ISSN: 2249-2437

Annual Subscription ₹.500/-

# DIMENSIONS OF EDUCATION

A English Quarterly Education and Research Journal

Gadag - Karnataka

- Administrative behavior, job satisfaction and, Role expectation of principals of aided and unaided colleges of education
- Higher secondary students level of chemistry achievement in relation to certain selected variables
- Interaction effect of gender (Boys and Girls) & caste (SC/ST, OBC and GM) on logical thinking operation I.E., problem solving
- Job satisfaction and organizational climate of heads with their morale in first grade degree colleges
- An interaction effect of minimum qualified teachers teaching effectiveness, students personality and attitude towards science on their academic achievement
- Adjustment problems of girls students studying in Morarji Desai residential schools

Volume : 4, Issue : 2, Pages 52, 7th September. 2014

# Dimensions of Education

*A Quarterly Education and Research Journal*

**7th September 2014** **Vol. : 4** **Issue : 2**

*Publisher*
**Jayadev M. Menasagi**
Vidyanidhi Prakashana, Gadag.
Former Syndicate Member Karnataka University, Dharwad

*Editor*
**Dr. N. B. Kongawad**

*Co-Editor*
**Dr. S. B. Yadawad**





# Dimensions of Education

*A Quarterly Education and Research Journal*



**Vidyanidhi Prakashana ®**
**Sri Sivakumar Agency ®**
Station Road, Near Mahendrakar Circle,
GADAG-582 101 Dist. : Gadag
Karnataka State (India) Phone : 08372-237527, 277527
email : dimensionsofedn@gmail.com
www. vidyanidhionline.com





# Dimensions of Education


## INSIDE

## Articles



## Research



## Thinkers on Education

Dimensions of Education



# Conceptualisation of Pedagogical Competency

According to wikipedia pedagogy is the study of being a teacher or the process of teaching, Dictionary of Instructional Technology (1986) compiled by Henry Enligton and Duncan Harries states that the word 'pedagogy' is re-emerging in educational circles as a term of educational science, i.e., the study of classroom methodology and teaching techniques. The encyclopedia of Britanica explain the meaning of pedagogy as The science of teaching involving the study of human learning processes and the application of learning principles to the development of educational goals and curricular and to the teaching situations. It covers various components of teaching and schooling ; major theories of learning. The dictionary meaning of pedagogy is the study of teaching methods pedagogy is an art, practice or profession of teaching; systematised learning or instruction concerning principles and methods of teaching. Competency is the ability to do or take responsibility. Competencies are, in essence, definitions of expected performance that taken as a whole, should provide users with complete picture of the most valuable behaviours, values and taskes required for their organisation's success. The Competency is a statement which describes the integrated demonstration of a cluster of related knowledge skills and attitudes that are observable and measurable, necessary to perform a job independently at a prescribed proficiency level. A competency is an underlying characteristics of a person which enables them to deliver superior performance in a given job or situation.

**- Dr. N. B. Kongawad**
Editor

Dimensions of Education 7th September 2014 Vol. IV Issue. II

# "THE VALUES OF LIFE AND POSITIVE PSYCHOLOGY IN THE VACHANAS OF CHANNABASAVANNA"

✍ **Dr. Sujata S. Baradur,** Dept. of Kannada S.M.B.K. College, Naregal. Gadag.

***"Vachanas are arrows Shot by the divine bow"***

The Vachana Literature is the sublime synthesis, the luminous essence and the very incarnation of the cardinal Principle of oriental aesthetics of Satyam Shivam and Sundaram. This Vachana Literature will make us see and realize God. It will also give us tranguility and true happiness because they purify and sublimate our sense.

Channabasavanna also known as "Guru Channabasavanna" was one of the foremost 'Shivasharanas' of the 12th century. He played a pivotal role in the propagation of Veershaiva faith. He composed many Vachanas under the hom de plume "Kudala Channasangama".

Vachanas of Channabasavanna contain the cream of mystic experience. Mysticism is nothing but a harmonious blend of true knowledge and good action. His speech is a pearl born in the ecstasy of true devotion.

Channabasavanna was by birth an embodiment of knowledge. His perfume has pervaded all his Vachanas. Luminous as he was with the great Psychic Light, treading the path and has become the sovereign monarch of the Sat-Sthala. He may be compared to a Swan, if we imagine the Sat-Sthala as a lake, for he can move freely in that vast expanse of experience, regardless of its depth.

All his Vachanas are the symbols of moral values and instill in us a profound knowledge which make us introspect ourselves they touch our Psyche. Really they provide us positive Psychological insight.

All the Vachanas which are clearly stated with simple words but full of wisdom. They touch the heart of the masses. So we call proudly our Channabasavanna as the incarnation. We find this in the thought provoking Vachanas of Somanath, Bhim Kavi, Lakkanna Dandesh, Chamaras and Singraj.

Akka Nagamma is the divine mother of the great soul Channabasavanna. Shivadeva also called Shiva Swamy is the father the great soul took his birth in the pious place called Kappadi Kshetra (Kudala Sangam Kshetra) anjd the divine Soul become one with or united with God in Ulavi Kshetra in 1168 February.

The Vachanas of Channabasavanna are deeply embedded in mystic experience the Vachanas of this uncrowned emperor of six-fold system of Veerashaaiva Philosophy are heavily loaded and charged with scriptures, learning and philosophy are heavily loaded and charged with Scriptures, learning and Phiolosphy the Vachanasda dazzle with rare brilliance of enlightened knowledge and fill us with a sense of awe and wonder.

The true devotee should have none of these is really very meaningful.

**Shun lust for other's Wivers.**
**Shed anger with Guru**
**Free thyself form greed in body and mind**
**Be not arrogante with the devotees of the lord.**
**Many not any living creature rouse your enry**
**If one relatises these six-fold Virtures.**
**One is a natural and ture devotee**
**O Lord Kudala Channasangayya.**

The Vachanas of Channabasavanna are deeply embedded in mystic experience the Vachanas of this uncrowned emperor of six-fold system of Veerashaaiva Philosophy are heavily loaded and charged with scriptures, learning and philosophy are heavily loaded and charged with Scriptures, learning and Phiolosphy the Vachanasda dazzle with rare brilliance of enlightened knowledge and fill us with a sense of awe and wonder.

He explains Philosophical truths like the following.

"The Ishtalingh is the mirror and the pranaling the reflection.

If the mirror becomes blurred, how can the reflection be seen".

**"Leave and desires**
**Done envy anyone**
**Don't ask / stretch your hand for money.**
**If you do, our lord can't praise you".**

Do not pretend that you are sublime. If the person carries all the desires and Vasanas, the real worship goes in rain.

According to Channabasavannaopne should have Pure constience, honest and self confidence there should not be ay hypocrisy what God needs is Pure mind and Bhakti and certainly not money. He've how one should live is expressed.

In the following Vachana he says about ignorance.

"Act or do your duty and that is knowledge
Don't run after lust - it is knowledge
When we follow it - it is our true action
If we do not follow what we preach, that is ignorance.

- Continued on Page No. 37

ISSN : 2249-2437 ARTICLE

# WHY - METHODS OF TEACHING ?

✍ **Smt. G.B.Devamma** and **Smt. Jyothi.B.Panth,** Assistant Professors, Sree Siddaganga College of Education, Tumkur.

