

ISSN 0972-561X

Indian Educational Review

Volume 39

Number 1

January 2003

A Study of Awareness and Attitude of Students towards Adolescent Reproductive Health

Nationwise Comparison of Learning Approaches and Learning Difficulties of Undergraduate Medical Students

Primary School Teachers in Haryana : Explorations into their Working Conditions

A Study of Low and High Salaried Group Teachers Teaching Visually Impaired in Relation to their Adjustment and Job Satisfaction



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HALF-YEARLY JOURNAL OF EDUCATIONAL RESEARCH
INDIAN EDUCATIONAL REVIEW

Volume 39

Number 1

January 2003

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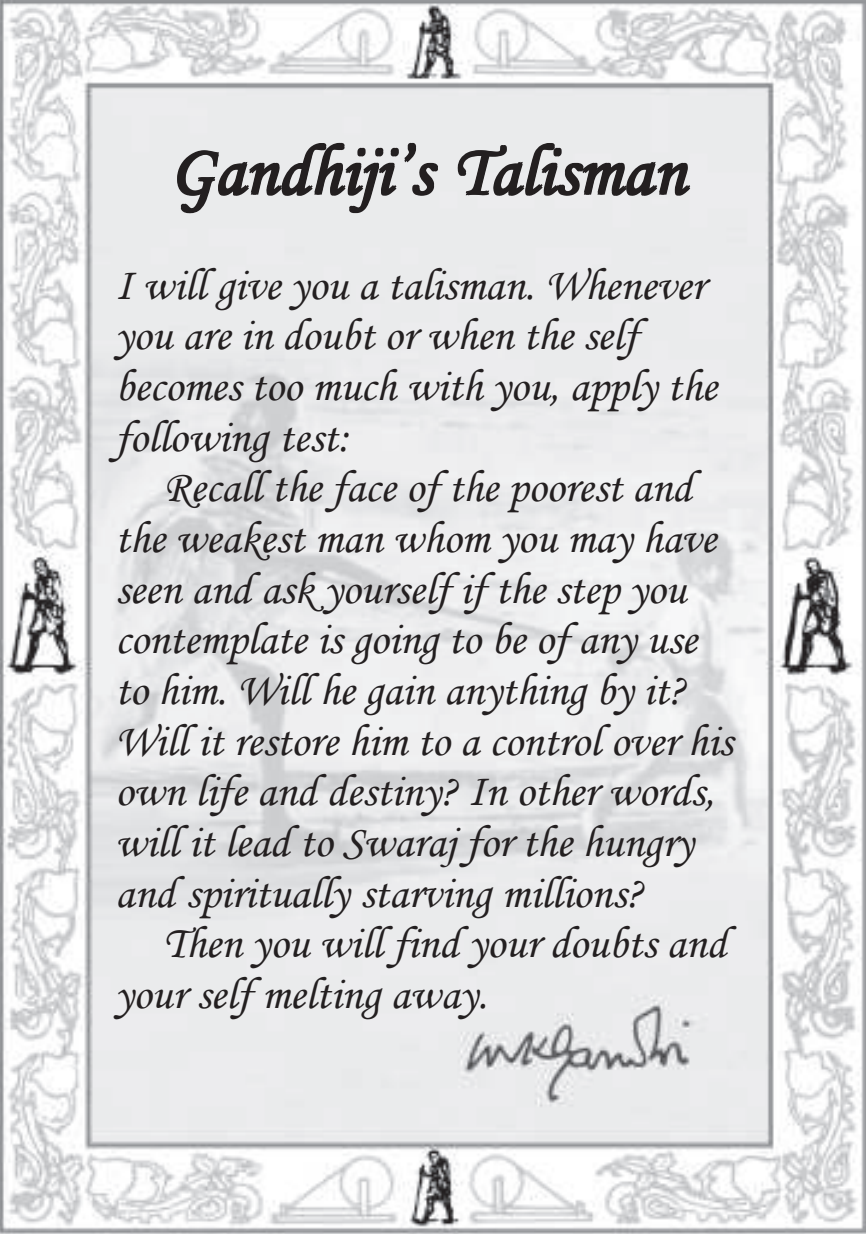
Indian Educational Review

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Subscription in India for single copy is Rs 29.00. Annual subscription is Rs 58.00. Other countries : Single copy \$8.70 or £2.90. Annual subscription : \$17.40 or £5.80 (postage by air mail extra).



Gandhiji's Talisman

I will give you a talisman. Whenever you are in doubt or when the self becomes too much with you, apply the following test:

Recall the face of the poorest and the weakest man whom you may have seen and ask yourself if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny? In other words, will it lead to Swaraj for the hungry and spiritually starving millions?

Then you will find your doubts and your self melting away.

M.K. Gandhi

CONSTITUTION OF INDIA

Part IV A

Fundamental Duties of Citizens

ARTICLE 51A

Fundamental Duties – It shall be the duty of every citizen of India —

- (a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;
- (b) to cherish and follow the noble ideals which inspired our national struggle for freedom;
- (c) to uphold and protect the sovereignty, unity and integrity of India;
- (d) to defend the country and render national service when called upon to do so;
- (e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;
- (f) to value and preserve the rich heritage of our composite culture;
- (g) to protect and improve the natural environment including forests, lakes, rivers, wildlife and to have compassion for living creatures;
- (h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
- (i) to safeguard public property and to abjure violence;
- (j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement.
- (k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.

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INDIAN EDUCATIONAL REVIEW

- | | |
|--|--|
| 1. Place of Publication | National Council of Educational Research and Training (NCERT),
Sri Aurobindo Marg, New Delhi 110 016 |
| 2. Periodicity of Publication | Half-yearly |
| 3. Printer's Name
(Whether citizen of India?)
(If foreigner, state the country of origin)
Address | Rajeev Gupta
Yes
(Not applicable)

Proprietor, Tarang Printers, B-50,
Krishan Kunj, Extn. II, Delhi 110 092 |
| 4. Publisher's Name
(Whether citizen of India?)
(If foreigner, state the country of origin)
Address | Puran Chand
Yes
(Not applicable)

Professor and Head, Publication
Department, NCERT, Sri Aurobindo
Marg, New Delhi 110 016 |
| 5. Editor's Name
(Whether citizen of India?)
(If foreigner, state the country of origin)
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| 6. Names and Addresses of the individuals who own the newspaper and partner or shareholders holding more than one percent of the total capital | National Council of Educational Research and Training, New Delhi
(An autonomous body of the Govt. of India in the Ministry of Human Resource Development) |

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Authors may provide brief descriptions about themselves along with areas of their specialisations.

A Study of Awareness and Attitude of Students towards Adolescent Reproductive Health

SAROJ YADAV*

ABSTRACT

The study provides broad trends regarding the level of awareness and attitude of students related to various adolescent reproductive health issues in different cultural settings. Despite the fact that as many as one fifth of the population of India comprises of adolescents aged 10-19 years, their reproductive health needs are poorly understood and ill-served. There is a lack of data about adolescent needs and problems. Very often misconceptions do prevail among adults including parents, teachers and even in adolescents themselves about adolescents' knowledge and behaviour and their needs and problems related to reproductive health. This study tried to identify the needs and problems of adolescents by providing broad trends regarding the level of awareness and attitude of students relating to various physical, physiological and psychological changes occurring to them during adolescence and social relationships. Various myths and misconceptions which hamper their growth and development during adolescence were also studied. A large majority of students from all the cultural settings desired that education in adolescence reproductive health issues should be imparted to them and both parents and school should help in this endeavour.

*Professor, DESSH, NCERT, New Delhi

DESPITE the fact that as many as one fifth of the population of India comprises of adolescents aged 10–19 years, their reproductive health needs are poorly understood and ill-served. The transition from childhood to adulthood has tended to be sudden. On the one hand, the biological onset of adolescence is advancing, on the other hand age at marriage is rising due to expansion of educational opportunities. As a consequence now young people have a longer interval between the onset of sexual maturity and marriage.

Adolescents are rarely considered as a distinct group with special needs. There is a lack of attention in almost every dimension of their reproductive health. Adolescents are found poorly informed regarding their own physical well-being, their health needs and their own bodies. Whatever knowledge they have is incomplete and many a time confusing. Low level of educational attainment, limited education and inhibited attitude towards sex related issues accentuate this ignorance.

Adolescence is generally defined in reference to a period of years. WHO has defined 'adolescence' which is being between the ages of 10–19 years, 'youth' is being between 15–24 years and 'young people' include both the groups and cover the age group 10-24 years (WHO, 1997). But 'Adolescence' may not be seen only in association with the precise number of years as its periodicity varies from person to person and culture to culture. No one definition of adolescence is universally acceptable. Moreover defining the age of adolescents varies from one socio-cultural setting to another. A young person attending the school may be considered an adolescent in one place, while another person of the same age in another place may be married and considered as an adult. Adolescence may appropriately be defined *"as the period of physical, psychological and social maturity from childhood to adulthood, the period extending from puberty to the attainment of full reproductive maturity"* (NCERT, 1999).

Demographic and Socio-Economic Profile of Adolescents in India

According to WHO, the population of young people, aged 10-24 is projected to reach 459 million by the year 2025. The proportion of world adolescent population is rising faster than that of other

age groups. Between 1960 and 1980, while the world population increased by 46 per cent, the population of adolescents increased by 66 percent. Today 84% of the adolescents live in the developing world. In South Asia (SAARC) region, there are over 260 million adolescents in a total population of over 1.5 billion. In India, there are an estimated 190 million adolescents, comprising 21.4 percent of the total population of the country. The socio-economic indicators of adolescent are also poor. Only two out of 3 boys and 2 out of 5 girls are literate in the age group of 10 – 19 years. In populous states of Uttar Pradesh, Madhya Pradesh, Bihar and Rajasthan only one out of 5 girls and 3 out of 5 boys are literate in the age group of 15 – 19 years. Though the level of literacy among adolescents in India is rising steadily, still there is a gap of 20 per cent between the literacy of boys and girls in the age group of 10 – 19 years.

Adolescent fertility is another important concern which is influenced by the age at marriage. Though the legal age at marriage has been fixed at 18 years for girls still large number of girls due to religious and social sanctions are married at an early age. In 1996, 38 percent of girls in urban areas and 46 percent in rural areas in the age group of 15 – 19 years were married. The age at marriage also varies from state to state. Early marriages are common in Madhya Pradesh, Andhra Pradesh, Rajasthan and Bihar where more than 50 percent girls aged 15 – 19 years are married (UNFPA, 2000). However, over the period of time, proportion of females married in their teens is gradually decreasing, leading to an extended adolescence. The fall in average age of menarche, longer periods of schooling and migration have all contributed to an increased period of adolescence. Despite the Child Labour Act of 1986, children continue to be involved in hazardous and non-remunerative occupations. The level of nutrition is low for adolescents (Government of India, 1998).

Adolescents are also important both as a target group, with a high risk of contracting the disease and also a potential source for the prevention of HIV/AIDS. The NFHS-I and II indicate that amongst girls in the age group of 13 – 19 years, the knowledge of STDs and HIV/AIDS is low (IIPS, 1995, IIPS, 2000). Epidemiological data on patients with AIDS suggests that in many cases, HIV infection acquired has been estimated about 2.5 million persons infected with HIV in India (WHO, 1997).

The Need

Young people, therefore, need realistic and accurate information related to reproductive and sexual health to prepare them for healthy adult relationships and equipping them to protect themselves from risky situations. Most adolescents today learn about sex from their peers and the media and many a time, the information is inaccurate and incomplete. Parents frequently avoid, are unwilling or unable to engage in discussion on sex related issues.

There is also a lack of available data about adolescents' needs and problems. Very often misconceptions do prevail among adults including parents, teachers, religious leaders and adolescents themselves about actual adolescent's knowledge, behaviour, views, needs and problems relating to reproductive health issues. Lack of such data and misconceptions often lead to ignorance, neglect of real situation, inadequate approaches and stereotyping. National Population Policy (NPP, 2000) treats adolescents as under-served group of population and suggests action plan for access of information, counselling and services for them (Government of India, 2000). Adolescent's needs should also not to be addressed as homogenous group (UNFPA, 1998) in view of the major differences in behaviour and needs of various sub-groups within the adolescent population such as young adolescents (10 – 14), older adolescents (16 – 19) between boys and girls, rural and urban adolescents, married and unmarried and those belonging to various ethnic groups.

The help that young adolescents need to avoid these risks therefore, varies. Some young people need support and skills to cope up with the process of growing up, say no to risky situations. Some suffer from sexual abuse. They need protection and care. Some start sex before marriage. They need help to abstain from sex. Many others are married and need health and family planning services as other married couples. (John Hopkins University, 1996). Young people, as a group with its own identity and needs, therefore, deserved utmost attention. Being between child and adult they are generally not represented and reflected in the usual national statistics, policies and programmes. Sex being a taboo, researches undertaken in this field remain highly sensitive and under reporting. The variations in the socio-cultural context within

the country also have major implications for the health, quality of life and development of men and women relationships. Therefore, culture specific information is essential to plan and develop activities and programmes. Unfortunately at present, lack of such information poses an immense challenge to the country in the planning process. Since issues related to sexual and reproductive health in general and the adolescents in particular are context dependent, continuous research support is needed to gain insight in young people's awareness, attitude, values and behaviour. Through this study an attempt was made to study the awareness and attitude of adolescents towards ARH issues in different cultural settings of students of Madhya Pradesh belonging to urban, rural and tribal areas.

Objectives

The study was designed to help identify the problems and needs of adolescents by studying their awareness and attitude in different cultural settings. These needs and problems can be valuable information for policy makers, programme implementers and curriculum framers for effectively introducing adolescence education in the education system. The major objectives of this study were the following :

- (i) To study the awareness level of adolescent students about ARH issues in different cultural settings, i.e. rural, urban and tribal.
- (ii) To study the attitude of adolescent students regarding various issues of adolescent reproductive health in different cultural settings.
- (iii) To study their needs and requirements.

Conceptual Framework

Although there has been a mounting pressure on school education system for the introduction of sex related matters in the curriculum, there has been a lot of variations in the conceptualisation of this education area. Different concepts like sex education, sexuality education, family life education, reproductive health education and puberty education have been used to describe the nature of this educational area. When the National Council of Educational Research and Training (NCERT) decided to organise a National Seminar in 1993 to discuss various

implications of the introduction of sex education in school curriculum, it used the same '*adolescence education*' (NCERT, 1994). The term 'adolescence education' was used for the first time by UNESCO Principal Regional Office for Asia and the Pacific (PROAP) Bangkok as the title of a package on sex education (UNESCO, 1991). However, NCERT used this term not only as a euphemism for sex education, but also to broaden its scope to incorporate the critical concerns of adolescent reproductive health. The seminar endorsed this approach and unanimously recommended the introduction of suitable components of adolescence education in the curricula at all stages of schooling. The Programme of Action (POA) adopted by the International Conference on Population and Development, 1994 (UNFPA, 1996) also provided support by including problems and needs of adolescents as an integral part of the population agenda. It has taken a note of the continuing neglect of the health needs and particularly the reproductive health needs of adolescents as a group. It defines reproductive health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity in all matters relating to the reproductive system and to its functions and processes."

In view of the above definition, the POA/ICPD, 1994 identified certain specific needs of adolescents and recommended that they should be adequately informed about reproductive health so that they attain a level of maturity required to make responsible decisions. Since the major areas of concerns of reproductive health are culture and region specific, ideally adolescence education should aim at different sets of objectives for different settings. But the school curriculum in India may not afford to absorb an educational intervention with multi-contextual objectives. The definition of adolescence education, therefore, reflects a broader and higher level objectives, in which varied specific objectives may be subsumed (NCERT, 1999). In view of this, the broad content area of adolescence education has been prepared under the three major components as follows :

- (i) *Process of Growing Up* : This component contains critical issues relating to the process of growth of child into adulthood such as physical and social aspects of growth including male body clock, female body clock, social and

moral aspects, self concept, self-esteem and other reproductive health related issues such as sexually transmitted diseases and myths and misconception.

- (ii) *AIDS* : The component of AIDS include contents relating to causes and consequences of HIV/AIDS, preventive measures, and individual and social responsibilities towards persons having HIV/AIDS.
- (iii) *Drug Abuse* : This component covers situations in which adolescents fall prey to drugs, consequences of drug abuse, preventive measures, treatment, rehabilitation of drug addicts, individual and social responsibilities and myths and misconception.

Research Review

Some studies have been conducted on needs assessment of adolescents in term of awareness and attitude, however studies focusing on different cultural settings are still less in number. These studies have revealed that the level of awareness about adolescent reproductive health issues is low among students (Nair 1994, Nagi 1998, Kapoor 1998, Sodhi 2000, SCERT Bihar 2000, SCERT Mizoram 2000, Rao 2000 and Grewal 2000). Their attitude towards ARH issues has also not been favourable. This has resulted among adolescents holding undesirable perceptions and behaviour in relation to sex related issues, (FPF and ORG 1992, Goparaju 1993, Savara and Sridhar 1994). Some studies reported urban and male students were more aware (Grewal 2000) whereas a few others revealed female students more aware and having positive attitude (Rao 2000, Department of Education, Dadra & Nagar Haveli 1998) towards ARH issues. Mother's education, caste and religion were also found influencing the awareness and attitude of students. Both teachers and parents agreed for the introduction of adolescence education in schools (SCERT Madhya Pradesh 1994, Nair 1994, Reddy 1995, Nagi 1998, Lyndem 1998, Rao 2000, Grewal 2000, SCERT Mizoram 2000, Sodhi 2000 and SCERT Bihar 2000). However the research efforts have been made in this area are insufficient as most of the studies have small sample size. Research support is also required to know the needs of adolescents in different cultural settings. Heterogeneity of adolescents in terms of age group, sex, socio-cultural setting, etc.

also demand in conducting needs assessment studies at the micro level so that need-based specific interventions can be made at the grass root level.

