्ट बँक' प्रथम पुरस्कार सन २००९-२०१०.

राष्ट्रीय सहकारिता विकास व ग्रामीण प्रबंध संस्था, वर्धा यांचा वार्षिक अहवाल मुल्यमापन 'राज्यस्तरीय अत्युत्कृष्ट संस्था'

- ❖ म्हणून सलग पाच वर्षे गौरविण्यांत आले आहे.
- ❖ सहकार भारतीचा 'उत्कृष्ट बँक' पुरस्कार
- ❖ राष्ट्रीय विकास रत्न सुवर्ण पदक

या पुरस्कारांबरोबरच अनेक संस्थांचे मिळून जवळपास १५ इतर पुरस्कार प्राप्त केले आहेत. तसेच बँकेच्या उल्लेखनीय कार्यामुळे रिझर्व्ह बँकेची सतत "अ" ग्रेड मिळणारी बँक म्हणून ओळखली जाते. तसेच गेली अनेक वर्षे ० इ.ई. असणारी ही एकमेव बँक आहे.

बँक हे करू शकते :

बँकेच्या अग्रक्रम क्षेत्राच्या कर्जपुरवठ्याचा अभ्यास करता पुढील उपयोजना सुचविता येतील

- ❖ आटपाडी तालुका हा मेंढी पालन व शेळीपालन व्यवसायासाठी महाराष्ट्रात प्रसिध्द आहे. शेती पुरक कर्जाचा विचार करता या व्यवसायासाठी व आधुनिक पध्दतीने शेतीपालन करण्यासाठी कर्जपुरवठा वाढविण्यास वाव आहे.
- ❖ वाहन उद्योग अल्पशिक्षित लोकांना रोजगार देणारा उद्योग म्हणून उदयास येत आहे. या क्षेत्रासाठीचा कर्ज पुरवठा वाढविता येईल.
- ❖ छोटे व्यापारी व व्यवसायिकांचा कर्जपुरवठा कमी होत आहे या कर्जाच्या वाढीसाठी लक्ष देणे गरजेचे आहे.
- ❖ शैक्षणिक कर्जाचेही प्रमाण अत्यल्प आहे लोकांना या कर्जाच्याबाबतीत माहिती देऊन या कर्जाचे प्रमाण वाढविणे गरजेचे आहे.
- ❖ दुध संघाशी सांगड घालून गाय म्हैस खरेदीसाठी कर्ज पुरवठा वाढवता येईल.

समारोप :

अशा रीतीने दि. बाबासाहेब देशमुख सहकारी बँक लि. आटपाडी' या बँकेने आर्थिक समाजिक विकासात महत्वाचे योगदान दिले आहे. बँकेचे संस्थापक अध्यक्ष मा. श्री. अमरसिंह देशमुख यांच्या उत्तम व्यवस्थापन कौशल्याच्या जोरावर अल्पावधितच बँक नावारुपास आणली आहे. बँकेचे संचालक मंडळ व सेवकांच्या अथक कष्टामुळे बँक वेगाने प्रगती करित असून या बँकेने कर्ज पुरवठ्यातून सामाजिक बांधिलकी जपणारी बँक म्हणून महाराष्ट्रात एक वेगळी ओळख निर्माण केली आहे.

संदर्भ :

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