***Ideal teachers are those who use themselves as bridges over which they invite their students to cross, then having facilitated their crossing, joyfully collapse, encouraging them to create bridges of their own.***

**- Nikos Kazantzakis**

An ideal teacher is one who helps the students to develop with their potentialities at their fullest form and assist them to realize their futuristic goals to lead a happy, meaningful and great life. This can be reached by a teacher who is emulous, redundant and possess enduring personality. The teacher with this nature first love their profession and then involve themselves in the task of teaching by helping their pupils to learn the attitude of - thinking, raising questions, analyzing critically and also to be objective and truthfulness in their functioning. Hence I recall here the words of Albert Einstein - "It is the supreme art of the teacher to awaken joy in creative expression and knowledge." Such teachers with their teaching should support the students to unveil their talents and creativity for the benefit of the society. Hence teaching is an complex social phenomenon.

Every teacher dreams to become an effective teacher and a few teachers will strive hard to realize their dream. In this endeavor teacher needs to possess the knowledge of why, what, how, when, where and whom aspect of teaching-learning process. When, where and who aspects of teaching is pre-decided by the institution and reflected in the time-table. But why aspect of teaching has to be decided by each and every teacher. Why aspect is specific to each content/subject matter. It gives the direction for the teacher what to teach(content) and how to teach(method). Yes, it is none other than the "Aims and Objectives" of teaching, without the knowledge of this, teacher can't plan his lesson or execute his plan. Indeed, present knowledge-driven society in which information possess very short shelf life, it is very important for teachers to focus on the goals which has longer shelf life in preparing our students for their life, equipping them with the attitude of constantly upgrading their knowledge and to apply and create knowledge. If this has to be done then imagine the role of a teacher? If he is good enough in her approach of deliberate presentation and interaction with the students then he can foresee the real image of her goals in mind.

It is the duty of each and every teacher to realize these objectives by adopting the suitable method. Hence in this venture the knowledge of method is very much needed for a teacher. In this process of realizing the objectives teacher should select the content matter that is prescribed in the syllabus. Accordingly he has to adopt suitable methodology to make the students to understand the content clearly. Hence how aspect of teaching help the teacher to realize the why aspect of teaching by means of what aspect of teaching.

In the world, we find two types of teachers, one is born teachers and the another is made teachers. Gautama Buddha, Swami Vivekananda, Dr. Radhakrishna are all born teachers who had the inherent flair for teaching. But the later group doesn't possess this inherent flair to teach which is very much required to motivate and attract the learners towards one's teaching. Hence the made teachers are to be trained in such away that it should develop in them the skills and abilities to teach. This speaks of the knowledge of methods of teaching that a teacher has to imbibe to become an effective teacher.

If a teacher doesn't have the idea of methods of teaching then he may go astray while teaching, which causes the wastage of time, energy and money and also it may develop confusions in the minds of the learner and make their learning a complex and difficult one. Hence in order to avoid this teacher should possess the right knowledge of methods of teaching which will help the teacher to be on the right track to realize the set objectives.

More over the content matter of a subject vary in its nature. When such is the case how can a teacher adopt a

- Continued on Page No. 20

# THINK GLOBALLY AND ACT LOCALLY

✍ **Dr. Ashokkumar B. Surapur,** Assistant Professor, Department Of Education, Karnataka State Women's University, Jnanashakti Campus, Torvi ,Bijapur-586101

## INTRODUCTION

When you take a look around, it certainly does seem as if the economy has gone global. Foreign outsourcing, brands from around the world in car dealers' showrooms, the World Wide Web, and even globalization protesters all seem to offer proof that globalism has arrived and borders have vanished. Globalization is pushing brands and business across borders, testing the ability of companies to achieve in foreign markets the same success they've experienced within their home country. While it is easy to believe globalization is making the world a smaller place, it is short sighted to address the global market without maintaining focus on the unique qualities of local markets. The principles of balancing global operations with respect for local culture extend to managing communications, in which cross-cultural understanding can make a significant difference in the effectiveness and success of a global campaign. Cross-cultural communication came into its own in the

The original phrase "Think global, act local" has been attributed to Scots town planner and social activist Patrick Geddes. Although the exact phrase does not appear in Geddes' 1915 book "Cities in Evolution," the idea (as applied to city planning) is clearly evident: " 'Local character' is thus no mere accidental old-world quaintness, as its mimics think and say. It is attained only in course of adequate grasp and treatment of the whole environment, and in active sympathy with the essential and characteristic life of the place concerned."Patrick Geddes, was a Scottish biologist, sociologist, philanthropist and pioneering town planner. He was also responsible for introducing the concept of "region" to architecture and planning. He has made significant contributions to the consideration of the environment. Geddes believed in working with the environment, versus working against it.

## DEFINITION

"Think globally, act locally" urges people to consider the health of the entire planet and to take action in their own communities and cities. Long before governments began enforcing environmental laws, individuals were coming together to protect habitats and the organisms that live within them. These efforts are referred to as grassroots efforts. They occur on a local level and are primarily run by volunteers and helpers. "Think Globally, Act Locally" originally began at the grassroots level; however, it is now a global concept with high importance.

It is not just volunteers who take the environment into consideration. It is corporations, government officials, education system, and local communities. The term was increasingly applied to initiatives in international education and was advanced by Stuart Grauer in his 1989 University of San Diego publication, Think Globally, Act Locally: A Delphi Study of Educational Leadership through the Development of International Resources in the Local Community. In this publication it was ascribed to Harlan Cleveland. It is said that this term was used by German-American sociologist Eugen Rosenstock-Huessy in the 1950s or earlier, prior to the formation of the United Nations Organization. It is not only corporations that are acknowledging the importance of environmental issues, but also the education system. Government officials and school boards across the world are beginning to develop a new way of teaching. Globalization is now thought of as an important concept to understanding the world. Certain schools believe it is important to discuss global issues as young as 5 years old. It is students who are our future, therefore understanding the concept of "think globally, act locally" is fundamental to our future.

## THINK GLOBAL ? ACT LOCAL ?

Global is about the size and strength of a business. Local is about the people the business touches -where they live and work, how they think, what they value, and what moves them to action. Acting local demonstrates a respect for local outlooks, priorities and traditions and an understanding of how to compromise in taking the step from global thinking to local thinking and action. Business can sometimes view the global market in regional pieces: "Asia is our leading growth market," or "We must sustain leadership in Europe." Definitions like these help guide business focus, yet in reality each region comprises locally effective global communications take into consideration how local attitudes and behaviours differ from those of the company's home country and other local markets. Like any communications effort, it is essential to have a clear message and a defined audience - who they are and where they are - and what local factors influence communications. Something as simple as observing local seasonal or

religious holidays when timing the launch of a new product can have a direct impact on the success or failure of the campaign.

## CLOSE THE GLOBAL - LOCAL LOOP

Getting from global message to local meaning sometimes requires stripping it down to the most basic message. The goal is to develop a message that is focused locally yet reflects and supports global communications. Beyond the mere mechanics of communicating around the world, a successful "global launch" incorporates the most effective and appropriate local messages.

## MAXIMIZE LOCAL RESOURCES

Global communications operating from international headquarters can be geographically and culturally distanced from other parts of the world. Involve local resources early when developing communications - before decisions and budgets are final. Be prepared to change thinking and direction based on local input. It might be reviewing copy for language nuances, checking major local holidays or discovering local regulations limit the use of public communications.