Design and Methodology

Sample : Students studying in Class XI formed the sampling unit of this study. Since the data was collected in July immediately after the reopening of the school, the various educational streams were not given importance. Where there were more than one section, section of art stream was selected. The state of Madhya Pradesh was selected for this survey. Since Madhya Pradesh is the largest State in area and also one of the most populous states of India, conducting base-line survey will help us in broadly

TABLE 1
Distribution of Students as per the Background Variables
[Sample Characteristics (N = 1054)]

<i>S. No.</i>	<i>Background Variables</i>	<i>Number of Students</i>	<i>Percentage of Students</i>
1.	<i>Sex</i>		
	i. Male	540	51.6
	ii. Female	514	48.4
2.	<i>Area</i>		
	i. Urban	431	40.9
	ii. Rural	265	25.1
	iii. Tribal	358	34.0
3.	<i>Marital Status</i>		
	i. Married	35	3.3
	ii. Unmarried	1019	96.7
4.	<i>Religion</i>		
	i. Hindu	963	91.5
	ii. Muslim	75	7.1
	iii. Christian	8	0.8
	iv. Others	7	0.7
5.	<i>Caste</i>		
	i. Scheduled Caste	113	10.7
	ii. Scheduled Tribe	120	11.5
	iii. Backward Class	421	39.8
	iv. General Category	400	38.0
6.	<i>Type of Family</i>		
	i. Nuclear	574	54.5
	ii. Joint	480	45.5

knowing the needs related to adolescent reproductive health issues. Identification of adolescent needs and problems in different cultural settings, selection of Madhya Pradesh seems justified as it represents large tribal population also. Further six districts were selected representing urban, rural and tribal student population. These were Hoshangabad, Gwalior, Bhopal, Dhar, Harda and Indore. For each district, the list of higher secondary schools was procured through DIETs. Total 90 schools selected for AE activities comprising 30 each from rural, urban and tribal setting were selected. After data scrutiny the data of 88 schools was found fit for analysis. A total number of 1054 students were selected for this study. From each school 12 students were selected by adopting systematic random sampling technique.

Table 1 presents the distribution of sample as per their socio-economic background. The sample consists of nearly 51.6 per cent boys and 48.4 per cent girl students. The presentation of urban students constituted the maximum i.e. about 41 per cent whereas rural and tribal students were 25 and 34 per cent respectively. Very few students were married. Majority were Hindus. The number of students from backward classes were 39.8 per cent and other general category were 38 per cent. Students belonging to nuclear families were little more than 50 percent. Table 2 reveals the distribution of students as per the education and occupation of parents. Number of students with illiterate mother (37.7%) were more compared to illiterate father (20.9%).

Measurement Tools : The tool used for measuring awareness and attitude consisted of three parts :

Background Information : Questionnaire consists of 16 items aiming at collecting information about their district, cultural setting, marital status, religion, castes, types of family, income level, parental education and occupation, sources of entertainment and exposure to media. Information was also procured about their opinion regarding their future plans relating to education and work.

Awareness Test : Consists of three parts having items of Yes/No/Do not know and of multiple choice. The Part I has 29 items related to various aspects of process of growing up such as physical,

TABLE 2
**Distribution of Students as per the Educational Level of their
 Father and Mother**

<i>Education Level</i>	<i>Number and Percentage of Students as per</i>			
	<i>Father's Education</i>		<i>Mother's Education</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
Illiterate	220	20.9	397	37.7
Primary	63	6.0	132	12.5
Middle	120	11.4	138	13.1
High School	154	14.6	141	13.4
Higher Secondary	217	20.6	148	14.0
Graduate	170	16.1	60	5.7
Post Graduate	104	9.9	38	3.6
Others (MBBS)	6	0.6	Nil	Nil
Engineer				
<i>Occupation</i>	<i>Father's Education Number</i>		<i>Mother's Education Number</i>	
Business	162	15.4	24	2.3
Service (Teacher, Army Service)	343	32.5	70	6.6
Doctor/Lecturer/ Journalist/Lawyer/ Engineer	56	5.3	4	0.4
Driver/Autodriver/ Agriculturist/Labour	490	46.8	213	20.2
Housewife		Nil	743	70.5

social and emotional development, menstruation, adolescent pregnancy and its implications, reproductive health issues and myths and misconceptions. The Part II has 27 items which deals with basic information about STDs/HIV/AIDS, its modes of transmission, prevention and myths and misconception and Part-III with 6 items deals with drug abuse, its meaning, effects and myths and misconceptions.

Attitude Scale : Contains 60 statements on three point scales, i.e. Agree, Disagree and Not Sure. Both positive and negative statements were used. The statements were based on concepts like physical and sexual development, boy-girl relationships, inter-personal relationships, peer and parental influence, gender

roles, HIV/AIDS, drug abuse and pedagogical issues related to the introduction of adolescence education in schools. Statements on myths and misconceptions related to adolescent reproductive health were also included in the Scale.

Data Collection and Statistical Analysis

The addresses of selected schools, which were also the schools for conducting adolescence education activities were procured by SCERT, Madhya Pradesh from the concerned District Education Officer through DIETs. One selected teacher from each school was invited for orientation in tools administration. Student's responses in percentage about awareness and attitudes relating to various adolescent reproductive health issues were calculated. Descriptive statistics was used to test the awareness and attitudes of students towards adolescent reproductive health. Analysis of variance was used to find out the equivalence of the groups and also the impact of the socio-economic variables on the awareness and attitudes of students.

Results

Results of the survey are broadly discussed in relation to awareness, attitude of students and the influence of socio-economic variables in relation to ARH issues.

I. AWARENESS LEVEL OF STUDENTS RELATING TO ADOLESCENT REPRODUCTIVE HEALTH

(a) Process of Growing Up

Awareness level of students with respect to various physical changes was found low. Only 49 per cent students regarded adolescence as an important stage of life because of physical, psychological and social changes that occur during this period. More urban students were found aware about the physical changes. The awareness level about the importance of adolescence stage, physical changes and its period was less among tribal students. However, the awareness about the 'duration of adolescence in period' was in more number of rural students than urban and tribal. Nearly 50 per cent of the students were aware that girls mature earlier than boys. More urban

students than rural and tribal and more boys than girls were aware about it.

TABLE 3
Responses of Students about Identification of Physical changes Occurring in Male, Female or in Both during Adolescence Period

S. No.	Changes	Percentage of Students Giving Correct Responses					
		Total	Urban	Rural	Tribal	Boys	Girls
1.	Increase in height and weight	73.6	78.9	75.8	65.6	66.3	81.3
2.	Change of voice	27.9	32.9	21.5	26.5	25.9	30.0
3.	Growth of hair at private parts	65.7	70.1	71.3	56.4	70.0	61.3
4.	Ejaculation in night	43.1	45.2	44.2	39.7	44.4	41.6
5.	Menstruation	66.8	72.6	66.0	60.3	61.1	72.8
6.	Increase in the size of genitals	30.4	29.0	32.5	30.4	27.0	33.9
7.	Widening of chest and shoulders	35.3	37.8	35.8	31.8	34.4	36.2
8.	Development of breast	40.9	45.0	38.1	38.0	40.9	40.9
9.	Increase in perspiration	50.8	55.0	52.1	44.7	46.9	54.9

In all, between 60 to 70 per cent students could identify the physical changes like increase in height and weight, growth of hair on private parts and menstruation occurring to male and female.

Physical changes like change of voice, ejaculation in night, increase in the size of genitals, widening of chest and shoulder and development of breasts were identified by less number of students as revealed by Table 3. More urban students as compared to rural and tribal and more girls as compared to boys were able to identify correctly the physical changes occurring during adolescence. Still large number of students were not aware about the changes occurring to their bodies.

Conception and Pregnancy

As revealed in Table 4, nearly three-fourth students were found aware about conception, care needed during pregnancy, the right age to have the first baby and health hazards of teenage pregnancy

whereas one fourth of students were not aware of it. This awareness level was found again more in urban students. About health hazards of adolescent pregnancy more rural students were found aware of it than urban and tribal and more girls than boys were aware about various issues relating to pregnancy and consequences of teenage pregnancy.

TABLE 4
Responses of Students regarding Reproductive Health Issues

S. No.	Statements	Percentage of Students Giving Correct Responses					
		Area-wise			Sex-wise		
		Total	Urban	Rural	Tribal	Boys	Girls
1.	A girl gets pregnant when union of sperm and ovum takes place	71.0	74.0	65.7	71.2	70.7	71.2
2.	A woman suspects pregnancy if she misses her periods	55.5	59.9	54.0	51.4	44.1	67.5
3.	During pregnancy the prospective mother should undergo medical check up from the beginning	78.0	80.0	79.6	73.7	70.4	85.6
4.	During pregnancy alcohol and drugs like aspirin should not be taken	74.0	75.4	73.7	72.6	72.2	78.0
5.	The best age to have first baby for mother is between 20-30 years	86.4	87.2	87.5	84.6	86.3	86.6
6.	Teenage pregnancy causes health hazards to mother and child	74.5	76.6	78.5	68.4	71.7	77.4

Awareness about Psychological and Social Development during Adolescence

Adolescents in nearly all societies are considered to have outgrown childhood, but they do not have defined roles. And hence, while they experience sudden widening of their world, the social environment does not keep pace with such changes in them.

They start encountering new ideas, new concepts and new values. They also experience sudden change in their social relationships – the relationships with their parents, peer groups and more importantly with the opposite sex. The present study tried to assess the awareness of adolescent students about these issues. Only 25 per cent adolescents could say 'Yes' to the fact that adolescent tried to be independent to their parents. More urban than rural and tribal students and more boys than girls said Yes to it.

Nearly 60 per cent students said that adolescents were assertive and liked to take their own decisions. Nearly 69 per cent students felt that boys and girls were interested in each other during adolescence. More rural students than urban and tribal said 'Yes' to this attraction. The difference in responses between boys and girls regarding attraction towards the opposite sex was not visible. Nearly 63 per cent students felt that student's energy should be channelized in social and recreational activities. More urban than rural and tribal students favoured this idea. Girls in large number than boys responded positively to this statement. Only 23 per cent students could identify the right situation to prevent sexual abuse and violence. Fifty seven percent considered assertiveness of girls necessary to prevent sexual abuse. Further analysis revealed that more tribal students than urban and rural could identify the right situation to prevent sexual abuse. More girls than boys gave importance to the assertiveness of girls for prevention of violence.

(b) Awareness about HIV/AIDS : Its Modes of Transmission and Prevention

Though 70 per cent students have heard of AIDS, the awareness about HIV and STDs was found low among students. As presented by Table 5, more urban than rural and tribal and more boys than girls were found having heard about AIDS. The level of awareness was again low regarding the differences between HIV, AIDS and STDs. A larger number of students (86.8%) were aware about the risk of getting infected through unprotected sex and nearly 67 per cent were aware about all the three modes of HIV transmission. However, the awareness level about the close link between STDs and HIV/AIDS was found only in less than 20 per cent students.

Surprisingly, the awareness level about mode of transmission was among more rural students (75.5%) than even urban (68.2%) and also tribal (59.5%). Boys as compared to girls were found more aware about it.

TABLE 5
Responses of Students about Modes of Transmission of HIV/AIDS

S. No.	Statement	Percentage of Students with Correct Responses					
		Total	Urban	Rural	Tribal	Boys	Girls
1.	The three ways HIV transmission are through semen/vaginal fluids, blood and mother to child	67.1	68.2	75.5	59.5	68.3	65.8
2.	One can get HIV from sharing unsterilised needles for injecting drugs, tattooing and ear or nose piercing	80.4	80.3	86.4	76.0	85.4	75.1
3.	AIDS is caused by virus	74.9	83.1	73.6	66.2	75.4	74.5
4.	A person with HIV infection at the initial stage may not show any symptom of infection	49.0	55.2	49.1	41.3	49.8	48.1
5.	STDs and AIDS are very closely linked	19.8	21.3	15.5	21.2	20.6	19.1

As depicted by Table 6, the responses of students about various issues related to ways and means for prevention and control of HIV/AIDS varied from 50 per cent to 79 per cent. Nearly 76 per cent students were felt abstinence as the only 100 per cent effective method of prevention of HIV/AIDS and taking HIV tested safe blood as a way to prevent HIV/AIDS.

Sixty eight percent students considered use of condom reduce the chance of HIV infection. Only 50 per cent students were aware that there was no known vaccine to prevent HIV/AIDS. More urban students as compared to rural and tribal students were aware of it. Boys in large number than girls were aware about the ways of prevention of HIV/AIDS.

TABLE 6
Responses of Students regarding Ways and Means of Prevention HIV/AIDS

S. No.	Statement	Percentage of Students with Correct Responses					
		Total	Urban	Rural	Tribal	Boys	Girls
1.	There is no known vaccine to prevent AIDS	50.5	51.0	47.2	52.2	52.2	48.6
2.	Persons who have sex only with their own spouses have rare chances to become infected with HIV	67.5	64.3	72.1	67.9	69.3	65.6
3.	Abstinence is the only 100% effective method of preventing HIV/AIDS	76.2	74.0	84.5	72.6	75.6	76.8
4.	One way by which people can protect themselves from HIV/AIDS is by not taking blood which has not been tested from HIV antibodies	79.3	85.82	80.0	70.9	76.9	81.9
5.	A person can reduce the chance of becoming infected with HIV/AIDS by using condom	68.2	73.8	70.9	59.5	71.7	64.6

There was a great deal of misconceptions on how HIV can be contracted. Nearly 25 per cent students consider that STDs could be occurred by having sex with a virgin. Thirty seven to 32 per cent students were having myths and misconception regarding HIV/AIDS transmission and cure, i.e. HIV could be transmitted through toilet seats, through mosquitoes bite or by living in the same room. About 42 per cent students considered that HIV/AIDS could not be transmitted by wearing clothes of HIV/AIDS infected person.

(c) Drug Abuse : Basic Information

Though around 50 per cent students reported that they were aware of the meaning of drug abuse, only 41 per cent could identify

TABLE 7
**Responses of Students about Myths and Misconceptions
 regarding HIV/AIDS**

S. No.	Statement	Percentage of Students with Correct Responses					
		Total	Urban	Rural	Tribal	Boys	Girls
1.	STDs can be cured if the infected person has sex with a virgin	74.2	73.5	77.4	72.6	75.0	73.3
2.	A person can get HIV infection from living with a person who has HIV/AIDS	63.5	67.3	70.2	54.2	65.4	61.7
3.	One can get HIV infection from toilet seats	68.0	71.9	72.8	59.5	71.5	64.2
4.	It is medically sound not to allow people who have HIV to work in places where food is handled	43.0	49.2	39.2	38.3	43.5	43.4
5.	Mosquitoes can transmit HIV from one person to another	66.7	71.0	69.8	59.5	69.3	64.2
6.	One can get HIV from wearing clothes that have been worn by another person with HIV/AIDS	42.1	47.1	50.9	29.9	45.4	38.9
7.	It is medically advised that students who have HIV should not be allowed in schools	66.8	75.9	77.4	57.5	71.7	68.3

the symptoms of drug addiction. Culture specific analysis showed that more rural students than urban and tribal were found aware of drug abuse. Not much difference was seen among the number of boys and girls about its meaning, however, more girls (46.9%) than boys (35.9%) could identify the symptoms of drug addicts. So far awareness regarding prevention of drug addiction was concerned, nearly 60 per cent students considered medical and psychological treatment and 73.1 per cent considered sustained self-determination necessary for it. These responses were given more by urban students than rural and tribal students. More

girls considered the role of medical and psychological treatments whereas more boys considered sustained self-determination needed to prevent drug abuse among adolescents.

II. ATTITUDE OF STUDENTS TOWARDS ADOLESCENT REPRODUCTIVE HEALTH ISSUES

With the decline in average age at menarche and the increased age at marriage, the length of adolescence period is becoming longer. Though relatively limited information is available on sexuality patterns of unmarried adolescents, some recent surveys provide useful insights indicating that attitude and behaviour of adolescents towards sex are rapidly changing with short and long-term implications for reproductive health. Attitude of students regarding sexual matter, boy-girl relationships, parents-adolescent relationships, HIV/AIDS, Drug Abuse and other pedagogical issues related to Adolescence Education and attitude towards boy-girl relationships of the study has been discussed below.

Attitude towards Boy-Girl Relationship

Nearly 38 per cent students considered virginity as the determinant character of a girl. More rural students and also more boys considered it important. About 74 per cent students agreed that sex urge if allowed unchecked results in anxiety. Majority of students had a positive attitude towards various issues of boy-girl inter-personal relationships, yet a significant section was having an attitude that was not in consonance to our socio-cultural values. For example, about 50 per cent students did not consider eve-teasing as bad. Nearly 26 per cent did not consider pre-marital sex as wrong or sin and 22 per cent agreed that a male could go for pre-marital sex but a female should not. More rural students than urban and tribal and more boys than girls were having these views. An important finding related to this issue was that 34 per cent boys and 18 per cent girls did not consider pre-marital relationship as a sin or wrong.

Peer-Parental Influence on Students

Variation in the attitudes of adolescents was seen regarding parental influence and their role during adolescence. A large

number of students (89%) agreed that interference by parents was for their welfare, 66 per cent agreed that parents should guide the adolescents in sex related matters. At the same time 45 per cent agreed that adolescents should discuss their personal matters with their friends. Still large number of students (66%) considered parents better than friends in guiding sex related matters. More urban students agreed to the positive role of parents, however, in deciding with whom adolescents should mix up, rural students in large numbers than urban and tribal agreed to the role of parents. More girls agreed to the role of parents than peers in sex related matters. At the same time, 25 per cent of adolescents were found having indecisive attitude regarding the role of parents in these matters.

Attitude towards Gender Roles

A substantially large number of students (i.e. nearly 84%) were found having positive attitude towards equality of sexes. However, this attitude declines as deeper analysis was done. When asked about 'who should take decision in the family', 'sharing of work by husband in home', the percentage of students who agreed for equality came down to 77 per cent and 72 per cent, respectively. More urban students in comparison to rural and tribal and more girls in comparison to boys were having favourable attitude towards proper gender role orientation.

Attitude towards HIV/AIDS

Quite a large number of students were found having myths and misconceptions about HIV/AIDS related issues. So far their attitude towards taking safe blood was concerned, substantially large number of students (93%) agreed that blood taken for transfusion should be tested even if it was of a close relative. Seventy three percent students considered sex workers and drug users responsible for AIDS. About 27 per cent students were of the opinion that people suffering from AIDS should live away and 30 per cent did not consider hugging safe or living with a person having HIV/AIDS. More urban students found having positive attitude towards AIDS patients than that of rural and tribal students. More students from rural and tribal areas were suffering from myths and misconceptions about HIV/AIDS than from urban

areas. Though awareness among boys was high as revealed earlier, yet more boys than girls were having myths and misconception related to HIV/AIDS.

Attitude towards Drug Abuse

Though 90 per cent students agreed that drug was injurious to health and 73 per cent agreed that alcohol should not be sold to a person under the age of 18, yet 43 per cent students were suffering from the most common myth "taking drug once may not lead to drug dependence". More tribal students (49%) were suffering from this myth than rural (47%) and urban (34%) students. More boys than girls were having this myth. Only 25 per cent agreed that they were not assertive and could not say 'no' to drug/smoking in the company of friends. More tribal and rural students felt that they could not say 'no' to smoking/drugs. More boys than girls agreed to be influenced by peers regarding drugs/smoking.

Introduction of Adolescence Education in Schools

A large number of students (83%) agreed that every adolescent had the right to get education about various issues related to adolescent reproductive health. As revealed by Table 8, 48 per cent students did not agree that providing adolescence education to boys and girls would lead to undesirable results. More urban students (61.7%) than rural (49%) and tribal (43%) and more boys (58%) than girls (46.5%) agreed to the need of educating adolescents about the changes occurring during adolescence.