## HOW TO THINK GLOBALLY AND ACT LOCALLY

Remember that the first tier of the environmentally sustainable waste management hierarchy is reduction. Shop with the environment in mind. Buy in bulk and look for recyclable containers. Avoid Hazardous products like petroleum based bug or weed killers. Make purchases with the goal to repair and reuse rather than consuming and trashing.

Be sure to close the recycling loop every time the opportunity presents itself. Plastic lumber and building materials, tissues and paper towels, recycled paper and many office products are now available with recycled content. Ask for them if you can't find them.

Don't forget to reduce your organic waste, too! Utilize your communities yard waste collection program. Compost your yard clippings and food waste in your backyard and "grass cycle" or let your lawn clippings lay rather than bagging them.

Extra address labels can be used for labelling CD's, movies, books, videos, or any of your other personal belongings.

Use wire hangers from the dry cleaners to remove static from clothing. This can be done by running the long side over your pants, or other articles of clothing.

Use empty matchbooks to secure threaded needles for a convenient portable sewing kit.

Reuse carrier bags when shopping or as bin bags or trash can liners around the house.

Scrap paper can be used for notes and sketches; reuse as much as possible. Make sure to recycle when finished using it.

Newspaper, cardboard, and bubble wrap make useful packing materials when moving, or to store fragile items.

Use empty food containers (butter, cool whip) for everyday storage purposes.

Avoid buying items in single serve containers. Bulk packaging is much more cost effective.

Reuse fabric softener sheets until there is no longer a scent to them.

## CONCLUSION

In the end, the biggest threat to our environment, our "ecology," is not really pollution or resource depletion. The biggest threats are greed, ignorance, and indifference. One needs to be armed with considerable courage, as well as the facts, to overcome these threats. I hope that these suggestions will help to initiate change within your local environment-a change which will ultimately impact the global environment, our shared world in which we all live, for the better. And considering that the more we look at life on this planet, the closer to its "spirituality" we become, perhaps that's where the courage to take action will come from in the end.

## REFERENCES


- **Barash, David** (2002). Peace and Conflict. Sage Publications. p. 547. ISBN 978-0-7619-2507-1.
- **Stephen, Walter** (2004). Think global, act local : the life and legacy of Patrick Geddes. Edinburgh: Luath Press. ISBN 978-1-84282-079-7.
- **Keyes, Ralph .** The Quote Verifier. Simon & Schuster. New York, NY 2006. ISBN 978-0-312-34004-9.
- **The worlds of Patrick Geddes :** Biologist, town planner, re-educator, peace-warrior. Boardman, Philip. 1978. ISBN 0710085486


■■

# A STUDY OF ADMINISTRATIVE BEHAVIOUR, JOB SATISFACTION AND, ROLE EXPECTATIONS OF PRINCIPALS OF AIDED AND UNAIDED COLLEGES OF EDUCATION IN BELGAUM DISTRICT

✍ **S. B. Dalawai**, Assosiate Professor & HOD Department. of Education, KNVV Sangha's Arts & Commerce College Kittur.

***ABSTRACT***

***ThThe present study was attempted to study the Results of Correlation Coefficient Between Administrative Behaviour, Job Satisfaction And Role Expectations by Teachers, Students and Parents of Principals of Aided and Unaided Colleges of Education of Belgaum district from the total 50 schools 50 Lecturers and 200 Student Teachers were randomly selected for the study. And correlation analysis treatment was given to find out the significance between the two variables. For this purpose 2 objectives were framed according to the objectives hypotheses were tested. The finding of study reveals The role expectation by students increases with increase in administrative behavior of principals of aided colleges of education. The job satisfaction, role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behavior of principals of unaided colleges of education. The role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behavior of principals of unaided colleges of education. The role expectation by students increases with increase in administrative behavior of principals of unaided colleges of education. The role expectation by parents increases with increase in administrative behavior of principals of unaided colleges of education.***

## INTRODUCTION

## ROLE EXPECTATIONS

A role is the pattern of actions expected of a person in activities involving others. Role reflects a person's position in the social system with its accompanying rights and obligations, power and responsibility. In order to be able to interact with each other, people need some way anticipate others' behavior. Role performs this function in the same system.

Teaching is the system of action involving an agent, an end in view and a situation. The persons involving education system expects different roles by teachers. That is the teachers job involves many roles besides the teaching. The teacher will have to serve as a parent as a friend, as a philosopher, as a guide, as a facilitator, as a manager, as a psychotherapist, as an entertainer, as a record keeper and so on.

## JOB SATISFACTION

There are a number of different definitions of job satisfaction. One comprehensive definition is that it is a generalized attitude, resulting from many specific attitudes in three areas;

- Specific job factors
- Individual adjustment and
- Group relationships

Job satisfaction is the favourableness or unfavourableness with which employees view towards their work. It results when there is a congruence between job requirements, wants and expectations of employees. It expresses the extent of match between the employee expectations of the job and the rewards that the job provides.

A dictionary defines the term job satisfaction as "Extent to which a person is pleased or satisfied by the content and environment of his/her work or is displeased or frustrated by inadequate working conditions and tedious job content."

International Dictionary of Education, this implies that the measure of the satisfaction or frustration of an individual towards the environment or the conditions under which he has to work and the type of work he has to do determines job-satisfaction. But this would not give a complete picture of job-satisfaction as such.

Hoppock(1935) views it "as any combination of psychological, physiological and environmental circumstances that causes a person truthfully to say 'I am satisfied with my job.' He states 'job satisfaction depends upon the extend to which the job that we hold meets the needs that we feel it should meet.' The degree of satisfaction

is determined by the ratio between what we have and what we want.

Super (1939) views "Work satisfaction and life satisfaction depends upon the extent to which the individual finds adequate outlets for his ability, interests, personality traits and values. They depend upon his establishment in a type of work, a work situation and a way of life in which he can play the kind of experiences have led him to consider congenial and appropriate."

R.R. Bullock(1952) in his study of social factors related to job satisfaction has defined it "as an attitude which results from a balancing and summation of many specific likes and dislikes experienced in connection with the job, these evaluations may rest largely upon one's own success or failure in the achievement of personal objectives and upon the perceived contribution of the job and company towards these ends."

H.C. Smith(1955) in his study 'psychology of industrial behaviour holds that "job satisfaction is the employee's judgment of how well his job on the whole is satisfying his various needs."

## ADMINISTRATIVE BEHAVIOUR

It is a matter of general agreement that even administrators who command within and in the community at side, will on occasions, resort to external resources to help the school redirecting its functions in desirable ways. However, unless the administrator is directly involved as a central figure in making decisions, diagnosing problems and launching new processes such efforts are at the best doomed to be peripheral, potentially at least, the administrator in such situations is an evitable position to function as a change agent.

By the behaviour at an administrator we refer to anything and everything that a person who holds and administrative post may do both on and off the job behaviour that the socially disapproved just as readily as he can, by poor performance on the job. The school head is particularly vulnerable to this kind of negative evaluation. In fact, it may be difficult at items to draw a clear line between what is properly considered on the job and what is private and off the job failure to this distinction is responsible for someof the confusion with regard to evaluation of school administrators.

## COMPONENTS OF ADMINISTRATOR'S BEHAVIOUR

The administrator's behaviour has four components namely -

- communication
- representation
- organization and
- integration

**i. Communication :** It is the first component of administrator behaviour. It can be from top to the bottom, can be from the bottom to the top or on the horizontal line. Single track communication may be from notices, directive or order. Teachers are at the receiving and the implementation end. There is no consultation or no attempt to feel the pulse on the part of the administrator. Orders are imposed from of communication gives scope for the feedback from the bottom. Staff meetings and groups meetings provides scope for this second type of communication channel that is teacher to teacher communication.

**ii. Representation :** Representation in administration implies participation of subordinates in decision making. Teacher educator participation increases their identification with the administrative policies securing their support to their programe.

**iii. Organization :** It is second component of administrator behaviour. It is the initiating structural behaviour of the administrator. A considerate leader can easily be accessible to this colleagues without any fuss or formality. He is understandable, sympathetic, helpful and accommodating in this relationship with his colleagues irrespective of rank or status.

**iv. Integration :** It is the considerational aspects of the administrator behaviour of the headmasters and also the process of appropriate emotional and social relations among those directly cooperating with the good attainment process and in the system of action viewed as a continuity entity. The administrator is involved in relating and integrating problems of values.

## OBJECTIVES OF THE STUDY

1. To study the relationship between administrative behaviour, job satisfaction and role expectations by teachers, students and parents of principals of aided colleges of education.

2. To study the relationship between administrative behaviour, job satisfaction and role expectations by teachers, students and parents of principals of unaided colleges of education.

## HYPOTHESES OF THE STUDY

1. There is no significant relationship between administrative behaviour, job satisfaction and role expectations by teachers, students and parents of principals of aided colleges of education.

2. There is no significant relationship between administrative behaviour, job satisfaction and role expectations by teachers, students and parents of principals of unaided colleges of education.

## DELIMITATION OF THE STUDY

- The study is limited to the Role Expectation, Job Satisfaction and Administrative behaviour of Principals of B.Ed. Colleges.
- The study is limited to B.Ed. Colleges in Belgaum District.
- For measuring Job Satisfaction of principals duly modified form standardized tools were used.
- For measuring Administrative behaviour of principals Self Rating Scale, Principals' Morale Inventory and Administrative Behavior Description Scale were used.

## DESIGN OF THE STUDY

### Method

The nature of present study is of descriptive survey.

### Sample

Total colleges selected for the study = 20
Total Lecturers selected for the study = 50
Total Student Teachers Selected for the Study = 200

### Tool

1) Role Expectation of the Principal Scale constructed and standardized by the Investigator.
2) Job Satisfaction Scale constructed and standardized by Prof. . Ramatulasamma of Andhra University.
3) Administrative Behaviour Description Scale, developed and standardized by Department of Educational Administration of M.S. University, Baroda.

## DATA COLLECTION PROCEDURE

In the first phase the investigator given the General Data Sheet to the principals of B.Ed. Colleges and collected the general information required from each college.

During second phase the Job Satisfaction Scale was given to all the principals.

During third stage Administrative Behaviour Description Scale was given to principal and teachers whom the principals are having regular contact for administrative matter.

## ANALYSIS OF THE DATA

After data was collected and classified, it was subjected to statistical test of significance correlation coefficient technique was applied.

**Hypothesis - 1 :** There is no significant relationship between administrative behaviour, job satisfaction and role expectations by teachers, students and parents of principals of aided colleges of education.

To achieve this hypothesis, the Karl Pearson's correlation coefficient technique has been applied and the results are presented in the following table.

**Table - 1 : Results of Correlation Coefficient Between Administrative Behaviour, Job Satisfaction And Role Expectations by Teachers,Students and Parents of Principals of Aided Colleges of Education.**

| Variable | Administrative behaviour | Job Satisfaction | Role expectations by Teachers | Role expectations by students | Role expectations by parents |
|---|---|---|---|---|---|
| Administrative behaviour | 1.0000 | | | | |
| Job satisfaction | 0.8716* | 1.0000 | | | |
| Role expectations by teachers | -0.3920 | -0.0558 | 1.0000 | | |
| Role expectations by students | 0.3663 | 0.6784* | 0.5993* | 1.0000 | |
| Role expectations by parents | 0.7751* | 0.6574* | -0.5250 | 0.1871 | 1.0000 |

* Significant at 5% level ($p < 0.05$)

The results of the above table reveal that, the -

- The relationship between administrative behaviour and job satisfaction of principals of aided colleges of education ($r = 0.8716$, $p < 0.05$), administrative behaviour of principals of aided colleges of education and role expectations by parents ($r = 0.7751$, $p < 0.05$) is found to be positive and statistically significant at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the job satisfaction and role expectations by parents increases with increase in administrative behaviour of principals of aided colleges of education.

- The relationship between administrative behaviour of principals of aided colleges of education and role expectations by students ($r = 0.6784$, $p < 0.05$), administrative behaviour of principals of aided colleges of education and role expectations by parents ($r = 0.6574$, $p < 0.05$) is found to be positive and statistically significant at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the role expectations by teachers, role expectations

by students and role expectations by parents increases with increase in administrative behaviour of principals of aided colleges of education.

- The relationship between administrative behaviour of principals of aided colleges of education and role expectations by students ($r = 0.5993$, $p < 0.05$) is found to be positive and statistically significant at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the role expectations by students increases with increase in administrative behaviour of principals of aided colleges of education.

**Hypothesis - 46 :** There is no significant relationship between administrative behaviour, job satisfaction and role expectations by teachers, students and parents of principals of unaided colleges of education.

To achieve this hypothesis, the Karl Pearson's correlation coefficient technique has been applied and the results are presented in the following table.

**Table-2 : Results of correlation coefficient between administrative behaviour, job satisfaction and role expectations by teachers, students and arents of principals of unaided colleges of education**

| Variable | Admini-strative behaviour | Job Satis-faction | Role expectations by Teachers | Role expectations by students | Role expectations by parents |
|---|---|---|---|---|---|
| **Administrative behaviour** | **1.0000** | | | | |
| **Job satisfaction** | **0.8488*** | **1.0000** | | | |
| **Role expectations by teachers** | **0.4635*** | **0.3687*** | **1.0000** | | |
| **Role expectations by students** | **0.4745*** | **0.4636*** | **0.6692*** | **1.0000** | |
| **Role expectations by parents** | **0.3481*** | **0.3363*** | **0.2215** | **0.5078*** | **1.0000** |

* Significant at 5% level ($p < 0.05$)

The results of the above table reveal that, the

1. The relationship between administrative behaviour and job satisfaction of principals of unaided colleges of education ($r = 0.8488$, $p < 0.05$), administrative behaviour of principals of unaided colleges of education and role expectations by teachers ($r = 0.4635$, $p < 0.05$), administrative behaviour of principals of unaided colleges of education and role expectations by students ($r = 0.4745$, $p < 0.05$), administrative behaviour of principals of unaided colleges of education and role expectations by parents ($r = 0.3481$, $p < 0.05$) is found to be positive and statistically significant at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the job satisfaction, role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behaviour of principals of unaided colleges of education.

2. The relationship between administrative behaviour of principals of unaided colleges of education and role expectations by teachers ($r = 0.3687$, $p < 0.05$), administrative behaviour of principals of unaided colleges of education and role expectations by students ($r = 0.4636$, $p < 0.05$), administrative behaviour of principals of unaided colleges of education and role expectations by parents ($r = 0.3363$, $p < 0.05$) is found to be positive and statistically significant at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behaviour of principals of unaided colleges of education.

3. The relationship between administrative behaviour of principals of unaided colleges of education and role expectations by students ($r = 0.6692$, $p < 0.05$) is found to be positive and statistically significant at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the role expectations by students increases with increase in administrative behaviour of principals of unaided colleges of education.