Attitude towards Strategies for Introducing Adolescence Education in Schools

As revealed by Table 9, nearly 73 per cent students agreed that both school and parents should provide adolescence education. Nearly 44 per cent students considered that there was no harm for depending on friends and other literature in the absence of any scientific information about adolescents related issue. Nearly 56% considered integration strategy whereas 41 per cent were of the opinion of having adolescence education as a compulsory school subject. Analysis of cultural variations showed that more rural students (78%) than urban (76%) and tribal (68%)

TABLE 8
**Attitudinal Responses of Students regarding Introducing
 Adolescence Education in Schools**

S. No.	Statement	Percentage of Students Who Agree					
		N = 1054 Total	Area-wise			Gender-wise	
			Urban	Rural	Tribal	Boys	Girls
1.	Adolescents should not be given education regarding contraceptives	23.2 (58.5)	19.5 (64.0)	28.3 (58.9)	24.0 (51.7)	24.1 (63.0)	22.4 (53.9)
2.	Every adolescent has the right to get education about various related issues to adolescence education	82.8 (4.4)	86.7 (3.2)	84.0 (3.8)	78.2 (6.1)	83.9 (6.1)	81.7 (2.5)
3.	Since the changes occurring during adolescence are more sexual and personal in nature, there is no need to educate the adolescents about these changes	24.4 (52.5)	17.2 (61.7)	29.8 (49.1)	29.1 (43.9)	28.0 (58.1)	20.6 (46.5)
4.	Providing adolescence education to boys and girls will lead to undesirable results	24.4 (47.7)	17.9 (53.4)	24.2 (49.8)	32.4 (39.4)	28.0 (50.4)	20.6 (44.9)

Note : Figures in Parenthesis are showing the percentage of students disagree with the Statement.

considered the role of both school and parents important for imparting adolescence education.

More boys than girls agreed to depend on friends and on co-education in the absence of other sources of information. Boys in large number preferred to integrate adolescence education in school syllabi and textbooks.

III. INFLUENCE OF SOCIO-ECONOMIC VARIABLES ON AWARENESS LEVEL AND ATTITUDE OF STUDENTS

So far awareness level of students in different cultural setting was concerned, a significant difference was found among the

TABLE 9
**Attitudinal Responses of Students regarding Strategies for
 Introducing Adolescence Education in Schools**

S. No.	Statement	Percentage of students Who Agree					
		N = 1054	Area-wise			Gender-wise	
			Urban	Rural	Tribal	Boys	Girls
1.	Both school and parents should provide education about various changes and developmental process	73.3 (11.8)	75.6 (10.0)	77.6 (11.3)	67.9 (14.2)	73.5 (14.6)	73.2 (8.8)
2.	In the absence of any scientific information about adolescence related issues, there is no harm in depending on friends and other literature	44.2 (23.0)	41.5 (24.8)	49.1 (19.2)	43.9 (23.5)	48.1 (28.1)	40.1 (17.5)
3.	Co-education provides opportunities to boys and girls for interaction and sharing ideas, therefore there is no need for adolescence education in school	26.4 (52.3)	26.9 (53.6)	23.4 (57.0)	27.9 (47.2)	29.3 (56.1)	23.3 (48.2)
4.	Adolescence education should not be taught as a compulsory subject in schools	40.9 (40.6)	42.7 (39.4)	35.1 (49.4)	43.0 (35.5)	43.9 (43.1)	37.7 (37.9)
5.	Adolescence education should be made a part of school syllabi and textbooks	55.8 (23.7)	55.0 (24.6)	62.3 (23.0)	52.0 (23.2)	64.6 (21.7)	46.5 (25.9)

urban, rural and tribal students. Urban students were also having favourable attitudes towards ARH issues followed by rural and tribal students. Gender was not observed influencing the awareness level of students, but culture specific influence was seen. In urban areas, the awareness level of male students was significantly higher than female students. However, gender was found influencing the attitude of students. Male students were having positive attitude than female students in all the three cultural settings. Marital status was not found influencing the awareness level as well as the attitudes of students in general

and in different cultural settings in particular. Religion in general was also not found influencing the awareness level and attitude of students towards ARH issues. However, only in urban area the awareness level of Christian students was significantly higher than that of Hindu, Muslims and other students. The same was true with the attitude score. Significant F-ratio of the awareness (23.99) and attitude scores (2.88) of students belonging to different castes revealed that caste does influence the awareness and attitude level of students. Caste-wise analysis also revealed that students belonging to general category (37.2 mean score) were more aware than the students of other castes categories. Students belonging to scheduled tribes (32.5 mean score) were least aware. Similar findings were observed with regard to attitude score. Caste-wise analysis in different cultural setting indicated that caste influenced the awareness level of students living in urban and tribal areas but not in rural areas. So far attitude of students was concerned, caste was found influencing the attitude of students towards ARH issues only in rural areas.

Educational level of parents was also found significantly related with the awareness level and attitude of students. Awareness score increased with the increase in level of educational qualification of parents. Student's awareness score was also found more as per their mother's educational level than that of father's. Analysis of variance of both awareness and attitude scores as per their father's and mother's educational level in different cultural settings presented that educational level of parents in general and mother's education in particular influenced the awareness and attitude of students about adolescents reproductive health issues. Occupational level of parents was also found influencing the awareness level. Students whose parents were engaged as agricultural labourer or driver were found least aware (33.9 mean scores) whereas those whose parents were doctors/engineers/journalists were having the highest mean awareness scores (38.7). The same trend was observed in their attitude mean score (80.5, 87.3 mean score, respectively). Students whose mothers were teachers were in second place both for awareness and attitudinal scores. Cultural variation in the awareness and attitudinal level was also observed. We may say that better the occupational level of parents, more awareness and more positive attitude towards

ARH issues. In urban area, students whose father was teacher or army personnel and mother was doctor/lecturer/lawyer/engineer was found more aware as well as having positive attitude towards ARH issues. In rural and tribal areas, students whose parental occupation was college lecturer/journalist/lawyer were found most aware. Students whose mothers were in business in rural areas were found second most aware, whereas in rural and tribal areas occupation was not found influencing the attitude of students.

Family type was not found having any influence on the awareness level and attitude of students. Not much variation was found in the mean awareness and attitude scores of students belonging to nuclear family or joint family system. The influence of parental income in terms of the awareness level and attitude of students was not consistent. However, students belonging to poor families with parental income less than Rs. 3000 per annum were found least aware (34.3 mean scores) and having very less favourable attitude towards ARH issues. The same was the case in attitude scores.

One of the findings regarding exposure to different media indicated that students exposed to different media were better aware than those who were not exposed. However, students who were exposed to radio were less aware than those who were not exposed to. The influence of magazines was the highest followed by newspaper, stories and television. Nearly 92 per cent students reported of viewing films. About 60 per cent students gave their preference to see films dealing with social issues. Only 15 percent students liked to see films having violence.

Recommendations

As adolescents are not homogenous group, before planning any intervention, there is strong need to have database of the needs and problems of adolescents in different socio-cultural settings. More and more studies, to obtain valid, accurate and reliable data should be undertaken. Besides survey, indepth analysis of adolescents' needs is very essential as many of the issues related to adolescents are personal and sensitive in nature. There is a need to conduct research studies related to sexual behaviour and sexual relationships. To get correct

response about this intimate behaviour through survey is very very difficult. There is a need to adopt rigorous method of research and analysis for studying behavioural relationships and of the socio-cultural co-relates.

Though different States implementing adolescence education have conducted some rapid needs assessment studies, there is no national level survey on this area. There is a need to conduct a National level database of adolescent needs in reproductive health issues of adolescents. Such needs assessment will help in improving the designed country-wide reproductive health programme and identifying gaps and approaches needed for its successful implementation.

Needs assessment can also serve as a baseline study for later evaluation to determine what worked and what did not work. Based on needs assessment study, evaluation and impact studies should be planned. Needs assessment studies taking variables like school stages, age of the adolescents, nutritional status, number of children in the home, home environment, etc. should be conducted. Needs of adolescents who are out-of-school are different from those in the school. Studies regarding the needs of adolescents who are out of school should also be undertaken.

The study recommends both parents and schools should impart adolescence education to students. Different strategies needs to be involved so that parents and school work hand in hand to interact about adolescent reproductive health issues with adolescent students. Low level of awareness demands that the contents related to adolescence education should be integrated. The findings of this study also reflect on the integration of adolescent reproductive health content in syllabi and textbooks. Studies, therefore, need to be conducted to analyse the syllabi and textbooks for knowing the status of adolescence education content and identifying entry points for integration.

Conclusion

The study provides broad trends regarding the level of awareness and attitude of students of Madhya Pradesh related to various adolescent reproductive health issues. The study has highlighted that students have low awareness about various aspects of

physiological and psychological development. A large number of students either wrongly reported or were not aware about issues related to growing up aspect, health, pregnancy, inter-personal relationships, HIV/AIDS/STDs and drug abuse. Particularly the level of awareness about ARH issues was low among tribal and girl students. Peer pressure among tribal students was stronger than urban and rural students. Besides, in consistency in their responses about awareness and attitude towards ARH issues was also observed. For example in Table 8, nearly 82.8 percent agreed to the need of education about various ARH issues, at the same time 25 per cent considered these issues of personal nature and education of these issues would lead to undesirable results. One can say that this may be as a result of lack of education in respect of these issues. This was also supported by the students themselves. A large majority of students from all the three cultural settings desired that education in adolescent reproductive health should be given in schools. Though their responses varied regarding how and who should do it, whether parents or school or both, whether through integration or as a separate subject or through co-curricular activities or a combination of all, however, majority desired that both school and parents should help them clarify adolescent reproductive health related issues.

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Nationwise Comparison of Learning Approaches and Learning Difficulties of Undergraduate Medical Students

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ABSTRACT

The present study explored the difference in learning approaches and difficulties of Indian and non-Indian undergraduate students of medical science. A locally developed inventory was used to measure learning approach and learning difficulties. Data collected from Indians, students from Gulf Countries, North Americans and Malaysians were compared.

The scores on various scales of the inventory indicate that Non-Indians are more afraid of and less confident regarding examination and course completion and have significantly less positive perception about academic capability. They adopt more surface approach as compared to Indians. Scale representing non-academic distracters was found associated with subscales of learning approaches. Differences in academic problems were also observed between nationalities.

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STUDENTS approach their learning in different ways depending on the context and environment in which the learning takes place. Characteristics of the teaching, the curriculum and the student are the three major components, which influence student learning. Teaching and course characteristics produce a variety of learning environments or contexts, which cause students to vary their approach to learning in response to these pressures (Newble & Entwistle; 1986). Marton and Saljo (1976) in Gothenburg have carried out some seminal work in the area of 'approaches to learning'. From the interview-based data, they identified deep and surface approach to reading an academic article. Various instruments have been developed in the later years to examine student approaches to learning. Approaches to Studying Inventory (ASI) (Ramsden and Entwistle, 1981) and the Study Process Questionnaire (SPQ) (Biggs, 1987) are the two instruments, which have been used most extensively in Australia and United Kingdom.

An orientation toward comprehending the meaning of learning materials and an orientation towards merely reproducing those materials were the two fundamental orientations consistently identified across various samples of higher education (Richardson, 1994; Kember & Leung, 1998). In the former the student seeks the underlying meaning in study material, while in the later attention is directed towards reproducing the material they believe is likely to come up in the assessments. A number of studies in the literature highlighted cultural specificity of approaches to learning (Biggs, 1990; Kember & Gow, 1990; Klimidis et al., 1997). The meaning orientation factor seems to be reproducible while reproducing orientation seems to be culture-specific. It was felt that approaches to studying should not be considered in isolation from the educational, institutional and cultural context of study (Sadler-Smith & Tsang, 1998). Different approaches might arise because of cultural diversity, limited language ability and nature of schooling and upbringing of students.

Many a time students express difficulties with the courses they are studying. These difficulties may influence the process of learning. The frequently reported problems in the literature are difficulty in organising study time effectively, overloaded

feeling with vast study material, decreased motivation, difficulty in seeing the relevance of some subjects, difficulty in recalling previously acquired knowledge, difficulty in applying acquired knowledge to practical situations (Coles, 1990). Presage factors like traditional conceptions of learning and teaching imbibed from early youth, language ability in the current medium of instruction, cultural values and expectations concerning achievement and lifestyle factors requiring adjustment in the new environment are some of the factors which may affect the student's performance directly or indirectly through their influence on learning process (Biggs, 1990). Thus, there is a general consensus in the literature to consider cultural specificity in approaches to learning.

Kasturba Medical College is a self-financing institute, with a sizable component of foreign students. The College enrolls 125 foreign students to medical course every year from all over the world. The majority of the students are from Malaysia, USA/ Canada (North Americans) and Gulf Countries. With increasing focus on training foreign students, there is a need to understand and respond to cultural diversity. Investigators stress the importance of understanding the phenomenon of learning by examining the students' experiences (Marton, Hounsell & Entwistle, 1997). The present study was motivated by this concern and focused on comparisons between Indian and non-Indian students. The study explored the learning difficulties and learning approaches that may vary according to the students' cultural origin.

Objective : To find out whether there is difference in the learning approaches of medical students with respect to nationality and the likely causes of difference in approaches.

Methods : Approaches to Learning Inventory (ALI) was used to collect data on approaches to learning and learning difficulties (Shreemathi, 2001). This inventory was developed to collect data on approaches to learning and learning difficulties of health profession students, taking into account the students' English language ability and Indian academic environment.

The ALI is a self-report questionnaire containing 90 items. 53 items of this inventory were grouped into 9 subscales for the purpose of comparison between groups and the remaining items were treated individually to obtain qualitative data. Further, subscales 1-3 were treated as subscales under the main scale 'Negative Approach' to learning and subscales 4-7 were treated as subscales under the main scale 'Positive Approach' to learning.

Students' response to each item was scored on a five-point Likert-type scale from 5 for 'Always' to 1 for 'Never'. Adding the response to each item on the subscale resulted in the score for each subscale. Adding the subscale scores produced main scale scores. The meaning of the scale and subscales are shown in Table 1.

The items under the subscales of negative approach, non-academic distractors scale and English language ability scale are worded in such a way that low scores are desired on those scales.

Example : I find it difficult to speak and express myself in English.

Higher scores on subscales of negative approach indicate that the respective negative approach is more pronounced. Higher scale scores indicate that non-academic distractors are a more significant problem. On the English language scale, higher scale scores are associated with lower or less proficient English language ability.

The items under subscales of positive approach are worded in such a way that high scores are desired on those scales.

Example : After each examination I review my answers and try to correct myself.

Higher the score on subscales of positive approach, more is the respective positive approach/characteristic.

These scales and subscales were validated by experts and tested for construct validity. The internal consistency coefficient, Cronbach's Alpha for these scales and subscales were within the acceptable limits (Shreemathi, 2001).

The scales and subscales of the inventory in their original form (Shreemathi, 2001) were retained in the present study. The

TABLE 1
ALI Scales and Scale Description

<i>Scales and Sub scales</i>	<i>Description</i>
Negative Approach (NA) includes :	
1. Fear of Failure and Lack of Confidence (FF&LC)	Lack of confidence in completing the course and asking questions, anxiety about examination.
2. Perceived Academic Inadequacy (PAI)	Failures to distinguish, understand, summarise and recollect.
3. Surface Approach (SA)	Intention to complete task requirement, rote learning, memorise information needed for assessments and accepting teachers' opinion without thinking.
Positive Approach (PA) includes :	
4. Motivation and Interest (M&I)	Intention to obtain highest possible grades, interest and involvement in reading.
5. Organised Study (ORG)	Organise time and material for studying appropriately, regular revision.
6. Strategic Processing (SP)	Use of study aids, discussing while studying, solving previous examination papers.
7. Deep Processing (DP)	Active questioning in learning, effort to understand new material, relating ideas to previous knowledge and relating concepts to everyday experience.
8. Non-Academic Distractors (NAD)	Homesickness, uncomfortable living environment, personal, health and financial problems.
9. English Language Ability (ENG)	Difficult to understand, speak, read and write in English.

TABLE 2
Cronbach's Alpha for Scales and Subscales

<i>Scales and Subscales (No. of Items)</i>	<i>Alpha (n = 949)</i>
Fear of failure and lack of confidence (4)	0.61
Perceived academic inadequacy (4)	0.61
Surface approach (4)	0.65
Negative approach (12)	0.79
Motivation and Interest (6)	0.56
Organised study (9)	0.76
Strategic processing (8)	0.66
Deep processing (8)	0.77
Positive approach (31)	0.88
Non-academic distractors (6)	0.64
English language ability (4)	0.66

internal consistency coefficient, Cronbach's Alpha for scales and subscales from the present data are shown in Table 2.

Sample : The sample for the study consisted for first to final year undergraduate medical students studying in Kasturba Medical College, Manipal, Karnataka. More than 98% of these students were from different regions of India, different nations and away from their parents. Data was collected approximately 6 to 10 weeks before their university (final) examination. The inventory was administered to a total of 979 students by cancelling a lecture class of one hour. The students were assured of confidentiality of the information given and requested to complete them on the spot. Of these only 949 students responded to all the items constituting various scales and subscales of the inventory. The data was cross-classified with respect to nationality. India (n = 606), Gulf Countries (n = 65) (students from all Gulf Countries were clubbed together), Malaysia (n = 109), North America (students from the U.S. and Canada), (N = 111) were the main countries which contributed to our sample. Representatives from other countries (n = 58) were excluded from this study as the sample from each country was less than fifteen.

Results

One-way analysis of variance followed by post hoc comparisons–Modified Least Significant Difference Procedure was applied to study the association between nationalities and scale scores.

Table 3 shows nationwide comparison of scale scores of the inventory, scores on various scales of the inventory significantly with nationality.