4. The relationship between administrative behaviour of principals of unaided colleges of education and role expectations by parents ($r = 0.5078$, $p < 0.05$) is found to be positive and statistically significant at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the role expectations by parents increases with increase in administrative behaviour of principals of unaided colleges of education.

## FINDINGS

1. The job satisfaction and role expectations by parents increase with increase in administrative behavior of principals of aided colleges of education.
2. The role expectations by teachers, role expectations by students and role expectations by parents

increases with increase in administrative behavior of principals of aided colleges of education.

3. The role expectation by students increases with increase in administrative behavior of principals of aided colleges of education.
4. The job satisfaction, role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behavior of principals of unaided colleges of education.
5. The role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behavior of principals of unaided colleges of education.
6. The role expectation by students increases with increase in administrative behavior of principals of unaided colleges of education.
7. The role expectation by parents increases with increase in administrative behavior of principals of unaided colleges of education.

## CONCLUSIONS

On the basis of the results obtained in the study the following conclusions were drawn; The job satisfaction and role expectations by parents increase with increase in administrative behavior of principals of aided colleges of education. The role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behavior of principals of aided colleges of education. The role expectation by students increases with increase in administrative behavior of principals of aided colleges of education. The job satisfaction, role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behavior of principals of unaided colleges of education. The role expectations by teachers, role expectations by students and role expectations by parents increases with increase in administrative behavior of principals of unaided colleges of education. The role expectation by students increases with increase in administrative behavior of principals of unaided colleges of education. The role expectation by parents increases with increase in administrative behavior of principals of unaided colleges of education.

## REFERENCES


- **Afsarkhan** (1995) Job Satisfaction: Definitions and Theories: Journal of Indian Education, XXI, 1,May, 1995, p. 22-28.
- **Akins and Lasswell** (1954), Behaviour in Organisation-a Multi Dimensional View-Prentice Hall Inc. Englewood Cliffs, New jersey.
- **Boulware W. Jones** (1975) A Descriptive Study of the Relationship Between Teachers' perceptions of Leadership behaviour and Principal's Self Concept and Interpersonal values in the Virgin Islands, Ph.D., Thesis, D.A.I., No. 7. Jan. 1975.
- **Dunbare** (1980), The Relationship Between the Leadership Behaviour of Elementary School Principals and the Morale of Elementary Schools Teachers'
- **Halpin A.W.** (1955), The Leader Behaviour and Leadership Ideology of Educational Administrators and Aircraft Commenders. Harward Educational Review 25, No.1.
- **Thomas, W. Wiggins** (1969), A Comparative Investigation of Principal Behaviour and School Climate. The journal of Educational Research, Vo. 66.

ISSN : 2249-2437 RESEARCH

# SPATIO-TEMPORAL ANALYSIS OF SEX RATIO
## A case study of Haveri district, Karnataka

✍ **Miss Shobha S. Nandhihalli,** Research Scholar K.U Dharwad.
✍ **Dr. S. M. Hurakadli,** Chairman Dept of Geography, Rani Channamma University, Belgaum

***ABSTRACT***

***The structure and composition of sex is an important aspect of population, which is of manifold significance. Among the various elements of population sex composition, age composition and economic composition holds a primary place for Population Geographer. The distribution of population by sex ratio is an important demographic characteristics and one of the easiest aspect to obtain. The separate data for male and female are important for various types of planning and for the analysis of other demographic characteristics, such as natality, mortality, migration, marital status, economic characteristics etc. The balance between the two sexes affects the social and economic relationships within a community. Since the two sexes play partly contrasting and partly complimentary rates in the economy and society. The study of sex composition assumes added significance for population geographer.***

## INTRODUCTION

The Sex composition is an important structural aspect of population, which is of manifold significance. Among the various elements of population composition, sex, age and economic composition hold a primary place for population geographer. The distribution of population by sex is an important demographic characteristic and one of the easiest aspects to obtain. The separate data for male and female are important for various types of planning and for the analysis of other demographic characteristics, such as natality, mortality, migration, marital status, economic characteristics etc. The balance between the two sexes affects the social and economic relationships within a community. Since the two sexes play partly contrasting and partly complimentary rates in the economy and society, the study of sex composition assumes added significance for population geographer.

## OBJECTIVES

The objectives of the present study are to know the variation of sex composition and to study the Spatio-Temporal analysis of the sex ratio of the Haveri district for the year 1981-2011

## METHODOLOGY

In the present study an attempt has been made to study the Spatio- Temporal of sex composition in Haveri district. The present study is based on secondary source of data. The required data for the year 1981 to 2011 has been obtained from the district statistical office Haveri. To know the Spatio- Temporal of the sex ratio of the district, talukas has been taken as a unit of study. The data are suitably processed and classified and tabulated in the form of tables and maps with the help of cartographic techniques.

## STUDY AREA

The Haveri district was the a part of Dharwad district and named as Haveri taluka covering a small area and population earlier. After the bifurcation of new districts in Karnataka State. Haveri taluka is designated as Haveri district, Covers an area about is 4823 km. and consists of seven talukas namely Byadgi Ranebennur, Haveri, Hirekerur, Savanur, Shiggaon and Hangal. The total population of the district was about 1598506 persons, out of which 819295 males and 779211 female population.

The Haveri district was newly formed in the year 1997 by dividing the earlier Dharwad district into Dharwad, Haveri and Gadag districts. The Haveri district is located between north latitudes 140-28' to 140-39' and 750-07' to 750-38' East longitudes.

## SEX RATIO IN HAVERI DISTRICT

In general sex ratio in any region is mainly determined by three basic factors, viz. 1) sex ratio of birth rate 2) sex ratio of death rate 3) sex selectivity among migrants. Apart from these factors, natural calamities like war, famine, epidemics etc. and socio-economic conditions such as status of women, race, standard of living, diet, religion, and others factors also govern the sex ratio.

Haveri district has represented a favorable sex ratio from 1981 to 2011, by displaying 929, 937, 944, and 951females for every thousand males in 1981, 1991, 2001, and 2011 respectively. The district sex ratio has shown fluctuations from decade to decade i.e. from 1981 to 2011. (Table No.1)

During 1981, 1991 there were only 921and 937 females for every thousand males in Haveri district respectively, which has shown considerable, increase of females in district in its population. The paucity of female

in the district has also been attributed to the practice of female infanticide and sati(a social system in which wife commits suicide after the death of her husband) in past and recurrence of epidemics, which used to take a heavy toll of female population. This legacy of the past is still having its impact on the balance of the two sexes in population of the Haveri district. According to 2001 census though the number of female births take place for every thousand male births was only 944 but it has shown a slight increase in number of female's birth. But the recent census 2011 has revealed a further increased in the district sex ratio. It is increased from 944 in 2001 and 951 in 2011 females per thousand male's population in the district.

As far as taluka wise variation in sex ratio in concerned, in the year 1981 the highest sex ratio was observed in the talukas of Byadagi(948) and Haveri (943) this highest ratio was recorded because of the decline in female mortality or male selective out migration, whereas medium sex ratio was found namely Hanagal (941) Hirekerur (937) Rannebennur (935) and Savanur (937). The lowest sex ratio was confined to, only Shiggaon (867) and this low sex ratio in this taluka is mainly because of migration of male population to these talukas, as a result of which the female population has decreased. (Table No.2 and Fig.No.2).