TABLE 3
Nationwise Comparison : Mean and Standard Deviation of
ALI Scale Scores

<i>Scales</i>	<i>India (606)</i>	<i>Gulf Countries (65)</i>	<i>North America (111)</i>	<i>Malaysia (109)</i>	<i>F-value</i>	<i>P-value</i>
Fear of failure and lack of confidence	8.97 3.25	9.86 3.56	11.05 3.72	10.10 3.63	14.02	<0.001
Perceived academic inadequacy	10.07 3.03	11.18 3.56	11.64 3.43	11.01 2.96	10.78	<0.001
Surface approach	8.60 3.26	9.98 3.82	10.84 3.64	11.01 3.78	25.95	<0.001
Negative approach	27.63 7.47	31.03 9.79	33.52 8.90	32.12 8.00	25.08	<0.001
Motivation and interest	19.75 4.13	18.74 4.08	17.59 4.36	17.63 3.82	14.72	<0.001
Organised study	26.30 6.67	26.09 6.83	24.50 6.22	27.06 5.96	3.14	<0.05
Strategic processing	25.00 5.54	25.35 5.45	23.44 5.00	25.07 5.14	2.90	<0.05
Deep processing	26.30 5.82	25.05 6.56	23.55 5.74	24.85 5.57	8.19	<0.001
Positive approach	97.35 18.04	95.23 18.78	89.08 17.67	94.61 16.20	6.95	<0.001
English language ability	5.21 2.04	4.40 0.92	4.50 1.55	5.40 2.31	7.68	<0.001
Non academic distractors	12.37 4.29	12.25 4.16	14.89 4.45	12.17 4.03	11.72	<0.001

Post hoc comparison indicated that the differences were mainly between Indians and non-Indians. Compared to Indian students, North Americans ($P < 0.001$) as well as Malaysians ($P < 0.01$) scored significantly higher on fear of failure and lack of confidence. Score on perceived academic inadequacy was found significantly higher for students from North America ($P < 0.001$), Malaysia ($P < 0.05$) and Gulf Countries ($P < 0.05$) compared to Indians. Compared to Indian students, North Americans ($P < 0.001$), Malaysians ($P < 0.001$) as well as students from Gulf Countries ($P < 0.05$) scored significantly higher on surface approach. On main scale negative approach, North Americans ($P < 0.001$), Malaysians ($P < 0.001$) as well as students from Gulf Countries ($P < 0.01$) scored significantly higher compared to Indian students.

North Americans scored the least on positive approach and all its subscales. North Americans ($P < 0.001$) as well as Malaysians ($P < 0.001$) scored significantly less on motivation and interest compared to Indians. Malaysians scored higher than any other group on organisation. Their score was significantly higher compared to North Americans ($P < 0.05$) and Indians ($P < 0.05$). Indians scored significantly higher on strategic processing ($P < 0.05$), deep processing ($P < 0.001$) and on main scale positive approach ($P < 0.001$) compared to North Americans.

Language was found to be a significantly greater problem for Malaysians ($P < 0.01$) and Indians ($P < 0.01$) compared to North Americans and students from Gulf Countries. The problem of non-academic distractors was found to be significantly greater for North Americans compared to Indians ($P < 0.001$), Malaysians ($P < 0.001$) as well as students from Gulf Countries ($P < 0.001$).

As seen from Table 4 higher percentage of North Americans had the problems of non-academic distractors. Various academic problems were experienced by higher percentage of North Americans and Malaysians.

Correlation between approaches to learning subscales, non-academic distractors scale and English language ability scale are shown in Table 5. The score on non-academic distractors scale has shown significant correlation with subscales of negative approach in all the four groups. The score on English language ability scale has shown significant correlation with the negative approach subscales of Indians and Malaysians.

TABLE 4
Percentage of Students Experiencing Various Learning Difficulties/Factors Hindering Learning*

<i>Abbreviated Items</i>	<i>Indians (606)</i>	<i>Students from Gulf Countries (65)</i>	<i>North Americans (111)</i>	<i>Malaysians (109)</i>
Non-academic Problems				
1. Inability to adjust to the living environment	24.9	32.3	62.2	33.9
2. Not getting healthy food	44.7	53.8	48.6	40.4
3. Personal/family related problems	29.5	20.0	48.6	22.0
4. Homesickness	20.6	27.7	41.4	20.2
5. Poor financial condition	16.8	9.2	27.9	26.6
6. Worry about health	22.9	21.5	26.1	13.8
7. Studying for the sake of parents	16.2	18.5	21.6	19.3
Academic Problems				
8. Overloaded feeling due to vast syllabus	56.3	67.7	67.6	76.1
9. Poor teaching	41.3	38.5	56.8	38.5
10. Inaudible lectures	20.1	20.0	45.9	33.9
11. Difficulty in following the varying pronunciation and accent of English	10.7	24.6	45.9	27.5
12. Irrelevant topics	26.6	26.2	27.0	33.0
13. Inability to concentrate during lectures	39.8	43.1	57.7	48.6
14. Falling short of time to answer all the questions in the examination	31.5	27.7	34.2	42.2

* *Students experiencing the problems always, most often and often were clubbed together to compute the percentage.*

TABLE 5
Correlation between Approaches to Learning Scales, Non-academic Distractors Scale and English Language Ability Scale

	<i>Indians (n = 606)</i>		<i>Students from Gulf Countries (65)</i>		<i>Americans (111)</i>		<i>Malaysians (109)</i>	
	NAD	ENG	NAD	ENG	NAD	ENG	NAD	ENG
FF&LC	0.45***	0.29***	0.44***	0.08	0.34***	0.17	0.58***	0.30***
PAI	0.37***	0.23***	0.37**	0.14	0.32***	0.15	0.48***	0.30**
SA	0.29***	0.20***	0.31*	0.11	0.43***	0.17	0.18	0.25**
NA	0.47***	0.31***	0.42***	0.13	0.44***	0.20*	0.53***	0.37***
M&I	-0.06	-0.07	-0.03	-0.02	0.03	0.13	-0.16	-0.07
ORG	-0.04	0.04	-0.11	0.14	-0.25**	0.14	-0.08	-0.02
SP	-0.04	-0.02	0.17	0.11	-0.12	0.03	-0.06	-0.03
DP	-0.03	-0.06	0.10	0.09	-0.21*	0.10	-0.09	-0.15
PA	-0.05	-0.03	0.04	0.11	-0.18	0.13	-0.12	-0.09

Pearson's correlation coefficient

* $p < 0.05$ ** $P < 0.01$ *** $P < 0.001$

Discussion

Present study supports the literature that approaches to learning vary systematically from one culture to another. Mean scale scores on various positive and negative approach scales and subscales indicated that students from Gulf Countries were closer to Indians on their learning approach. Most of these students were non-resident Indians. maximum difference in approach was between Indians (English is not the mother tongue) and North Americans (native English speakers). North Americans scored higher on subscales of negative approach and lower on subscales of positive approach. Biggs (1990) reported similar findings in his study. He found that students for whom English was a second language scored significantly higher on deep and achieving approach than did native English speakers, whatever their first language. At both secondary and tertiary levels, Australian and British born obtained the lowest scores on deep approach, European and Asian (both English second language group) the highest.

Difference in learning approaches may be due to the difference in percentage of students experiencing various learning difficulties

(Table 4). The problem of non-academic distractors was significantly more for North Americans compared to others. Difficulty in adjusting to the living environment, unavailability of healthy food, personal/family related problems, homesickness, poor financial condition and worry about health were the main distractors of North Americans contributing to the difference in scale score. This scale has shown significant correlation with subscales of negative approach (Table 5) and significant negative correlation with organised study and deep processing scales in case of Americans. Babel (1986) reported similar problems regarding adjustment of foreign students studying in the universities of Rajasthan.

English language ability scale also has shown significant correlation with the negative approach subscales of Indians and Malaysians. The scale score indicated significantly more language problem in Indians and Malaysians (Table 5).

Another likely cause of comparatively poor learning approach of non-Indians is their inability to adjust to the academic environment. Academic problems like overloaded feeling because of vast syllabus, difficulty in following the varying pronunciation and accent of English language, inaudible lectures, inability to concentrate during lectures, time management in the examination and irrelevant topics were reported by a higher percentage of North Americans and Malaysians (Table 4). Teachers at this college are from different regions of India with different native languages. Since the language of instruction is English, students find it difficult to follow the varying accent and thus have difficulty in concentrating during lecture.

Academic and non-academic problems can cause fear of failure, lack of confidence and poor perception about their ability that leads to poor study approaches. The extent of influence of these factors depends on personality characteristic of the individual. It is also a component that influence student learning (Fransson, 1977).

Teaching hours in Kasturba Medical College for health science courses are long (8 a.m to 5 p.m), 6 days in a week. Lecture method is the common teaching method, especially during the first two years of the curriculum. Class size is more than 100 students in a class. Vast syllabus, increased workload leads to anxiety followed by poor study approaches. Students who are

anxious about tests are prone to adopt surface processing (Fransson, 1977). Many studies reported the association between workload and surface approach (Ramsden & Entwistle, 1981; Meyer & Parsons, 1989; Entwistle & Tait, 1990). Chambers (1992) reported that there is a close relationship between perceptions of workload and perceptions of difficulty.

In addition to pointing to difference in learning approach between Indian and non-Indian students the present study highlighted the difference in academic problems and demonstrated correlation between a scale representing non-academic distractors and subscales of learning approach. The study highlights the need to consider difference in learning approach among the students of medical science courses that have an overseas intake.

Conclusion

- Difference in learning approach is to be taken into account among the students of medical science courses that have an overseas intake.
- Non-academic distractors like inability to adjust to the food, living environment, homesickness, personal and financial problems are likely to cause poor learning approaches.
- Varying pronunciation, varying accent of communication language and heavy workload may also influence learning approaches.

It is necessary to ensure that courses and teaching approaches are adequate in meeting the needs of foreign students. In addition to this, students are to be helped to overcome non-academic problems to improve their learning approach.

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Primary School Teachers in Haryana : Explorations into their Working Conditions

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ABSTRACT

The teacher plays a major role in implementing the policies and schemes formulated to achieve a breakthrough in the expansion and qualitative improvement in education. Reflecting on the crucial role of teachers in national development, the National Policy on Education, 1986 and its revised version 1992 called for a substantial improvement in the conditions of work and quality of teacher education. The International Conference on Education held at Geneva in 1996 has also discussed in detail the ways and means to strengthen the role of teacher in a changing world. Keeping in view the vast illiterate population in our country, the role of the primary school teacher as an agent of social change is all the more important for the well-being of future generations. With all the advances in educational and information technologies, it is neither possible nor desirable to replace the teacher. The best way of attracting competent persons to teaching profession is to enhance the status of teaching community and provide suitable working conditions. Dellors (UNESCO, 1996) in his report 'Learning the Treasure Within' strongly advocated that improvement in the quality of education depends on improvement in the recruitment, training, social status and conditions of work of teachers, they need appropriate knowledge and skills, personal characteristics and professional prospects and motivation, if they are required to meet social expectations.

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EFFECTIVENESS and performance of teachers depends upon a number of variables. Availability of suitable working conditions is one such factor. Kapoor (1983), Majumdar (1985), Dhyani (1986), Singh (1990) and Mattoo and Shekhar (1992) studied working conditions of teachers in terms of school buildings and physical facilities. They found that 15% to 20% primary schools lacked pucca buildings. A large number of schools did not have basic facilities like drinking water, sanitary, electricity and playground. Negligible percent of schools had adequate facilities of almirah, boxes, libraries and map-stands. The Sixth All India Educational Survey, NCERT, (1993) also reported that 16.27% of primary schools lacked buildings, 35% had only one room and 56% lacked drinking water. Shukla and others (1994) in a sample survey of 22 states found that four rooms seemed available for every five-class groups and two-third of the schools had drinking water facility. Chalam (1992) and DPEP survey of schools in low-literacy districts in eight states (World Bank 1997) indicate that the availability of instructional materials in primary schools remains limited.

Students in schools with better facilities often have higher level of achievement. Govinda and Varghese (1993) found that students in schools with good or very good facilities scored twice as high in Hindi and mathematics as those in schools with 'no building' or a 'poor building'. Saxena, Singh and Gupta (1995) found that physical facilities of schools were important correlates of student achievement in Karnataka, Madhya Pradesh and Orissa.

Teachers' workload is an important aspect of working conditions, which affects their work efficiency. Manuel (1965), Pal and Ghosh (1967), Panda (1985), Singhal (1988), Singh (1990), etc. studied teachers' workload in secondary and higher secondary schools. They found that the workload of private school teachers was more than that of government school teachers due to large size classes and job insecurity. Poor working conditions and heavy workload lead to stress, anxiety and frustration in teachers. Studies done by Shandilya (1990), Overbaugh (1990), Sudhira (1994) and Paratkar (1994) showed relationship between frustration and service conditions and significantly higher job stress among private and semi-government school teachers as compared to those in government schools.

The nature of school climate varies from school to school due to variance in administrative style of headmaster. Singh (1988), Pandey (1985), Chakraborti (1990), Chopra(1996), Jayajothi (1992) studied school climate and leadership behaviour of the principals of secondary schools in relation to job satisfaction and morale of teachers. They reported that the teachers in open and congenial climate schools enjoyed more job satisfaction and had higher morale than those in closed climate schools.

The review of related studies reveals that not much attempts have been made so far to cover all aspects of teachers' working conditions in primary schools. There is also a feeling that the primary school teachers, particularly those working in rural areas in our country have to work under difficult and pitiable conditions and the situation is getting worse with the passage of time owing to the shortage of financial resources and suitable teaching material but much empirical evidence does not exist to support this observation. Hence, an exploratory study was undertaken to find out the working conditions of primary school teachers working in different settings.

Objectives

- To study and compare the working conditions of primary school teachers in rural and urban settings.
- To suggest the remedial measures to improve the working conditions of teachers.

Delimitations

- The study was confined to Haryana state only.
- Further, it was confined to 40 primary schools – 20 situated in rural areas and equal number in urban areas of two districts of Haryana, i.e. Ambala and Sirsa.
- It was confined to eight dimensions of teachers' working conditions, namely (i) general features of the school, (ii) school building, facilities and instructional materials; (iii) work load, (iv) time spent to reach to work place, (v) service conditions, (vi) provisions of in-service education, (vii) school climate, and (viii) professional anxiety.

Research Questions

The following research questions were answered in the present study :

1. Whether essential school facilities required for effective functioning like blackboard, chalk, duster, tat-patti, chair for the teacher, drinking water, toilet, etc. are available in rural and urban primary schools?
2. Whether instructional materials like textbooks, teachers' guides, reference material, library, A.V. aids, equipment, etc. are available in rural and urban primary schools?
3. How much workload and what type of work the primary school teachers are expected to perform in rural and urban settings?
4. How much time rural and urban primary school teachers spend to reach to their place of work?
5. What type of service conditions like recruitment procedure, salary structure, other service benefits, transfer policy, promotional avenues, etc. exist in rural and urban primary school teachers?
6. Whether in-service education facilities are available for primary school teachers in rural and urban settings?
7. What type of climate exists in rural and urban primary schools?
8. What is the level of professional anxiety of rural and urban primary school teachers?

Methodology

(a) *Selection of Sample* : There are 16 districts in Haryana in which 5206 primary schools are situated (NCERT, 1993). The study was conducted on 40 primary schools functioning in two districts of Haryana, i.e. Ambala and Sirsa. The selection of district was made on the basis of the highest and the lowest literacy percentage in the state. Out of three high and three low literacy percentage districts, one district from each type was selected randomly. Then 20 primary schools from rural area and equal number from urban area were selected randomly from each district. All the teachers present on the day of data collection were covered in the study.

(b) *Tools Used* : The following tools were developed for collection of data :

- (a) School Information Schedule

- (b) Teacher Working Conditions Questionnaire
- (c) Teacher Professional Anxiety Scale
- (d) Interview Schedule
- (e) Observation Schedule

The psychometric properties of the above stated tools were as follows :

- *School Information Schedule* includes nature of schools, school buildings, surrounding, working shifts, helping staff, school cleanliness, working hours and school facilities.
- *Teacher Working Conditions Questionnaire* (TWCQ) consists of availability of instructional materials, workload, time spent to reach to work place, service conditions, provision of in-service education, school climate and academic guidance.
- *Teacher Professional Anxiety Scale* includes fear of administrative action against teacher due to students' low pass percentage in the examination, students' absenteeism, tension due to non-completion of homework on time by students, fear of transfer against their wish, emotional instability due to heavy load of work, lack of proper academic guidance, lack of opportunities for creative work, remote chances of promotion and anxiety due to forceful departmental order to attend training programmes during vacations.
- *Teacher Interview Schedule* includes items related to adequacy of school facilities and instructional material, workload, teacher pupil ratio, HM and teachers relationships, teacher-teacher relationships and teacher-student relationship.
- *Observation Schedule* includes infrastructure and resources of the school.

(c) *Collection of Data* : The data were collected personally from 180 teachers working in 40 schools of two districts of Haryana. They were approached through District Primary Education Officer (DPEO) of each district. Out of 180 teachers, 62 teachers were further interviewed.

(d) *Analysis of Data* : Percentages were calculated to compare various dimensions of working conditions of teachers in rural and urban schools.

Findings

1. School Features

As shown in Table 1 general features of rural and urban primary schools are as follows :

TABLE 1
General Features of Rural and Urban Schools

S.No.	Variables	Percentage of Schools		
		Rural	Urban	Total
1.	School Surrounding - Quiet	80.00	45.00	62.50
2.	School Shift - Single	100.00	85.00	92.50
3.	Peon	-	30.00	15.00
4.	Safai Karamchary	-	40.00	20.00
5.	School Sanitation	100.00	100.00	100.00

- (i) A little more than 60% sampled primary schools of Haryana are situated in quiet surroundings. More rural (80%) than urban (45%) schools are located in peaceful surrounding. It indicates that the surrounding of majority of urban schools is noisy and not congenial for academic purpose.
- (ii) All the rural schools run in single shift as against 85% urban schools.
- (iii) The services of group D employees are available only at 20% sampled schools. However, these are not available in any of the rural schools.
- (iv) Rural and urban schools are cleaned daily. However in rural schools, children themselves clean their classrooms and school premises whereas this task is performed by safai karmacharis in 40% urban schools.

2. School Building, Facilities and Instructional Materials

A few observations with regard to school facilities presented in Table 2 are as follows :

- (i) A large majority of sampled primary schools are housed in pucca buildings. A little more than half of them possess 1-3 rooms whereas one-third have 4 - 6 rooms and 12.5% have more than six rooms. Not much difference is found between rural and urban schools with regard to availability of number

TABLE 2
Facilities and Instructional Material in Rural and Urban Schools

S.No.	Variables	Percentage of Schools		
		Rural	Urban	Total
	2	3	4	5
1.	Quality of school building Pucca	95.00	85.00	90.00
2.	No. of rooms			
	(a) 1 - 3	55.00	50.00	52.50
	(b) 4 - 6	35.00	35.00	35.00
	(c) More than 6	10.00	15.00	12.50
3.	School facilities			
	(a) Staff room	10.00	25.00	17.50
	(b) Hall/big room	10.00	20.00	15.00
	(c) Blackboard, chalk, duster	80.00	90.00	85.00
	(d) Tat-patti	50.00	60.00	55.00
	(e) Fans	35.00	50.00	42.50
	(f) Chair for the teacher	60.00	70.00	65.00
	(g) Drinking water	85.00	75.00	80.00
	(h) Separate toilet	45.00	55.00	50.00
	(i) Library	30.00	30.00	30.00
	(j) Playground	70.00	65.00	67.00
	(k) Play material	25.00	50.00	37.00
4.	Instructional material			
	(a) Textbooks	80.00	95.00	87.00
	(b) Teacher's Guides	65.00	60.00	62.50
	(c) Children Literature	45.00	45.00	45.00
	(d) Dictionary	35.0	60.00	47.50
	(e) Newspapers	10.00	15.00	12.50
	(f) Magazines	-	10.00	5.00
	(g) Journals	10.00	20.00	15.00
5.	A.V. aids and equipment			
	(a) Maps	50.00	65.00	57.00
	(b) Charts	75.00	60.00	67.50
	(c) Globes	60.00	60.00	60.00
	(d) Radio-cum-taperecorder	100.00	100.00	100.00
	(e) Film projector	-	-	-
	(f) T.V./VCR/VCP	-	-	-

of rooms. It indicates that a little than half of the sampled schools do not have independent classrooms for each class. Two or more than two classes are managed in one room which adversely affects teachers' work efficiency. Students are also not able to pay proper attention on what is taught in the class.