During the year 2011 the district sex ratio was varied from 929 to 951 females per 1000 male population. The highest sex ratio was recorded in Byadagi (956) and Hanagal (956), and medium sex ratio was observed mainly in Haveri (950), Hirekerur (955) and Rannebennur (952) talukas. The lowest sex ratio during 2011 was confined to the remaining talukas viz.Savanur (945) and Shiggaon (943), talukas. This low sex ratio in these talukas is mainly due to out migration of the male working population from dry farming areas to wet farming areas. (Table No.2 and Fig.No.2)

## RURAL - URBAN SEX RATIO

The sex composition of rural population is typically different from that of urban. The basic determinants of sex differentials are birth and death rates as well as the migration. Since the male dominate among the rural-urban migrants in the Haveri district, the sex ratio in urban areas suffers from paucity of females, such a male selective rural-urban migration is facilitated by the prevalence of joint family system where by the male migrant is assured of the safety and security of his family members left behind. The rural-urban differences in sex ratio are of some importance as they reflect the nature of sex selectivity.

In view of these evidences it is found true in the present study where one can observe difference in male and female ratio in rural and urban areas. Haveri district as a whole sex ratio varies from rural areas to urban areas and from one decade to other, as well as from one taluka to other taluka.

During the year 1981 the rural sex ratio was observed 931 female per 1000 males, whereas in 2011 it is increased to 946. The taluka wise rural sex ratio during the year 1981 varied between 928 and 948. Among all the talukas the highest sex ratio was observed Byadagi (941) and Haveri (948) taluka and lowest rural sex ratio was recorded Hanagal (928). During the year 2011 the rural sex ratio varied between 939 and 954.Hanagal (954) and Hirekerur (953) taluka has shown the highest sex ratio. and the lowest was recorded at Haveri (939) . (Table No.3 and Fig. No.3)

The sex ratio in urban areas of Haveri district in the year 1981 was 933 and it is increased to 969 during 2011. This is mainly due to the increased knowledge and awareness among the urbanites of Haveri district. The urban sex ratio during the year 1981 was varied between 923 and 955 and the highest sex ratio was recorded at Hanagal (955) and the lowest was observed in Hirekerur (907) , whereas during the year 2011 the urban sex ratio in the district was varied between 950 and 985. Haveri (985) and Shiggaon (950) taluka have shown the highest and lowest urban sex ratio respectively. (Table No.3 and Fig. No.3)

**TABLE. NO: 1 - HAVERI DISTRICT DECADAL SEX-RATIO (1981 to 2011)**

| Year | Population | | | Year |
|---|---|---|---|---|
| | Male | Female | Total | |
| 1981 | 548600 | 509400 | 105800 | 929 |
| 1991 | 655400 | 613800 | 1269200 | 937 |
| 2001 | 740469 | 698647 | 1439116 | 944 |
| 2011 | 819295 | 779211 | 1598506 | 951 |

Source: Derived from census reports.

**TABLE No. 2 - HAVERI DISTRIC TALUKA WISE SEX RATIO AND DECADAL VARIATION (1981-2011)**

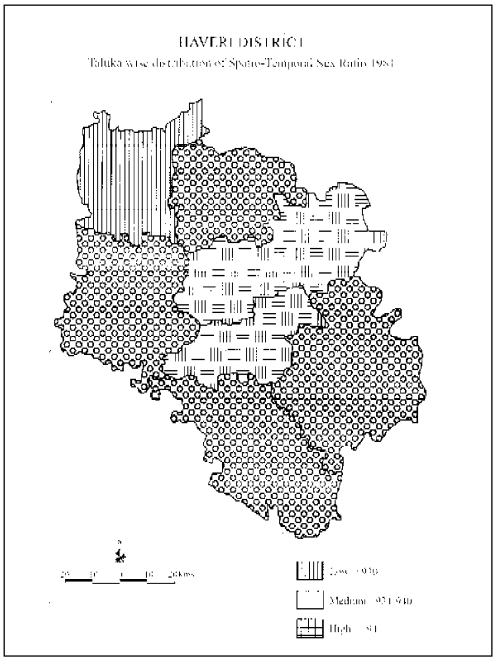
| Sl. No. | Population | | | | | Decadal Variation |
|---|---|---|---|---|---|---|
| | Talukas | 1981 | 1991 | 2001 | 2011 | 1981-2001 |
| 1. | Bydagi | 948 | 939 | 945 | 956 | +08 |
| 2. | Hanagal | 931 | 941 | 953 | 956 | +25 |
| 3. | Haveri | 943 | 939 | 938 | 950 | +07 |
| 4. | Hirekerur | 937 | 936 | 952 | 955 | +18 |
| 5. | Ranebennur | 935 | 930 | 942 | 952 | +17 |
| 6. | Savanur | 937 | 936 | 935 | 945 | +08 |
| 7. | Shiggaov | 867 | 936 | 936 | 943 | +76 |
| **8.** | **Total** | **929** | **937** | **944** | **951** | **+22** |

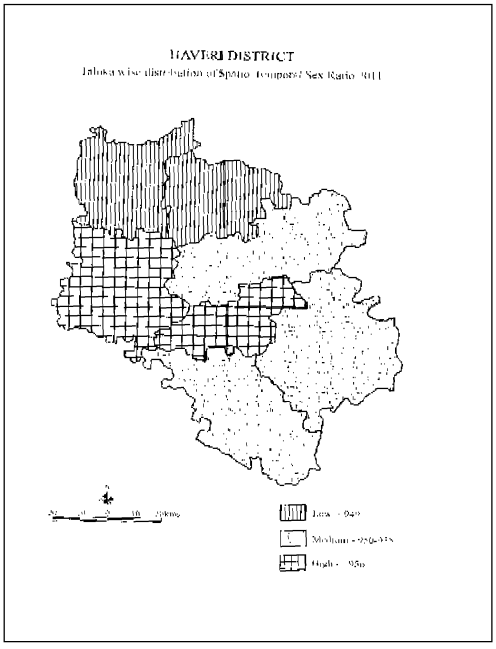
Source: Derived from census reports.

**TABLE No. 3 - HAVERI DISTRICT TALUKA WISE RURAL- URBAN SEX RATIO (1981 -2011)**

| Sl. No. | Talukas | Male | | | Male | | | Decadal Variation 1981-2011 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban |
| 1. | Bydagi | 942 | 941 | 946 | 956 | 949 | 983 | +14 | +08 | +37 |
| 2. | Hanagal | 931 | 928 | 955 | 956 | 954 | 974 | +25 | +26 | +19 |
| 3. | Haveri | 943 | 948 | 926 | 950 | 939 | 985 | +07 | -09 | +59 |
| 4. | Hirekerur | 941 | 939 | 907 | 955 | 953 | 969 | +14 | +14 | +62 |
| 5. | Ranebennr | 935 | 936 | 934 | 952 | 942 | 969 | +17 | +06 | +35 |
| 6. | Savanur | 937 | 937 | 938 | 945 | 941 | 956 | +08 | +04 | +18 |
| 7. | Shiggaov | 867 | 938 | 923 | 943 | 940 | 950 | +76 | +02 | +27 |
| 8. | Total | 932 | 931 | 933 | 951 | 946 | 969 | +19 | +15 | +36 |

Source: Derived from census reports.




## CONCLUSION

In view of partly contrasting and partly complementary roles of the two sexes in the economy and society the study of sex ratio is of great interest to population geographers. Sex ratio is an index of the socio-economic conditions prevailing in an area and is a useful tool for regional analysis. The present study reveals the imbalance between two sexes in the district during the study period i.e. 1981 and 2011, The present study reveals that, the sex ratio is increased from 1981 to 2011. The Byadagi (956) and Hanagal (950) taluks have shown the highest sex ratio.,and lowest was observed in Shiggaon (943) during the year 2011. During this span of four decades,almost all the talukas have shown increase in the sex ratio. This is mainly because of increase in female literacy rate, increase in the status of women in the society, eradication of prostitution, eradication of early marriages in the rural areas, and other. This changing trend in the sex ratio in the district may bring the balance between two sexes, which in future may decrease the socio-economic and demographic problems like early marriage, prostitution, burden of work force and other.

## REFERENCES


- **H.R. Jones -** "A Population Geography New York", Harper and Row
- **H.R. Jones-** "A Population Geography New London", Harper and Row
- **J. I. Clarke :** "Population Geography Oxford", Harper and Row
- **Dr. R. C. Chandana :** "A Geography of Population", Kalyani Publisher, New Delhi.
- **G. T. Trewartha :** "A Geography of Population- World Pattern New York"


■■

# A STUDY ON HIGHER SECONDARY STUDENTS LEVEL OF CHEMISTRY ACHIEVEMENT IN RELATION TO CERTAIN SELECTED VARIABLES

✍ **Mr. C. Shankar,** (Assistant Professor, K.R.P.College of Education, Sankari west-637303, Namakkal District, Tamilnadu)
✍ **Dr. (Mrs). S.S.Jayanthidevi,** (Associate Professor, K.R.P.College of Education, Sankari west-637303, Namakkal District, Tamilnadu)

***ABSTRACT***

***A poor performer and a poor achiever will contribute less to the society than a good performer. Various factors which influence the achievement through previous researches conducted in India and abroad were identified and more studies were conducted in specific area to get appropriate strategies (Shankar and Thilagavathy 2012). Today chemistry students achievement were not up to the expected level because learning could be affected and influenced by various factors like primary and secondary independent demographic variables. So a study was intended to know about the achievement in chemistry of higher secondary school students in relation to educational aspiration, emotional intelligence, mental health and scientific aptitude. A Normative survey research methodology was adopted to a sample of 800 +1 chemistry students which constitutes 39.54 (800/2023) percentage of sample from the global population of 40 higher secondary schools selected in Namakkal district based on stratified sampling technique. From the 800 students, 41.62 % (333) were found as low achievers (14.55). 47.51% (380) were average achievers (25.98) and 10.87 % (87) were higher achievers (38.74) in chemistry. The overall chemistry achievement was found to be average achievers. The average achievers of first year higher secondary school students have average educational aspiration, normal emotional intelligence , poor mental health and below average scientific aptitude. There exists positive significant relationship between low achievers, high achievers and total Chemistry Achievement with respect to Educational Aspiration. There exists positive significant relationship between Chemistry Achievement with Educational Aspiration; and no significant relationship between Chemistry Achievement with Emotional Intelligence, Mental Health and Scientific Aptitude of first year higher secondary students. This study shows that there is a need for guidance and counselling among students to excel in their achievement.***

## INTRODUCTION

One of the serious problems faced by educationists in India is the high percentage of failure in the school and college examinations (Chopra, 1966). Now India is called as young India because it has lots of youth resources (60 %) in which proper utilization of human resources leads to the development of nation. The Kothari commission (1964-66) clearly stated about compulsory teaching of chemistry, physics, biology and earth sciences for the promotion of scientific outlook among the students. Chemistry is a branch of science which deals about understanding of the matter which makes up our world. It touches every phase of human activity. The modern world requires reflective thinking and scientific training. Good programs of chemistry education shall aim at imparting a sufficient quantum of scientific knowledge in various fields to all and ultimately develop a scientific out look in them. Identifying the factors which facilitate high level of academic performance may provide better and more conducive educational environment to the students. This should be done from the school level onwards when they are learning Science. Studying chemistry in first year higher secondary education plays an important role as it is the basis for further study in future.

## EMERGENCE OF THE PROBLEM - NEED FOR THE STUDY

1. The incidence of large failures in chemistry in higher secondary school examination and in the chemistry paper of first year engineering graduates at University Examinations is of great concern not only to the parents but also to the educators.
2. The Need of Educational Aspiration for higher secondary students is vital in selecting carrier of correct choice. Students with appropriate educational aspiration alone choose future course of study correctly.
3. The emotional intelligence and emotional skills are important to students achievement, career success, personal well being and leadership in order to improve their achievement and academic success.
4. Chemistry achievement of a child largely depends upon his scientific aptitude. By knowing the scientific aptitude of the child, he can be guided to adopt a profession related to the field of chemistry.

5. The increasing incidence of depression and other mental health issues among youth, adolescents which leads to social deviants and terrorism. The rise in mental health issues in adolescents is a growing concern in the school and for the community counsellors, and educators also.

Statement of the problem.

"A study on Achievement in chemistry of Higher secondary first year students in relation to Educational Aspiration, Emotional Intelligence, Scientific Aptitude and Mental Health".

## KEY TERMS

Achievement in chemistry, Educational Aspiration(EA), Emotional Intelligence(EI), Mental Health(MH), Scientific Aptitude(SA), and Higher secondary School students.

## VARIABLES

Achievement in chemistry is considered as the main dependent variable. EA, EI, MH and SA are selected as independent variables.

## OBJECTIVES OF THE STUDY

1. To find out the low, average & high levels of achievement in chemistry of first year higher secondary students with respect to selected variables.
2. To find out the significant difference in the low, average and high levels of achievement in chemistry of first year higher secondary students with respect to selected sub variables.
3. To find out significant correlation between levels of achievements in chemistry of first year higher secondary students with respect to selected variables.

## HYPOTHESES OF THE STUDY

1. There is no significant difference in the low, average and high levels of Achievement in Chemistry of first year higher secondary students with respect to selected variables.
2. There is no significant relationship between levels of achievements in chemistry of first year higher secondary students with respect to selected variables.

## METHOD OF THE STUDY

Normative survey research method has been employed.

## POPULATION

The global population for the present study is first year higher secondary school students in selected 40 schools in Namakkal District, Tamilnadu, India. The students who are studying chemistry as one of the subject in their higher secondary level constitutes the global population.

## SAMPLE AND SAMPLING TECHNIQUE

From the global population, the investigator selected 800 higher secondary students as the sample for the final study. This will constitute 39.54 (800/2023) percentage of sample from the global population. For the present study, the investigator adopted simple random sampling technique from the selection of schools and samples were selected by using stratified random sampling technique.

## TOOLS USED FOR THE STUDY

The following tools were employed for the present study. 1. CAQ- Chemistry Achievement Questionnaire (2011) developed and standardized by the investigator; 2. EAS - Educational Aspiration scale constructed and standardized by Dr. S.K. Saxena (1984); 3. EIS-Emotional Intelligence Scale developed by Anukool Hyde and Sanjyot Pethe (2001); 4. MHB- Mental Health Battery was developed and validated by Arun Kumar Singh and Alpana Sen Gupta (1971), and 5. SATB - Scientific aptitude Test Battery was devised by K.K Agarwal (1970).