- (ii) Very few schools have independent staff rooms and big rooms/hall for meetings or cultural functions. Not much difference is observed between rural and urban schools with regard to staff room and hall.
- (iii) Desks are not available in government-managed primary schools. Tat-patti is available in 55% schools. In remaining 45% schools children have to bring their own mats. Fans are available in 42.5% schools and play material in 37.5% schools. Urban schools score over rural schools with regard to availability of tat-patti, fans and play materials.
- (iv) A large number of schools possess blackboard, chalk and duster and chair for the teacher in the classrooms with drinking water and playground facility. Not much difference is found between rural and urban schools with regard to these facilities.
- (v) Separate toilet facility for boys and girls is available in 50% schools. Urban schools are in a little more comfortable position than rural schools with regard to this facility.
- (vi) Only one-third schools have library. Urban schools do not differ with rural schools with respect to library facility.
- (vii) Textbooks and teacher's guides are the only instructional material which are available in a majority of primary schools. Children's literature and dictionary is available in less than 50% schools. The position of urban schools is better than rural schools with regard to dictionary.
- (viii) A majority of schools have maps, charts and globes. Maps are available more in rural than in urban schools.
- (ix) All rural and urban schools possess radio-cum-tape recorder. Other educational equipment like film projector, radio, T.V./VCR, etc. are not available in any of the schools.

The position of school infrastructure was also noted on the basis of personal observations as well as opinions expressed by the teachers who were interviewed. It was confirmed that a large

TABLE 3
Work-load of Teachers in Rural and Urban Schools

S.No.	Work-load	Percentage of Teachers		
		Rural	Urban	Total
1.	No. of classes taught			
	(a) One	76.13	85.86	81.11
	(b) Two	21.59	11.95	16.66
	(c) Three	2.28	2.19	2.23
2.	No. of students taught			
	(a) Upto 40	51.13	60.86	56.10
	(b) 41- 60	35.23	28.25	31.66
	(c) 61 - 80	13.64	10.89	12.24
3.	No. of weekly hours devoted on checking note books			
	(a) 1 - 5	37.50	25.00	31.11
	(b) 6 -10	50.00	57.60	53.88
	(c) 11 -15	12.50	17.40	15.01
4.	No of weekly hours devoted on co-curricular activities			
	(a) Upto 1	28.40	25.00	26.66
	(b) 2 - 4	64.77	70.65	67.77
	(c) More than 4	6.83	4.35	5.57
5.	No. of weekly hours devoted on non-teaching work			
	(a) Upto 1	32.95	39.13	36.11
	(b) 2 - 4	46.59	42.39	44.44
	(c) More than 4	20.46	18.48	19.45

* It indicates teachers handling students of two or more than two classes at a time (multigrade situation).

majority of primary schools were housed in pucca buildings with adequate natural light and air in rooms. They run in single shift with six and half daily working hours. Majority of them did not

have independent classrooms for all the five classes. In certain cases, two or more classes were clubbed together and held in the same room and in other cases they run either in corridors or verandahs. Majority of schools had essential facilities like blackboards, chalk, duster, chair for the teachers, textbooks, Teacher's Guides, almirahs and boxes for keeping the materials. As most of them did not have separate store rooms to keep the almirahs and boxes properly these were adjusted either in various classrooms or in corridors/verandahs. In a good number of schools, children brought their own tat-patti or mats. Minimum facilities like staff rooms, HM's rooms, separate toilets for boys and girls, electric-fans, play materials, reference materials, library, etc. were also not found in a large number of schools.

It is a proven fact that adequate play material, reference material, children's literature, modern educational equipment etc. are essential for imparting quality education to pupils. During interview a large number of teachers expressed that non-availability of instructional material had reduced their effectiveness. They further added that they often did not get the essential teaching aids and materials easily due to their inadequate number in the schools and also fear of their damage or loss. Hence, they mostly depend upon the prescribed textbooks.

3. Work-load

Teacher's work-load is judged in terms of number of classes taught, number of students taught, number of hours devoted on checking notebooks/written assignments, co-curricular activities and non-teaching.

An investigation of Table 3 indicates the following results :

- (i) A large majority of primary teachers teach all subjects to one class and about 1/5 handle multiple classes. Not much variation is found between rural and urban teachers with regard to number of classes being taught by them.
- (ii) A little more than half of the teachers teach upto 40 students whereas 44% teach 41-80 students at primary level. The proportion of teachers teaching students upto 40 is higher in urban schools. It indicates that rural school teachers

have to accept responsibility of greater number of students than urban teachers.

- (iii) About 70% teachers devote 6-15 hours per week on checking home work and written assignments of their students. Urban teachers devote more time on correction work than their rural counterparts.
- (iv) A majority of teachers spend 2-4 hours per week on organisation of various co-curricular activities like games, sports, cultural and literary activities.
- (v) A majority of teachers have to devote upto 4 hours per week on non-teaching work whereas about 20% teachers devote more than 4 hours per week. Not much difference is found between rural and urban teachers on this aspect. Due to forceful involvement of teachers in various non-academics duties, they do not get the prescribed instructional time to interact with the children which adversely affects their work performance.

The opinion expressed by the teachers who were interviewed also confirmed that they were expected to perform a number of non-teaching work like collection of fees/funds from students, distribution of official letters, circulars, etc. to nearby schools maintaining records of library books, teaching aids, furniture, etc. Some of them informed that they had to collect salaries from BEO's office and distribute books, uniforms and financial assistance to SC/ST/BC students. Teachers were also involved in a number of other miscellaneous activities such as literacy campaign, family planning drive, educational surveys, distribution

TABLE 4
**Time Spent by Teachers on Reaching in
Rural and Urban School**

S.No.	Time Spent	Percentage of Teachers		
		Rural	Urban	Total
a.	Up to 10 minutes	22.73	39.13	31.11
b.	Half an hour	55.68	54.35	55.00
c.	One hour	17.05	4.35	10.56
d.	Two hours	4.54	2.17	3.33

of food to draught sufferers, distribution of photo identity cards to nearby villagers, etc.

4. Time Spent on Reaching to Work Place

Table 4 reveals that a majority of primary school teachers, irrespective of the area, spend minimum half an hour to reach to their place of work. Due to close proximity of schools from their residence about 40% urban school teachers take upto ten minutes whereas more than one-fifth teachers engaged in rural schools have to spend 1-2 hours daily in travelling to reach to their place of duty.

5. Service Conditions

The minimum qualification prescribed for recruitment as a primary school teacher in the government school is senior secondary examination pass with Junior Basic Training (JBT) Certificate. His pay scale is the same as the scale of primary teachers in Kendriya Vidyalayas. There is no merit promotion scheme for teachers in the state. Teachers are given higher scales after 10 and 20 years of regular satisfactory service. A JBT teacher is promoted as a head teacher on the basis of seniority of service alone. There is no provision of study leave for the teacher to join courses to improve their qualifications. Retirement benefits such as pension, provident fund, gratuity and group insurance are available to teachers. There is no transfer policy in the state. Transfers are done throughout the year. There are 40% teachers who reported that they have been transferred 6-15 times during their service. Frequent transfers of teachers from one place to another or from one institution to another affect their professional commitment to the institution and the students.

6. Inservice Education Facility

District Institutes of Education and Training (DIETs) and State Council of Educational Research and Training (SCERT) provide inservice education to primary school teachers for their professional development. More than 90% teachers reported that they have attended one to three inservice training programmes during their service. Rural teachers have attended more inservice programmes than their urban counterparts.

TABLE 5
Perception of Teachers about Various Dimensions of School Climate in Rural and Urban Schools

S. No.	Dimension of School Climate	Percentage of Rural Teachers		Percentage of Urban Teachers		Percentage of Total Teachers			
		Always	Sometimes	Never	Sometimes	Always	Sometimes	Never	
1.	HM's democratic attitude	62.50	35.22	2.28	47.82	3.27	56.50	41.70	2.80
2.	HM's cordial relations with teachers	78.13	23.87	-	13.04	4.36	79.44	18.33	2.22
3.	HM's impartial behaviour	84.10	3.40	12.50	9.78	10.86	81.70	6.70	11.70
4.	HM as a facilitator	68.18	26.13	5.69	29.34	5.45	66.70	27.80	5.50
5.	Intimacy among teachers	31.81	63.63	4.56	51.08	8.69	36.11	57.22	6.70
6.	Bickering among teachers	3.40	15.90	80.70	13.04	86.96	1.70	14.40	83.90
7.	Cooperative attitude of teachers toward students	75.00	22.72	2.28	7.61	-	83.90	15.00	1.10
8.	Concern of teachers towards students' discipline and punctuality	12.50	64.36	26.14	77.17	13.05	11.11	69.44	19.44

7. School Climate

Social climate is the resulting condition within the school from socio-emotional relationships between the teachers and the head teacher, among teachers themselves and between the teachers and students. Out of the total sample of 40 schools, the staff of about three-fourth schools perceive the overall social climate of their schools congenial. Rural teachers find the school climate more social and democratic than their urban counterparts.

Perception of teachers about various dimensions of school climate was analysed to study in depth the leadership style of

TABLE 6
**Level of Professional Anxiety among Teachers
 in Rural and Urban Schools**

<i>Level of Anxiety</i>	<i>Percentage of Teachers</i>		
	<i>Rural</i>	<i>Urban</i>	<i>Total</i>
Low	20.45	21.74	21.11
Average	63.64	61.96	62.77
High	15.91	16.30	16.12

the head teachers, behaviour of teachers with each other and with their students (Table 5). About three-fourth teachers perceive the behaviour of the head teacher impartial and relations cordial with the staff. About two third perceive him as a facilitator who always tries to support them while half of them find his attitude and style of functioning democratic.

TABLE 7
**Percentage of Teachers Showing High
 Anxiety on Selected Items**

<i>S. No.</i>	<i>High Anxiety Item</i>	<i>Percentage of Teachers</i>		
		<i>Rural</i>	<i>Urban</i>	<i>Total</i>
1.	Fear of transfer against their wish	29.17	43.90	73.07
2.	Worry about student absenteeism	24.72	35.06	59.78
3.	Tension due to non-completion of homework on time by students	27.50	29.17	56.67

About teachers' group behaviour, a large majority of teachers reported no bickering among them. However, only one-third has high intimacy with each other. Majority of teachers exhibit cooperative attitude towards the students and take some initiative in developing in them values of discipline and punctuality.

Comparison between rural and urban teachers on various dimensions of school climate indicates that the head teachers of rural schools score over their urban counterparts with regard to only one dimension, i.e. 'headmaster's democratic attitude towards the faculty'. On the contrary urban teachers take more initiative in nurturing the growth of the students by providing extra support and instilling in them values of discipline and punctuality than rural teachers. On all other dimensions of school climate not much variation is seen between the perception of rural and urban teachers.

8. Teacher's Professional Anxiety

Worries, tension, fears and emotional instability related to various aspects of teaching profession determine the level of teachers' professional anxiety. It is one of the variables which adversely affects their work efficiency.

An investigation of Table 6 indicates that majority of teachers experience average level of anxiety in the profession and not much variation is seen between rural and urban teachers on this aspect. The data was further analysed to find out incidence of high anxiety on individual items of the Anxiety Scale.

A look at Table 7 indicates that a large percentage of teachers tend to show high professional anxiety on three out of 20 items of Anxiety Scale, viz. frequent transfer against their wish, student absenteeism and non-completion of homework on time by students. Further, urban teachers are found more worried about their frequent transfers and student absenteeism than their rural counterparts.

Conclusions and Implications

On the basis of findings of the study the following conclusions are drawn which have implications on the educational planners and administrators :

1. Working conditions of teachers in urban area schools of Haryana are decidedly better in comparison to rural schools with regard to separate toilet facility for boys and girls, availability of services of group D employees and Safai karamcharis, tat-patti, electric fans, play material, textbooks, reference materials and play materials. Further, teachers working in rural schools carry more work-load in terms of size of the class, number of classes they have to teach and time they have to devote on non-academic duties than their urban counterparts. There is an urgent need to remove this disparity by improving teachers' working conditions and pupils' learning conditions in rural schools.
2. In all other matters, rural and urban schools have commonalities and differences do not exist between them with regard to quality of school building, number of rooms, teaching aids and equipment and other school facilities, Majority of rural and urban schools run in pucca buildings of one to three rooms have blackboard, chalk and duster, chair for the teacher, a few teaching aids like charts, globes, science and mathematics kits and radio-cum-tape recorder, drinking water and play ground facilities. However, a few other facilities like head-teacher's room, separate staff room, hall/big room, library, newspapers, magazines, journals, children literature and modern educational equipments are not available in most of the schools. There is a need to equip all primary schools with essential school facilities and instructional material, Further, teachers should also be motivated to use teaching aids and equipment to generate proper teaching-learning climate in schools.
3. In addition to their normal teaching work, primary school teachers are involved in a number of non-teaching duties like collection of fees, distribution of official dak, maintenance of various types of record registers, participation in literacy campaigns, educational surveys, family planning drives, etc. There is an urgent need to relieve teachers from non-academic duties as far as possible to provide better working climate for teachers and more learning opportunities for children.

4. An appreciable number of teachers working in rural schools have to come from a long distance and travel 1-2 hours daily. The time spent in journeys from home to school and back to home can be saved by providing them accommodation on subsidized rates near the school or by transferring them to a school near to their residence.
5. A well-planned career advancement scheme should be introduced for primary school teachers to motivate dynamic and meritorious teachers to aspire for higher administrative posts in the Education Department.
6. Lack of well-defined transfer policy creates tension and anxiety among teachers. There is a need to formulate systematic transfer policy for teachers in the state.
7. Student absenteeism in primary schools particularly in rural schools is a crucial problem, which adversely affects students' learning achievement. Teachers and head teachers should be motivated to mobilize parents and community leaders' support to arrest the problem.
8. Primary school teachers are, by and large, satisfied with the overall social climate in their schools. However, the social climate in rural schools is reported to be more congenial than in urban schools. It indicates that the head teachers in rural schools are more democratic and supportive than their counterparts in urban schools.

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A Study of Low and High Salaried Group Teachers Teaching Visually Impaired in Relation to their Adjustment and Job Satisfaction

NIKHAT YASMIN SHAFEEQ*

ABSTRACT

An attempt has been made to investigate the difference between the mean scores of low and high salaried group teachers teaching visually impaired in relation to their adjustment and job satisfaction. In total, 37 teachers were selected randomly from two schools. ' Teachers' Adjustment Inventory by S.K. Mangal and Job Satisfaction Scale' by Meera Dixit were employed to collect the data. The data were analysed by employing Mean, S.D. and 't'-ratio.

It was found that salary does not make any major effect on adjustment power of the teachers. Since the difference between the mean scores of low and high salaried teachers on adjustment is insignificant even at 0.05 level of confidence. The other finding is that low salaried teachers are more satisfied in their jobs in comparison to high salaried teachers. This may be because the first group may not have high aspirations in life and they are satisfied in their profession.

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IT is well known that a teacher is a nation builder and a real maker of history, therefore a good teacher must have a balanced personality because every time – inside and outside the classroom and school, he is watched or observed by scores of eyes. A good teacher is kind and polite because he/she has to interact with so many people all the time, who directly influences his/her students. It has been seen in practical life that a child gives more weightage to his teachers in comparison to his parents. It means a teacher's personality has more impact on one's life. Sometimes children think about their teachers as their ideal heroes of their life. A good teacher is supposed to have a scientific bent of mind and understanding of his/her profession and must have a sense to feel his paramount importance. Pressey, Robinson and Horrocks (1959) rightly remarked, "There could be no more interesting and exciting time than the present to enter the profession of teaching." Nation's prosperity and destiny will always depend upon her citizens. Therefore, a good teacher must be academically and characterwise sound.

As we know that destiny of the nation is shaped in the classroom. John Adams describes the teacher as a 'maker of man'. He is the torch bearer of race and guardian of the future mankind. He is the keyman on whom depends the future of the child and the mankind. He plays an important role in shaping and moulding the personality of a child. In the words of Dr. S. Radhakrishnan, *"The teachers' place in society is of vital importance. He acts as the pivot for the transmission of intellectual traditions and technical skills from generation to generation and helps to keep the lamp of civilization burning and shining. He not only guides the individuals but also decides the destiny of the nation. If we want to have an idea about a nation prosperity then we can have it only by looking at the conditions and status of its teachers. Because a nation's well-being depends on the teachers' well-being. According to NPE (1986) "the status of the teacher reflects the socio-cultural ethos of a society; it is said that no people can rise above the level of its teachers."*

Environment of teachers teaching special need children is markedly different from that of teachers in general. Good learning requires a good sense of seeing, hearing and touching

with intelligence. Visually disabled children lack one of the most important senses i.e. seeing, which helps in learning. Therefore, they cannot be taught with demonstration, experiments, models, living examples, etc. They are unable to see all these things, only they can understand the things with their touching sense and intelligence. Therefore, teachers of visually impaired children have to do more labour and require special competencies to make their students understand the learning matter clearly. He should be painstaking, sympathetic, appreciative and trustworthy and should have more interest in teaching, patience and tolerance power. They should be of extraordinary calibre as these children may need repetition of the subject matter so many times. In brief, they should have a balanced personality, i.e. they should be highly adjusted and satisfied with their jobs. Therefore, they should be rewarded with more handsome salary in comparison to teachers teaching normal children. According to NPE (1986), "The method of recruiting teachers will be reorganized to ensure merit, objectivity and conformity with spatial and functional requirements. The pay and service conditions of teachers have to be commensurate with their social and professional responsibilities and with the need to attract talent to the profession."

Hence it is accepted that salary of a teacher plays important role in his/her socio-economic adjustment and in job satisfaction also. If a teacher receives sufficient amount as a salary then he/she feels satisfied with his/her job and can fulfill his/her family expenditure smoothly and can also adjust happily in social circle, otherwise he/she remains hand-to-mouth and reluctantly has to live a socially cut-off life. Dixit (1993) opines that unless a person is satisfied with his job he cannot do justice with the job. These attitudes are related to specific factors such as salary, service conditions, advancement opportunities and other benefits. National Institute of Basic School Education (1960) identified the difficulties of basic school teachers. The data was collected from 409 basic school teachers. Findings of the study showed that- (i) Problems relating to organisation of staff and attitude were felt more acutely in full grade basic schools than in junior basic schools, (ii) Problems

relating to craft were felt acutely by a majority of the regions related to lack of libraries, paucity of literature, difficulties pertaining to craftwork and provision of residential quarters for the teachers. Pati (1993) identified the problems of teachers surviving in adult education centres. The sample consisting of 5 men and 5 women was taken from each rural, urban, tribal, industrial slum areas. The findings of the study are – (i) If the salary is not sufficient for a service holder for maintaining his family, he/she would always look for the other better job and will not pay that much attention to his/her present job; (ii) All the teachers from four types of habitation reported that their salaries were not sufficient for them and their payment was irregular also; (iii) The majority of teachers of both sexes were engaged in other sources of earnings. In case of job satisfaction of teachers there are certain other factors which are also important such as intrinsic aspect and rapport with students.

Some studies like Barker (1953), Reddy (1997), Pithers and Fogarty (Mar.1995) and Kumar Reddy & Srinivas (Oct.97-June 97) have been conducted to study adjustment and teacher effectiveness. Similarly, researches in the field of stress and job satisfaction have been conducted by Nair (1974), Smilansky (1984), Kathleen, Karies and Dorothy (1986), Hodge, Jupp and Taylor (1994), Boyle, Borg, Falzon and Baglioni Jr. (1995) and Tahira Khatoon and Z. Hasan (2000). But very few attempts have been made to study the teachers of special need children, particularly teachers of visually impaired. The investigator could not find even a single study in which low and high salaried group teachers teaching visually impaired were studied in relation to their adjustment and job satisfaction.

Objectives of the Study

1. To find out the significance of difference between the mean scores of low and high salaried teachers in relation to their adjustment.
2. To know the significance of difference between the mean scores of low and high salaried teachers in relation to their job satisfaction.

Hypothesis : It was hypothesised that –

1. There exists a significant difference in adjustment of low and high salaried teachers.
2. There exists a significant difference in job satisfaction of low and high salaried teachers.

Methodology

Sample : Sample (on both the sexes) comprised of 37 teachers who were randomly selected from Ahmadi School for Blinds, AMU, Aligarh and Shri Ajanandji Maharaj Andh Vidyalaya, Haridwar.

Tools : Two tests namely ‘Teachers’ Adjustment Inventory’ by S. K. Mangal (1982) and ‘Job Satisfaction Scale’ by Meera Dixit (1993) have been employed to collect the data.

Procedure : Of the total sampled teachers (37), nineteen were found drawing salary below Rs. 3000 p.m. and above Rs. 3000 p.m. As the employer prescribes the recruitment process and the qualification, these are the same for all teachers. Since the educational qualifications are highly correlated with intelligence and socio-economic status, it can be assumed that these variables stand controlled. Moreover, the social background of teachers working in the special schools is more or less the same. It can be safely assumed that all the variables correlated with adjustment and job satisfaction stand controlled. The investigator applied interview technique for administering the tools for both sighted and blind teachers because tests were not available in Braille for the blind teachers. The data were analysed by employing Mean, S.D. and ‘t’- ratio.

Results and Analysis

The sample comprised of 37 teachers (N) teaching visually impaired students. The investigator has divided the whole sample on the basis of their salary as – low (<Rs.3000 p.m.) and high (> Rs.3000 p.m.) salaried groups to know whether their mean scores differ significantly on adjustment and on job satisfaction or not. The analysed data is summarised in the form of tables given below :

TABLE 1.1
**Categorisation of Low Salaried Teachers in
 Terms of Levels of Adjustment**

<i>Category</i>	<i>Description</i>	<i>No. of Teachers</i>
A	Very Good Adjustment	00
B	Good Adjustment	00
C	Average Adjustment	01
D	Poor Adjustment	13
E	Very Poor Adjustment	05

Table 1.1 shows the results of low salaried teachers so far as adjustment is concerned. Five low salaried teachers belong to the category of 'Very Poor Adjustment' while 13 have 'Poor Adjustment' and only one teacher has 'Average Adjustment'. It is very strange to know that no teacher has 'Very Good' or 'Good Adjustment'. Figure 1.1 supports this view.

Fig. 1.1 : Showing the Levels of Adjustment Power of Low Salaried Teachers

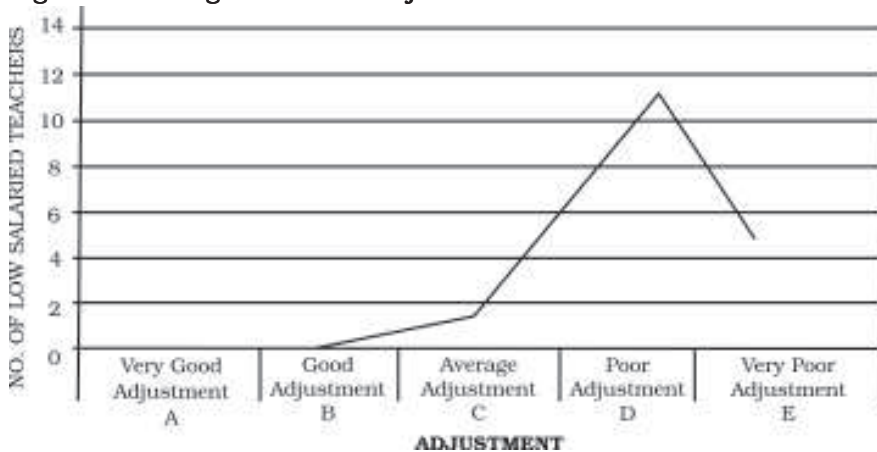


TABLE 1.2
**Categorisation of High Salaried Teachers in
 Terms of Levels of Adjustment**

<i>Category</i>	<i>Description</i>	<i>No. of Teachers</i>
A	Very Good Adjustment	00
B	Good Adjustment	00
C	Average Adjustment	03
D	Poor Adjustment	10
E	Very Poor Adjustment	05

Table 1.2 indicates surprising results because in spite of high salary, no teacher has 'Very Good' and 'Good Adjustment'. Only three have 'Average Adjustment' but ten and five teachers have 'Poor' and 'Very Poor Adjustment,' respectively. This is also clear from Figure 1.2.

Fig. 1.2 : Showing the Levels of Adjustment Power of High Salaried Teachers

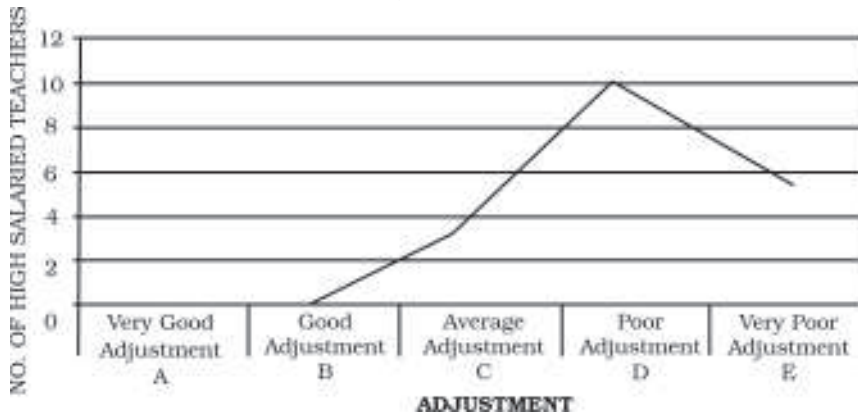


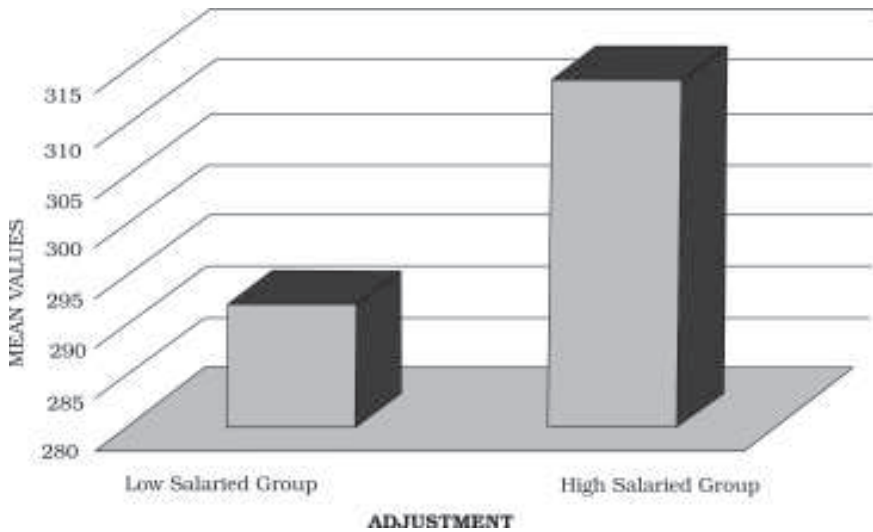
TABLE 1.3
Significance of Difference between the Mean Scores of Low and High Salaried Group Teachers on Adjustment

Group	N	M	S.D.	't' - ratio	Level of Significance
Low salaried group	19	292.42	39.23	1.23	Insignificant at .05 level of confidence
High salaried group	18	313.83	62.10		

Table 1.3 depicts that out of 37 teachers 19 were of low salaried group and 18 were of high salaried group. The mean scores (M) of low and high salaried groups are 292.42 and 313.83, respectively. Both the groups have standard deviation (S.D.) of 39.23 and 62.10, respectively. Though the difference between the two mean scores is there but not significant as the 't'- ratio is only 1.23. It is insignificant even at .05 level of confidence. The 3-D graph (Figure 1.3) plotted below also clarifies the above investigation. Thus the hypothesis that there exists a significant difference in adjustment of low and high salaried teachers is rejected. It may be because of the fact that nowadays problem of unemployment is so alarming that if a person can find a job even

at low salary, he finds himself adjusted in comparison to others who are unemployed.

Fig. 1.3 : Showing the Mean Values of Low and High Salaried Group Teachers on Adjustment

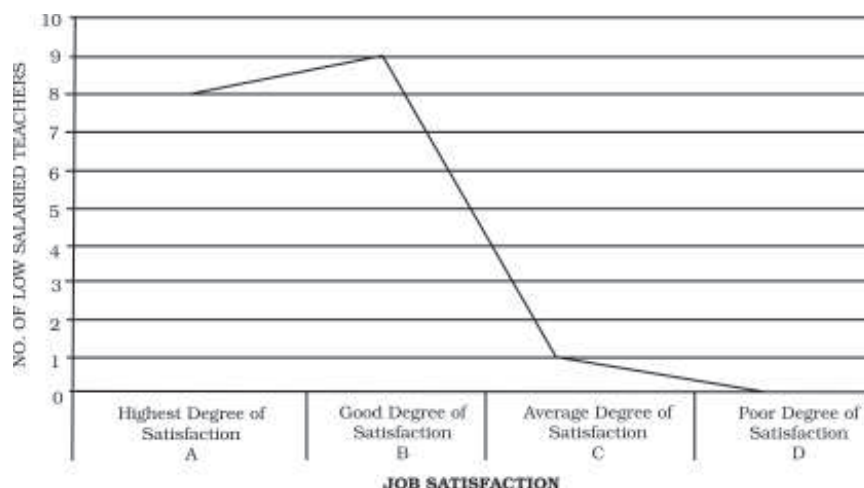


**TABLE 2.1
Categorisation of Low Salaried Teachers
in Terms of Degrees of job Satisfaction**

<i>Category</i>	<i>Description</i>	<i>No. of Teachers</i>
A	Highest Degree of Satisfaction	08
B	Good Degree of Satisfaction	09
C	Average Degree of Satisfaction	01
D	Poor Degree of Satisfaction	00
E	Very Poor Degree of Satisfaction	01

So far as degree of job satisfaction of low salaried teachers is concerned, it is clear from the Table that highest and next to highest number of teachers i.e. nine and eight is of the teachers who have 'Good' and 'Highest Degree of Job Satisfaction' respectively. Similarly only one low salaried teacher has 'Very Poor Degree of Job Satisfaction' and no teacher belongs to the category of 'Poor Degree of Job Satisfaction'. Figure 2.1 shows the same results.

Fig. 2.1 : Showing the Degrees of Job Satisfaction of Low Salaried Teachers



**TABLE 2.2
Categorisation of High Salaried Teachers in
Terms of Degrees of Job Satisfaction**

<i>Category</i>	<i>Description</i>	<i>No. of Teachers</i>
A	Highest Degree of Satisfaction	05
B	Good Degree of Satisfaction	05
C	Average Degree of Satisfaction	02
D	Poor Degree of Satisfaction	00
E	Very Poor Degree of Satisfaction	06

Table 2.2 depicts that unfortunately the highest number i.e. six teachers in spite of high salary belongs to 'Very Poor Degree of Satisfaction'. Five and five teachers show the 'Highest' and 'Good Degree of Satisfaction' respectively. But only two teachers have 'Average Degree of Satisfaction.' This is also clear from Figure 2.2.

When the investigator compared the teachers on job satisfaction on the basis of their salaries, it was found that low salaried got the mean score of 179.15 and S.D. as 14.54. On the other hand, the mean score of high salaried teachers is 152.94 and S.D. is 38.12. The difference between the two means is significant at .01 level of confidence as the 't'- ratio is 2.73. This

Fig. 2.2 : Showing the Degrees of Job Satisfaction of High Salaried Teachers

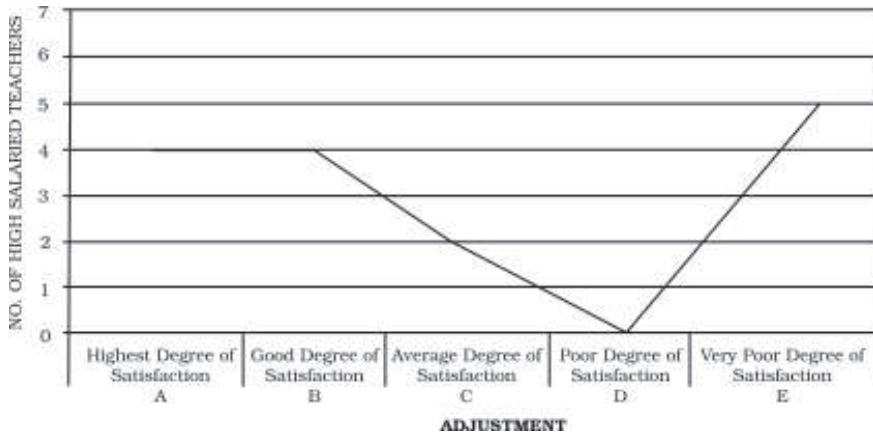


TABLE 2.3
Significance of Difference between the Mean Scores of Low and High Salaried Group Teachers on Job Satisfaction

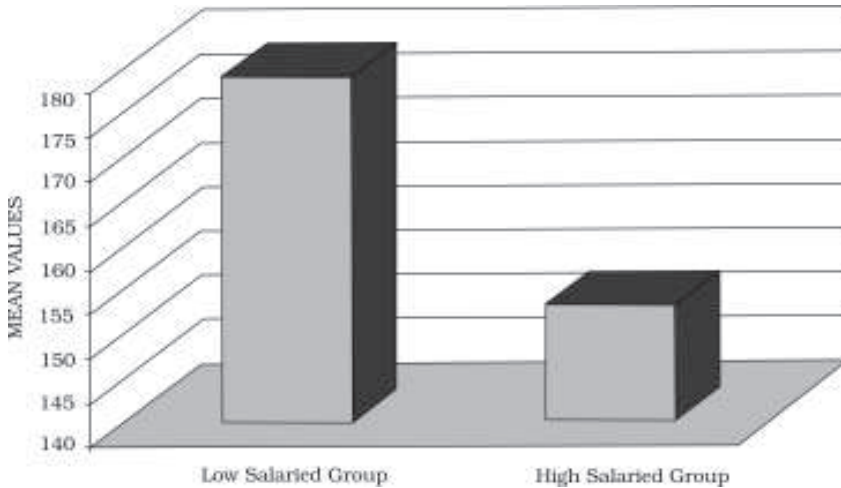
Group	N	M	S.D.	t' - ratio	Level of Significance
Low salaried group	19	179.15	14.54	2.73	Insignificant at .05 level of confidence
High salaried group	18	152.94	38.12		

difference between the means can also be seen in the 3-D graph plotted below (Fig. 2.3). Thus the hypothesis that there exists a significant difference in job satisfaction of low and high salaried teachers is accepted.

There is no other way to reward the efficient and hardworking teachers in the school. Therefore, the increment in teachers' salary is the consequential effect of the number of years he serves the school. As a result teachers drawing more salary (more experienced) are less satisfied with their jobs than their juniors (less experienced) who are drawing less salary.

Most of the people are not ready to teach in special schools and those who are teaching in such schools may be fully dedicated to special need children and salary is not important criterion for them because they are committed to their services and do not care much for their own benefit and they feel satisfied in their profession as they have a purpose to serve in such schools.

Fig. 2.3 : Showing the Mean Values of Low and High Salaried Group Teachers on the Job Satisfaction



Findings and Implications

The whole sample was categorised into two groups, viz. Low salaried (>Rs.3000 p.m.) and High salaried (< Rs.3000 p.m.) group. The findings in this regard lead the investigator to conclude that:

- Salary does not make any effect on adjustment power of the teachers teaching visually disabled. Since the difference between the mean scores of low and high salaried group teachers on adjustment is insignificant even at .05 level of confidence.
- Low salaried teachers are more satisfied in their jobs in comparison to high salaried teachers. Thus salary does not play a vital role in their magnitude of satisfaction. The results in this regard are also corroborated by the findings of Tahira Khatoon & Z. Hasan (2000) regarding the general pattern of teachers' job satisfaction.

Only the specially trained and dedicated candidates should be recruited in such schools who have sympathy for special need children, want to do something for them and have a feeling of social service without caring much for their own benefit-monetary or materialistic gain.

The feeling of social service, sympathy and dedication should be imbibed during the training period in teacher-trainees meant for special need children.

The authorities should arrange orientation programmes from time to time so that the teachers may have up-to-date knowledge. Efforts should be made to improve the teaching-learning environment, teacher-authority relationship, teacher-student relationship, etc. so that high salaried group can be made more satisfied in their jobs because in the opinion of the investigator these factors may be responsible for less satisfaction in their jobs.

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Perceptual Domination in First Standard Children in Urban Schools

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ABSTRACT

Thirty-two children, 16 of either gender studying in first standard of four urban schools located in T.T. Nagar area of Bhopal participated in this study. Their ages ranged from 6 years 10 months to 7 years 5 months. They were individually administered four tasks in the fixed order that banked on perceptual configuration. Obtained data yielded the results :

- (a) On visual symbolic association task, only 16 % of the sampled Ss produced correct association between concrete stimulus and its symbolic form of 4. Another 59% selected figural form of association, while 15% employed incorrect symbolic form of 5 - 6 instead of 4.*
- (b) On one-to-one correspondence of seven elements 37% of these Ss were perceptile.*
- (c) 31% of them were perceptile on cardinal invariance of seven elements.*
- (d) 72% of the Ss showed perceptile behaviour on length task.*
- (e) Task configuration has affected level of perceptual domination of these sampled Ss (84%; 37%; 31 %; and 72%, respectively).*
- (f) Gender differences were silent on all the four tasks.*
- (g) Primary school teachers had been found deficient in the use of conceptual strategies. Hence, it is suggested, they need orientation in how to raise thought provoking questions on Piagetian type tasks for the benefit of their students' conceptual clarity.*

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MANY learning theorists have ascribed generation of knowledge to attributes of perception. Genetic epistemologist Piaget (1972), however, asserts that construction of concrete knowledge by the individual entails escalation of empirical experiences through logico-mathematical operations. From perceptual/empirical experiences, individuals can extract figurative knowledge only. It deals with physical characteristics of objects alone. That is why, Piaget asserted 'knowledge is not simply derived from sensation and perception but from actions.' Knowledge construction in this sense, then, is an active process of generation of meanings by the knower. Experience has been considered as a process of assimilation to existing and/or created mental structure(s). In case, conservation of the concept of whole numbers, say of 7 were perceptually created, then, why do many of the 6-7 year olds happen to be its non-conservers (Pachaury, 1993, 1995, 2000 a and 2000 b). True conservation of number simultaneously implies a cardinal and an ordinal aspect, i.e., a synthesis of class and of the transitive asymmetrical relation, in other words, it means a system of logical operation, co-ordinated among themselves. On the basis of this research evidence (Piaget, 1972), the hypothesis of a sensory origin of knowledge seems doubtful. Piaget (1972) asserted that 'our various forms of knowledge originate neither in sensation nor in perception alone, but in whole behaviour, in which perception merely performs the function of signalling.' Constructivistic perspective emphasizes that knowledge does not reside in the objects/things, etc. but instead, it is created by interacting upon them and transforming them. At the concrete operational level (7 to 11-12 years) of thinking, knowledge is constructed through synthesis of logico-mathematical operations of classification, order and their union in the form of number system together with spatio-temporal functioning. Therefore, mental operations do not reside in perception, proprioceptive or otherwise. If knowledge were wholly encountered through perception only, scientific thinking/instrumentation would have had lost their validity long ago. So would have had happened to scientific creativity, an essential component of Homo sapiens consciousness that has survived till today across cultures and nationalities on our planet, the Earth.

Keeping in view the Piagetian theoretical position on knowledge generation and the role played by perception in it, with the observation that village school entrants manifested perceptual domination on visual-symbolic association (82% boys, 91% girls) and invariance of number (91% boys, 92% girls) tasks (Pachaury, 1996), it was decided to investigate urban school entrants' level of perceptual domination on visual-symbolic association, number and length task configurations.

Research Questions

The following research questions have been addressed through this exploratory investigation :

- (a) What is the level of perceptual domination reflected by the sampled urban school entrants on the tasks of visual-symbolic association; one-to-one correspondence of number; cardinal invariance and invariance of length ?
- (b) Does the task configuration of visual-symbolic association; one-to-one correspondence of number; cardinal invariance and invariance of length affect level of perceptual domination of the sampled Ss ?
- (c) Does the gender affect sampled Ss' perceptual domination on these administered tasks ?

Sample : Thirty-two Ss participated in this study. 4 Ss of either gender were randomly selected from 4 privately managed primary schools located around T.T. Nagar of new Bhopal city. The age range of these Ss had been 6 years 10 months to 7 years 5 months and they were studying in first standard. The subjects were from middle class socio-economic background.

Task Administration : All the tasks were individually administered to the sampled school entrants in the fixed order as shown under assessment of perceptual domination scheme.

Assessment of Perceptual Domination : To assess perceptual domination, the following four tasks were employed. The chief characteristic of these tasks lies in their having perceptual configuration. A requisite degree of conceptual thinking is needed for their proper understanding.

(a) Visual-Symbolic Association

Concrete things in the form of 4 stones formed the stimulus material for this task. The stones were randomly spread on a flat surface before the respondent. He/she had to select a card that represents the stimulus material among the randomly spread 6 cards. Three cards were having a number either 4 and/or 5/6. The other three cards had their figural representation in the form of circles that were randomly marked. The Ss who failed to select the symbolic form of the concrete stimulus material of 4 stones were considered to be manifesting perceptual domination (Pachaury, 1996).

(b) One-to-One Correspondence of Number

A row of seven stones was laid and the Ss had to create an equivalent row out of a pool of 10 stones. The respondents who failed to create one-to-one correspondence of number were considered manifesting perceptual domination (Pachaury, 1995).

(c) Cardinal Invariance

Two rows of seven stones formed the stimulus material for cardinal invariance. One of the rows was expanded on the right side. The other row was kept unchanged. The Ss who failed to produce cardinal invariance for changed/unchanged rows manifested perceptual domination (Pachaury, 1993, 1995, 1996, 2000a and b).

(d) Invariance of Length

The stimulus material for this task consisted of two undisplaced pencils. They were laid in parallel horizontally. One of the pencils was displaced horizontally to the right side (Pachaury, 1985). The Ss who denied invariance of length for displaced/undisplaced pencils were marked perceptually dominant.

Results

The accompanying table presents the number and percentage of the Ss who produced different categories of responses.

I. Level of Perceptual Domination

(a) Visual-Symbolic Association : Table shows that only 16% of the sampled school entrants produced correct association between concrete stimulus of 4 stones to its symbolic form of 4.

Another 25% of them although employed the symbolic form yet the selected numbers were incorrectly represented by 5(15.63%) and 6(9.37%). A large number of the Ss (59%), however, selected figural form of association.

Level of Perceptual Domination Exhibited by the Subjects

<i>Tasks</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>	<i>%</i>	
<i>Vis-Sy Ass</i>					
<i>Symbol</i>					
N4	2	3	5	15.63	
N5	3	2	5	15.63	
N6	1	2	3	9.37	
<i>Figural</i>					
N4	10	9	19	59.37	
<hr/>					
<i>Gender</i>	<i>1:1 Correspondence</i>			<i>Cardinal Invariance</i>	
	<i>7</i>	<i>8</i>	<i>9</i>	<i>Yes</i>	<i>No</i>
Boys	9	4	3	5	11
Girls	11	3	2	5	11
	62.50	37.50		31.25	68.75
<hr/>					
	<i>Invariance of length</i>				
	<i>Yes</i>	<i>No</i>			
Boys	4	12			
Girls	5	11			
%	28.11	71.87			

All together, 84% of the sampled Ss were perceptually dominant on visual-symbolic association task. Of the 16% of the Ss who produced symbolic association of 4, only 60% of them produced 1: I correspondence of number (7 stones). 100% of them asserted that cardinal invariance is not destroyed when one of the stimulus pair rows was deformed perceptually. For length invariance percentage dropped to a low of 20. It is as well interesting to note that none of the sampled school entrants was non-perceptile on all the four administered tasks.

(b) One-to-One Correspondence of Number : One-to-one correspondence of seven stones was correctly produced by 63% (9 boys/11 girls) of the Ss. Incorrect correspondence of 8/9 stones was created by the remaining 37% of the Ss. Therefore, they were perceptually dominant.

(c) Cardinal Invariance : Equal number of boys and girls (11 of each gender), i.e., 69% decided that when a row of the stimulus pair was expanded, the changed/unchanged rows did not alter their cardinality of seven stones. However, the remaining 31% argued that the changed/unchanged rows did alter their cardinality. The changed row increased its cardinality which was also encountered in the earlier studies of 7 to 9 year olds (Pachauri, 1993, 1995, 2000a and b).

(d) Invariance of Length : 28% of the Ss (4 boys/5 girls) were of the view that length of the displaced/undisplaced pencils would remain invariant. Against this percentage, 72% opined that the displaced pencil would measure longer. These Ss, therefore, were in fact perceptually dominant in regard to invariance of length attribute.

II. Perceptual Domination and Task Configuration

84% of the sampled Ss manifested perceptual domination in regard to understanding of symbolic meaning of 4. Of these 59% Ss remained tagged to figural form of 4. Twenty five percent selected 5/6 of symbolic form as the correct choice. Perceptual domination to the extent of 72% was created by the invariance of length task. One-to-one correspondence of number produced this effect to the tune of 37%. 31% Ss were perceptually dominant on invariance of cardinality of 7.

III. Gender Differences

The four administered tasks were checked for producing gender differences by applying the Omega statistic (w) on the percentages of the responses generated by either gender of the Ss. None of the task produced any significant gender difference, since all the w 's were insignificant at an accepted alpha level of 5%. One/two cases difference between boys/girls would create a percentage difference of 3/6 only. A w to be significant at p of 0.05% would be equal to and/or more

than 0.49, hence, all the percentage differences between genders, groups on the administered tasks were found insignificant.

Discussion

It has been observed that proper understanding of number concepts, according to constructivist perspective comes in their symbolic form rather than remaining tagged to its concrete and/or figural form. This explains why 84% of the sampled school entrants were perceptually dominant on visual-symbolic association task. This observation also applies to invariance of length task (72%). Ss who selected incorrectly symbolic form of $\frac{5}{6}$ (25%) were probably worst cases of number understanding. 4.47% of village school entrants also failed to count a set of 4 stones (Pachauri, 1996).

Teachers' transactions in arithmetic classrooms are generally accomplished through cook-book methodology. This kind of teacher scaffoldings at best create figurative and/or perceptual experiences for the children. Consequently, then, when such children face with a task needing escalation of conceptual thinking on the encountered perceptual/figural attributes of a stimulus, they prefer to cling to its sensory properties alone. This phenomenon is further supported by the evidence that 31% of the school entrants were found perceptually dominant on invariance of number of seven. This percentage shot up to 72 for invariance of length. 37% as well failed to create 1:I correspondence of number of seven that forms a pre-requisite for understanding of conservation of number and/or other arithmetic concepts.

Educational Implications

Piagetian tasks employed in this exploratory study bank on three-tier questioning technique. Similarly, Elkindian perceptual tasks should be followed by a thought raising question. Both these measures, therefore, should be useful in inducing conceptual thinking of the children. Hence, it is suggested that the primary school teachers be oriented in how to raise conceptual thinking of children through different school contents. Re-educating primary school teachers seems necessary, because they had been found cognitively not diving deep and using only similar

conceptual strategies and that too to the same extent as reflected by their students (Pachaury, 1998).

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Educational Interests of Tribal and Non-tribal Students in Arunachal Pradesh

A Comparative Study

YOGESH KUMAR*

ABSTRACT

The present study draws a comparison between the tribal and non-tribal students of Arunachal Pradesh in respect of their educational interests. The study was conducted on a sample of 300 students of the secondary stage in the schools of Lohit district in Arunachal Pradesh and was confined to the broad eight areas of educational interest. viz., Science, English, Medical Science, Agriculture, Humanities and Arts, Home Science, Fine Arts and Commerce. The study shows that English is liked most by the tribal boys as well as the non-tribal boys. But the girls, both tribals and non-tribals rate Home Science as their first choice. While Agriculture is liked to a great extent by all, Medical Science is preferred the least by all of them.

ARUNACHAL Pradesh, the territory lying on the north-eastern end of India, is inhabited by a large number of hill tribes speaking different dialects. They belong to certain sections of people who have retained over time their separate and social identity in respect of their customs, beliefs, ways of living and regulations in sharp contrast to their neighbours. The roll strength in schools of Arunachal Pradesh comprises tribal and non-tribal students with different socio-cultural backgrounds. They seem

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to differ in many vital attributes, of which interests are of great value. Interest acts as a strong motivating force for an individual. Researches have shown that achievements are greatly influenced by the nature and strength of interests. Menon (1973) reported greater academic interest and endurance by an overachieving group of boys and girls of superior ability as well as the general group. Lalithamma (1975) observed that the achievement in Mathematics was positively related to interest in Mathematics. Achievement is also found to be a strong personal interest of adolescence because it brings personal satisfaction as well as social recognition. According to Rodman et. al. (1972) and Viernstein and Hogan (1975) if the adolescents are interested in achievements, they must be in the areas that are important to their peers. If peers are interested in academic success, then good grades may be a satisfactory achievement.

Several studies reported that the changes in likes and dislikes of children differed with age and sex (Pressey, 1946; Horrocks and Thompson, 1946; Thomsen and Horrocks, 1947; Horrocks and Bucker, 1951; Kaur, 1990; Hockett and Forry, 1940). Srivastava (1974) reported sex differences in the artistic, musical, outdoor, scientific, library and classical fields. Arora (1988) studied sexwise degrees of importance of reasons motivating students to pursue higher education.

Researches have also attempted in identifying correlates of interests. Joshi (1983) analysed interests of higher secondary students with parents' education, SES, emotional stability, location and self sufficiency. Dasgupta (1986) found that personality and motivation level significantly influenced the range of activities of students. Jain (1984) studied the interests of school students in relation to certain demographic and personality variables. In a few cases, creativity and interest in some areas are found related to each other (Sharma, 1971; Kumar, 1981).

Researches suggest that the determinants of educational choices are multiple and the choices are the product of many internal and external factors. A study conducted by the NCERT (1975) suggested that the major factors underlying the selection of school subjects by the students were mainly the advices of guardians, teachers and friends, attraction towards better employment, special interest in the subject, good marks in

previous class, lack of provision of subject of interest, influence of the teacher, good teaching, possibility of getting high marks in the subject, psychological guidance available, desire to go to school or college, easiness of the subject and parents' educational background. Shah and Uniyal (1986) found self interest as the most effective variable in selection of educational choices among the graduate of various faculties viz., Arts, Science and Commerce. Gautam (1988) and Kaur (1990) conducted studies on educational and vocational interests of students. Arora (1988) made an assessment of the educational and vocational aspirations of Class XII students in relation to parental profession and income.

Several studies have been conducted concerning varied areas of interest. Naik (1963) enquired into the general nature of reading interests and habits in adolescents and adults. Dunakhe (1979) also investigated into reading interests and habits of the first year degree course Marathi students studying in colleges. He found that reading topped the list in the first, second and third choice of leisure activities in case of B.A. B.Com. and B.Sc. students. Sumathykuttyamma (1973) found that science subjects get the third rank among different school subjects. The urban pupils showed significantly higher preference for science than the rural pupils.

Research studies showed that several factors like achievement, motivational level, emotional stability, etc. are influenced by the interest patterns of the individuals. Such dependence is all the more greater when students happen to be the first generation learners like those of the territory of Arunachal Pradesh for which no study of this kind is available. These considerations tempted the investigator to undertake the study of educational interests of tribal and non-tribal students of Arunachal Pradesh.

Objectives : The study was conducted with the following objectives in view :

1. To study the patterns of educational interests of tribal and non-tribal students, taking boys and girls together and separately.
2. To bring out a comparison between tribal and non-tribal

students, taking boys and girls together and separately in the different areas of educational interest.

Hypotheses : In order to achieve the objectives of the study, following null hypotheses were formulated :

1. There is no significant difference in educational interests between tribal students and non-tribal students.
2. There is no significant difference in educational interests between tribal boys and non-tribal boys.
3. There is no significant difference in educational interests between tribal girls and non-tribal girls.
4. There is no significant difference in the rank orders of different areas of educational interest between tribals and non-tribals, taking boys and girls together and separately.

Sample : The sample of the study, selected through stratified random sampling, was consisted of 300 students studying in classes IX to XII of the six secondary and higher secondary schools of the Lohit district in Arunachal Pradesh. The number of tribal and non-tribal students was 150 each in the sample. The tribal group of the sample included 108 boys and 42 girls. The non-tribal group of the sample consisted of 92 boys and 58 girls. The number of tribal and non-tribal boys and girls was proportionate to their actual strength in the schools.

Interest Areas and the Tools : The study was confined to the eight broad areas of educational interest, viz., Science (SC), English (EN), Medical Science (ME), Agriculture (AG), Humanities and Arts (HA), Home Science (HS), Fine Arts (FA) and Commerce (CO). The desired data were collected through 'Educational Interest Record' developed by Prof. V.P. Bansal and Prof. D.N. Srivastava.

Results

't' ratios were computed for determining the significance of difference between means in the eight areas of educational interest between the tribal and non-tribal students taking boys and girls together and separately. Table 1 shows a comparative picture of the tribal and non-tribal students in respect of the eight areas of educational interests.

TABLE 1
Comparison of Educational Interest of Tribal and Non-Tribal Students

<i>Interest Areas</i>	<i>Tribal Students</i>		<i>Non-tribal Students</i>		<i>'t'</i>	<i>Significance</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
Science	8.14	3.85	8.16	3.34	0.04	NS
English	8.56	4.51	8.26	3.81	0.62	NS
Medical Science	4.58	2.83	4.62	3.27	0.11	NS
Agriculture	8.44	3.96	6.58	3.69	4.21	0.01
Humanities & Arts	6.94	3.09	5.96	3.17	2.71	0.01
Home Science	6.69	3.06	6.50	3.31	0.49	NS
Fine Arts	6.82	3.70	6.42	4.00	0.92	NS
Commerce	6.62	3.25	6.00	3.51	1.58	NS

NS – Not Significant 0.01 – Significant at 0.01 Level

The results presented in Table 1 show that there exists significant difference between the tribal and non-tribal students in the two areas of educational interest, viz., Humanities and Arts, and Agriculture. The mean values clearly indicate that the tribal students have greater interest in Humanities and Arts, and Agriculture than the non-tribal students. The difference between the tribal and non-tribal students in the remaining six areas, viz., Science, English, Medical Science, Home Science, Fine Arts and Commerce are not found significant even at 0.05 level of significance.

In view of these results the first hypothesis that there is no significant difference in educational interests between tribal students and non-tribal students is retained except in the two areas, viz., Humanities and Arts and Agriculture.

Table 2 presents the results of significance of difference in educational interest areas between the tribal and non-tribal boys. Table 2 reveals that 't' ratios between the tribal and non-tribal boys are significant in the five areas of educational interest, viz., Agriculture, Humanities and Arts, Home Science, Fine Arts and Commerce. The table indicates that the tribal boys show greater interest than the non-tribal boys in these five areas of interest.

TABLE 2
Comparison of Educational Interest of Tribal and Non – Tribal Boys

<i>Interest Areas</i>	<i>Tribal Boys</i>		<i>Non-tribal Boys</i>		<i>t'</i>	<i>Significance</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
Science	8.68	3.77	8.20	3.31	0.98	NS
English	9.14	4.30	8.76	3.54	0.68	NS
Medical Science	4.83	2.85	4.39	3.13	1.03	NS
Agriculture	9.00	3.96	6.64	3.39	4.22	0.01
Humanities & Arts	7.19	3.19	5.82	3.32	2.95	0.01
Home Science	6.47	3.07	5.33	2.94	2.66	0.01
Fine Arts	7.00	3.79	5.46	3.94	2.79	0.01
Commerce	7.05	3.16	5.63	3.53	2.97	0.01

The difference between the two groups of boys in Science, English and Medical Science are found insignificant. Thus the second hypothesis that there is no significant difference in educational interests between tribal boys and non-tribal boys is rejected except in case of Science, English and Medical Science. 't' ratios for educational interests between the tribal and non-tribal girls are presented in Table 3.

TABLE 3
Comparison of Educational Interest of Tribal and Non – Tribal Girls

<i>Interest Areas</i>	<i>Tribal Girls</i>		<i>Non-tribal Girls</i>		<i>t'</i>	<i>Significance</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
Science	7.14	3.33	8.08	3.37	1.38	NS
English	7.07	4.70	7.46	3.69	0.45	NS
Medical Science	3.93	2.57	4.98	3.45	1.75	NS
Agriculture	7.00	5.58	6.48	3.30	0.74	NS
Humanities & Arts	6.28	2.68	8.34	3.01	0.11	NS
Home Science	7.21	2.88	8.34	3.01	1.90	NS
Fine Arts	6.50	3.43	7.93	3.66	1.99	0.05
Commerce	5.50	3.22	6.64	3.39	1.71	NS

0.05 – Significant at 0.05 Level

Table 3 indicates a significant difference between the tribal and non-tribal girls only in one area, viz., the Fine Arts. Here the non-tribal girls show greater interest than the tribal girls. The differences in rest of the seven areas of interest are not found significant between the two groups of girls. Hence the third hypothesis that there is no significant difference in educational interests between tribal girls and non-tribal girls is rejected in respect of all areas of interest under the study except the Fine Arts.

Table 4 shows the ranks given to the eight areas of educational interest by the tribal and non-tribal groups under the study. It also presents the 'rhos' for the three pairs of the tribal and non-tribal groups. The interest profiles of these groups are also shown in Figure 1.

TABLE 4
Students' Ranks in the Eight Areas of Educational Interest and the 'rhos'

<i>Groups</i>	<i>Ranks</i>								<i>Rho</i>
	<i>SC</i>	<i>EN</i>	<i>ME</i>	<i>AG</i>	<i>HA</i>	<i>HS</i>	<i>FA</i>	<i>CO</i>	
Tribal Students	III	I	VIII	II	IV	VI	V	VII	Significant (0.01)
Non-tribal Students	II	I	VIII	III	VII	IV	V	VI	
Tribal Boys	III	I	VIII	II	IV	VII	VI	V	Significant (0.01)
Non-tribal Boys	II	I	VIII	III	IV	VII	VI	V	
Tribal Girls	II	III	VIII	IV	VI	I	V	VII	Significant (0.01)
Non-tribal Girls	II	IV	VIII	VI	VII	I	III	V	

A close examination of Table 4 and Figure 1 reveals that the tribal boys, non-tribal boys, total tribal students and total non-tribal students rate English as their first choice. While total tribal students and tribal boys rank Agriculture at the second place, their non-tribal counterparts rank Science at the second place. It is also obvious that Home Science stands at first rank and Science at second rank both for the tribal and non-tribal girls. But both the groups of boys, i.e. tribals and non-tribals, give seventh rank to Home Science. Surprisingly Medical Science is reported to be the least interested area by all the groups of tribal and non-tribal students. Another area in which all the groups

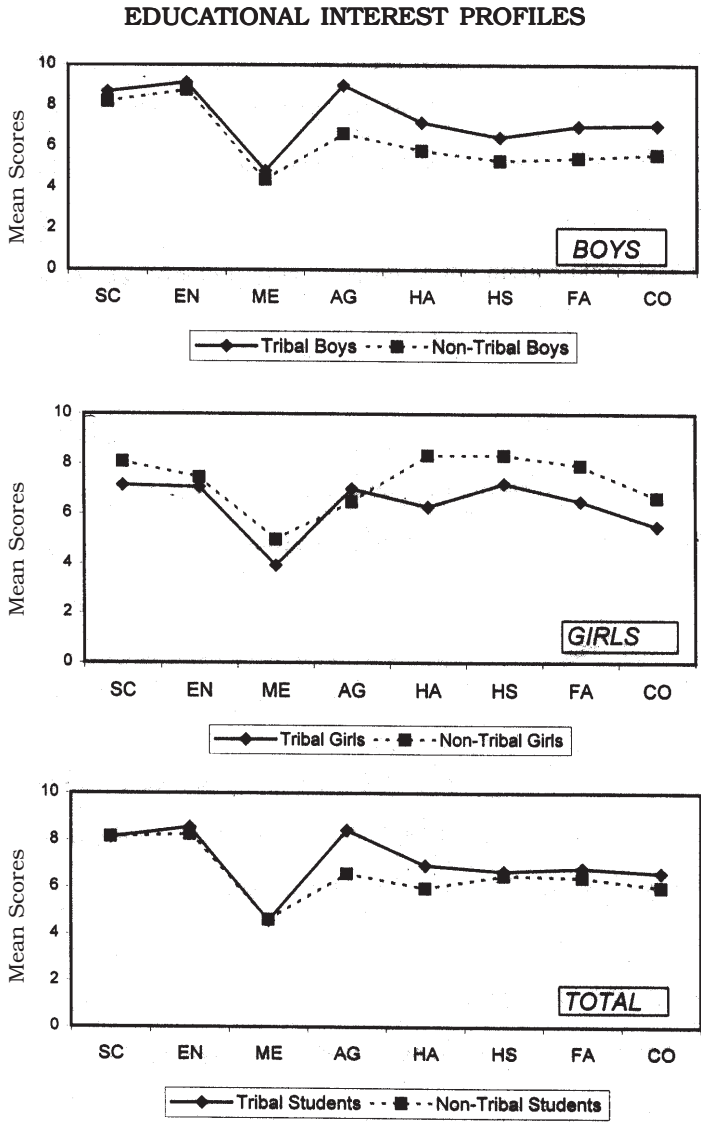


Fig.1

show less interest is Commerce. Humanities and Arts occupies the ranks varying from fourth to seventh by the different group under the study.

As shown in Table 4, 'rho' values for all combinations of the tribal and non-tribal groups are significant. It indicates that there exists a significant correlation in rank orders of the eight areas of educational interest under the study between tribals and non-tribals boys, girls and total students. Hence the fourth hypothesis that there is no significant difference in the rank orders of different areas of educational interest between tribals and non-tribals taking boys and girls together and separately stands retained.

Conclusions

1. English is the most liked area for total tribal students, total non-tribal students, tribal boys and non-tribal boys. But, tribal girls and non-tribal girls rate Home Science at the first place. Agriculture and Science are the other areas of considerable liking for all the groups of students. Surprisingly Medical Science is found to be the least interested area for all the groups of students under study. Humanities and Arts, and Commerce are also found to be the less preferred areas by all the groups.
2. There is no significant difference in the rank orders of the different areas of educational interest between (i) tribal students and non-tribal students; (ii) tribal boys and non-tribal boys; and (iii) tribal girls and non-tribal girls.
3. Humanities, Arts and Agriculture are the two areas in which total tribal students show greater interest than total non-tribal students. Differences in other six areas of interest are not significant for these two groups.
4. Tribal boys show greater interest than non-tribal boys in five areas, viz. Agriculture, Humanities and Arts, Home Science, Fine Arts and Commerce. Differences in the remaining three areas of educational interest are not found significant.
5. Tribal and non-tribal girls do not differ significantly in various areas of educational interest under the study except the one, viz., Fine Arts. Non-tribal girls show greater interest than their tribal counterparts in this area of interest.

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Personality Make-up of Congenitally Visually Impaired and Adventitiously Impaired Children *A Comparative Study*

SANTOSH ARORA*

ABSTRACT

The blind, no doubt, are minority in the world but in India alone, one third of the world's blind population resides. India's share is about 8-9 million. Blindness has a definite and distinctive effect upon the development of the individual's personality, because at least 75 to 80 percent of all impressions which the sighted get are registered through the sense of sight. Thus, blindness is a severe handicap. There is little empirical research in this area. Research and development of their personality has so far been neglected due to inadequate tests and measurement techniques. Blindness from birth need not by itself cause serious developmental delays, yet we know that a large number of congenitally blind children do meet with grave difficulties that result finally in deviant personalities.

These children suffer in a number of ways of which affectional deprivation comprises of unsympathetic behaviour, less attention, insecurity and leads to neuroticism, anxiety maladjustment, aggression and a host of other problems (Gutterman, M. & Genshaft, 1985; Minter and Pring, 1982; Singh, 1985; Nisar, 1990; Sahoo, 1991; Sharma; 1969; Rai; 1988).

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THE blind, no doubt, are minority in the world but in India alone, one third of the world's blind population resides. The aim of the present study is to compare the personality factors of congenitally visually impaired and adventitiously visually impaired children in order to understand their personality vignette. This understanding will help the blind to develop better interpersonal and emotional relationship, thereby integrating them into the normal stream of the sighted world.

Objectives : The present study was conducted with the following objectives in view :

1. To compare the personality factors of congenitally visually impaired children and adventitiously visually impaired children in 16 Personality Factors Questionnaire as propounded by R.B. Cattell (1973).
2. To analyse the Cattell 16 PF and draw a profile to depict the personality structure of congenitally and adventitiously visually impaired children.

Sample : Fifty congenitally visually impaired and 50 adventitiously visually impaired children of 13 to 18 years of age, studying in grades VIII to X in the special schools formed the sample. The subjects were matched in relation to the onset of impairment, age, grade and geographical background alongwith socio-economic status. The detailed description has been given in Table 1:

TABLE 1
Institution-wise Distribution of Sample

S. No.	Name of School	Congenitally Visually Impaired Children	Adventitiously Visually Impaired Children
1.	Ahmadi Blind School, Aligarh	07	05
2.	Model School for Blind, NIVH, Dehradun	14	22
3.	Govt. Boys Blind School Delhi	14	10
4.	Rashtriya Virjan Kanya Vidyalaya, New Delhi	15	13
Total		50	50

Tools : The main tool of the study was the Cattell 16 PF Questionnaire. But, for the subsidiary purpose, the following tools were also used :

1. General Information Questionnaire (1993) prepared by the investigator to collect the detailed information of the children. This tool was used to identify onset of causes of visual impairment as well as building a communicable rapport with these children.
2. Socio-Economic Status Scale (SESS) by Dr. S.P. Kulshrestha : It has four dimensions as Social, Educational, Occupational and Income of the sample parents to diagnose their socio – economic status.
3. Sixteen Personality Factor Questionnaire (16 PF) : It is originally developed by Dr. R.B. Cattell (1973) and adopted by S.D. Kapoor in Hindi version. This test is very comprehensive and attempts to probe the personality through 16 factors. The researcher had transcribed the tool in Braille from NIVH, Dehradun.

Procedure : First of all the General Information Questionnaire and Socio-Economic Status Scale were administered to select the sample and match the sample on impairment, age, socio-economic status, family size, class, etc. The selected sample were then administered the transcribed 16 PF Questionnaire in their schools. After the testing was over the adequate scoring was adopted by the investigator for scoring as well as interpretation.

Significant Personality Factor

Table 2 indicates 'CR' value between the CVI and AVI groups which is found significant at 0.05 level. Mean value of AVI is showing upward trends on this personality factor but congenitally visually impaired children have judicious mixture of Reserved Vs. Outgoing characteristics. Adventitiously visually impaired children have reserved trait in their personality make up.

PF- 4, E : Humble Vs. Assertive

A scrutiny of the above table reveals that both groups under consideration differ significantly on this factor and values are found significant at 0.05 level. AVI children exhibit assertive and independent trends in their personality while the congenitally visually impaired children are having mixed personality trends in relation to Humble Vs. Assertive.

TABLE 2
Comparison of Personality Factors between Congenitally Visually Impaired and Adventitiously Visually Impaired Children

<i>S. AVI</i>	<i>Symbols</i>	<i>Personality Factors</i>	<i>CVI VS</i>	<i>Explanations</i>	<i>No.</i>
1.	A	Reserved Vs. Outgoing	**	AVI children are out-going while CVI children are reserved and detached	
2.	B	Less Intelligence Vs. More Intelligence	NS	None of the groups have significant difference	
3.	C	Affected by Feeling Vs. Emotionally Stable	NS	There is no significant differences among the groups	
4.	E	Humble Vs. Assertive	**	AVI children are more assertive and independent	
5.	F	Sober Vs. Happy Go Lucky	NS	There exists no significant difference among the groups	
6.	G	Expedient Vs.	NS	AVI children are outstandingly Conscientious conscientious in comparison to CVI children	
7.	H	Shy Vs. Venturesome	NS	No significant differences among the groups are found on this factor	
8.	I	Tough Minded Vs. Tender Minded	**	CVI groups of children are found extremely superior in relation to tender mindedness	
9.	L	Trusting Vs. Suspicious	NS	There exists no significant difference among the groups	
10.	M	Practical Vs. Imaginative	**	CVI group is highly imaginative	
11.	N	Fortright Vs. Shrewd	NS	None of the groups have significant differences	
12.	O	Placid Vs. Apprehensive	NS	There exists no significant difference but both the groups are inclined towards apprehensiveness	
13.	Q1	Conservative Vs. Experimenting	NS	None of the groups have significant differences and they are marked by the mixed personality configuration	
14.	Q2	Group Dependent Vs. Self Sufficient	NS	No significant differences among the group are found	
15.	Q3	Undisciplined Self Conflict Vs. Controlled	**	AVI children are marked by better emotional control	
16.	Q4	Relaxed Vs. Tense among the Group	NS	There is no significant difference	

CVI = Congenitally visually impaired children

AVI = Adventitiously visually impaired children

PF- 8, I : Tough Minded Vs. Tender Minded

Table 2 reveals that the computed 'CR' value among CVI and AVI is found significant at 0.01 and 0.05 level. Scores in the case of CVI children are found distinctly superior in relation to tender mindedness.

PF-15, Q3 : Undisciplined Self-conflict Vs. Controlled

On this trait CR value is found significant at 0.05 level of significance. Mean scores show that adventitiously visually impaired children are superior on this factor and marked by the factor of better emotionality, while the CVI children are having outwardly trend in their personality make-up.

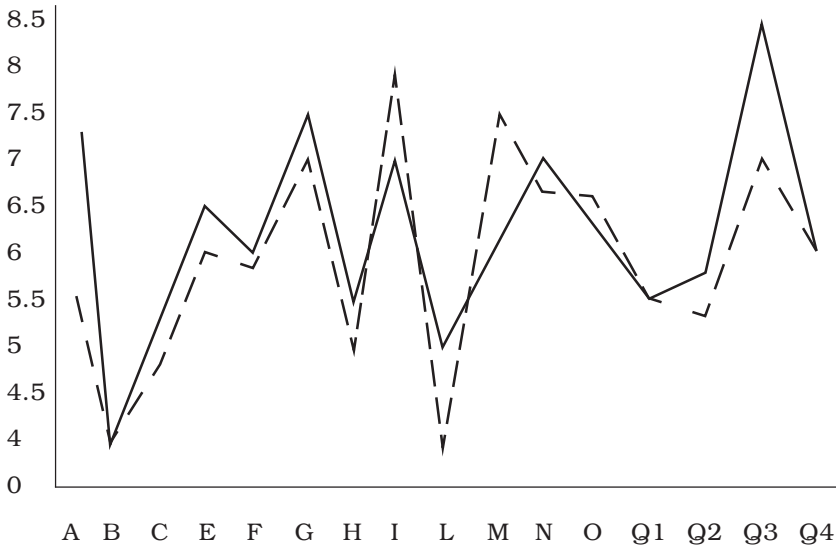
Non Significant Personality Factor

The personality factors No. 2,3,5,7,9,11,12,13,14,16, B, C, F, H, L, N, O, Q1,2,4, have shown no significant difference on the corresponding personality traits. It can be interpreted that there is no significant difference between congenitally and adventitiously visually impaired children in relation to the following personality factors : Less Intelligence Vs. More Intelligence; Affected by Feeling Vs. Emotionally Stable; Sober Vs. Happy Go Lucky; Shy Vs. Venturesome; Trusting Vs. Suspicious; Forthright Vs. Shrewd; Placid Vs. Apprehensive; Conservative Vs. Experimenting; Group Dependent Vs. Self Sufficient; Relaxed Vs. Tense. It can be said that most of the personality factors, (both the groups) are homogeneous in nature. Both groups are having less intelligent, emotionally less stable, conscientious, trust worthiness, imaginative, apprehensiveness quality in their personality makeup.

A Comparative Personality Profile

The personality profile (Fig. 1) has revealed two prominent trends, i.e., the high trend in the group of AVI children of the personality factor- A;E;I; and Q3 while the CVI group spurt on the personality factor S-M and O. Both the groups of visually impaired children are homogeneous in relation to other personality factors-C ; F : H : Q I, Q2 and Q4 respectively.

Fig. 1.1 : Comparative Personality Profile of Congenitally Visually Impaired (CVI) and Adventitiously Visually Impaired (AVI) Children



Thus the intra-group differences represent the group AVI affected by the personality factors Affectothymia; Assertive Attitude; Conscientious; Premsia and better built emotionally; on the other hand the CVI group is marked by the imaginative and apprehensive personality configuration.

The existing commonalities in their personality profile normally developed ego strength, lead a normal life (sober and happy go lucky) without showing timid behaviour. They appeared to be stable without lying on the extreme ends of the personality factors like introversion Vs. extraversion (Q1), low anxiety Vs. high anxiety (Q2); and relaxed Vs. independence (Q4), respectively.

Conclusion

After summarising the results as given in Table 2 and personality profile, it can be inferred that congenitally visually impaired and adventitiously visually impaired children have sharp distinction in relation to the following personality factors :

PF 1– Reserved Vs. Outgoing

PF 4 – Humble Vs. Assertive

PF 8 – Tough minded Vs. Tender minded

PF 10 – Practical Vs. Imaginative

PF 15 – Undisciplined Self Conflict vs. Controlled.

Congenitally visually impaired children are more imaginative and apprehensive. Bhargava and Lavania (1981) also conclude that these children who have disability with birth they are more imaginative. The results of Kapoor and Sen's (1984) study indicate that the congenitally and adventitiously blind group differs significantly from each other on the personality variables and congenitally visually impaired children have apprehensive quality in personality structure. Goel (1985) reported that congenitally blind children were emotionally maladjusted. Adventitiously visually impaired children are outgoing, assertive, conscientious, tender minded, shrewd and better built emotionally (Weiner ; 1991, Minter and Pring ; 1992; Date-Kwan-Janie and Hughes; 1991, Rath, 1988; Goel and Sen, 1985, Kapoor and Sen, 1984). The groups CVI and AVI are having normally developed ego-strength and lead a normal life without showing timid behaviour (Goel and Sen, 1985).

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