## DESCRIPTION OF THE TOOL - CHEMISTRY ACHIEVEMENT QUESTIONNAIRE (CAQ)

CAQ was developed and standardized by the investigator. It consisted of 50 multiple choice questions each with four options. The reliability of the tool based on test - retest method was found to be 0.85 and face & Content validity was ensured by arriving juries' opinion from the subject experts. The maximum score for the tool is fifty.

## STATISTICAL ANALYSIS

Descriptive analysis like percentage, mean, differential analysis like t -Test and Correlation analysis like Co-efficient of Correlation (r) were computed for statistical analysis.

## DESCRIPTIVE ANALYSIS

1. Analysis of Low, average and high levels of chemistry achievement of first year higher secondary students with respect to selected variables.

**Table-1: Shows the level of Chemistry Achievement mean values with selected variables**

| Achievement in Chemistry | | | | | EA | EI | MH | SA |
|---|---|---|---|---|---|---|---|---|
| Level | N | % | Score Range | Mean | | | | |
| Low | 333 | 41.62 | 6-19 | 14.55 | 25.70 | 56.84 | 48.49 | 56.36 |
| Average | 380 | 47.51 | 20-34 | 25.98 | 43.37 | 67.26 | 64.96 | 85.56 |
| High | 087 | 10.87 | 35-48 | 38.74 | 59.56 | 81.59 | 82.80 | 122.10 |
| Total | 800 | 100.00 | 6-48 | 22.61 | 37.78 | 64.48 | 60.04 | 77.38 |

From the above table.1, it is evident that from the 800 students, the overall chemistry achievement of the student is found to be as average. The average achievers of chemistry students have average educational aspiration, normal emotional intelligence, poor mental health and below average in their scientific aptitude. 41.62 % (333) of students are found as low achievers (14.55) in chemistry. Low achievers are having average educational aspiration (25.70), normal emotional intelligence (56.84), poor mental health (48.49) and below average scientific aptitude (56.36). 47.51% (380) of students are found as average achievers (25.98). Average achievers are having average educational aspiration (43.37), normal emotional intelligence (67.26), poor mental health (64.96) and average scientific aptitude (85.56). 10.87 % (87) of students are found as higher achievers in chemistry (38.74). High achievers are having high educational aspiration (59.56), normal emotional intelligence (81 .59), average scientific aptitude (122.10) and very poor mental health (82.80).

## DIFFERENTIAL ANALYSIS

2. Analysis of significant difference in the low, average and high levels of first year higher secondary students Chemistry Achievement with respect to selected variables.

**Table - 2 : Shows the t-values of low, average and high level of First year Chemistry Achievers with respect to selected variables.**

| Variables | Low / Average Achievers | Low / HighAchievers | Average / High Achievers |
|---|---|---|---|
| EA | 1.59* | 1.865* | 2.800** |
| EI | 1.15* | 1.8* | 2.1** |
| MH | 5.3*** | 6.6*** | 2.09** |
| SA | 4.1*** | 6.16*** | 3.2*** |

***** Significant at 0.01 level (Table value - 2.58), ** Significant at 0.05 level (Table value - 1.96), and * Not significant**

It is evident from the table.2, that Low achievers and average achievers differ significantly in their mental health; Average achievers and high achievers differ significantly in their educational aspiration, emotional intelligence, mental health, and scientific aptitude; Low achievers and high achievers differ significantly in their mental health and scientific aptitude.

## CORRELATIONAL ANALYSIS

3. Analysis of significant relationship between levels of chemistry achievements of first year of higher secondary Chemistry students with respect to selected variables.

From the above table.6, it is evident that there is positive significant relationship between low achievers, high achievers and total Chemistry Achievement with respect to Educational Aspiration.

**Table - 3 : Shows Correlation Values of First year Chemistry Achievement with respect to selected variables.**

| Level of Achievement in Chemistry | EA | ES | SA | MH |
|---|---|---|---|---|
| Low | .152(**) | .019 | -.011 | -.019 |
| Average | .099 | -.039 | .055 | -.008 |
| High | .446(**) | -.174 | -.107 | .011 |
| Total | 0.287** | 0.001 | 0.042 | 0.010 |

**Tabulated value 0.062(0.05 level), 0.081(0.01 level), 0.052(0.1level)**

## RECOMMENDATIONS

Assessment of students' performance through comprehensive continuous evaluation (CCE) should be followed. In this competitive world, Parents kindly accept their wards ability, promote their excellence friendly. Teacher ensures the safe atmosphere to the students. Both Ministry of education and Curriculum designers should make policy level decisions and students' friendly curricula by including students' representatives. Teacher must evaluate the Educational aspiration of the school students' frequently. So, proper career guidance and counselling should be given to the students having low aspiration. The parents must modify their unrealistic educational aspirations among their children, especially those who strive to provide income support for the family. Evaluations in achievement not only carry with cognitive abilities but also with emotional skills and practical skills. School management appoints emotionally matured teachers. Government must give in-service Training to teachers to develop their emotional skills. School must conduct many community programmes for families with young children such as family reading programmes in Literary, health screening clinics, organized recreation and television programmes that teach socio - emotional values. So, Government introduces life skill education at all levels of education. Life skills education is model of health promotion that seeks to teach adolescents to deal effectively with the demands and challenges of everyday life. The school must provide positive psycho - social environment such as friendly, rewarding and supportive atmosphere, supporting cooperation and active learning and forbidding physical punishment and violence. Inclusion of laboratory assessment with theory starting from primary level promotes scientific aptitude among the students. Use of library, organising science club activities, exhibition, science fair, science corner and field work enhances students' scientific aptitude.

## CONCLUSION

It was concluded that chemistry students have average achievement. The average achievers of first year chemistry students have average educational aspiration, normal emotional intelligence, poor mental health and below average in their scientific aptitude. The condition poor mental health and below average scientific aptitude shows that there is a need for the guidance and counselling among the firs year school going students in selected 40 schools in Namakkal District, India. Being a developing country, India should use its resources to the fullest extent without wastage. Hence it becomes the responsibility of everyone concerned with education to prevent failure, wastage and ensure proper achievement on the part of the students.

## REFERENCES


- **Chopra S. L.**(1966). Socio-Economic background and Failure in the High School Examination. Educational and psychology measurement, 26, 2(19660, 495-497.
- **Darsana M.** (2007). Relationship between EI and certain Achievement facilitating variables of higher secondary school students. Journal of Edutracks. Vol.7.No.4, Pg.No.25-28.
- **Garrett H.E.** (1981). Statistics in psychology and education. Bombay: Vakil, Feffer and Simons Pvt. Ltd.
- **Kothari S. S.**(1964-1966). The Report of the Indian Education Commission 1964-1966. New Delhi: Government of India Press, 1966.
- **Padmanaban K.** (2007). A study on the achievement in Science of Higher secondary students as related to their scientific aptitude, M.Phil, thesis, Department of Education, Madurai Kamarajar University.
- **Shankar C. and Thilagavathy T.** (2012). Factors Affecting Students learning and Achievement in Higher Secondary Education. Dimensions of Education Journal. ISSN: 2249-2437, volume: 2, Issue: 3, pp13-15.
- **UNESCO.** (1993). New Trends in Chemistry teaching. New Delhi: Sterling Publishers Pvt. Ltd.
- **World Health Organization** (2004). Promoting mental health: Concepts, emerging, practice Geneva: Department of Mental Health and Substance Abuse, from www.aihi.unimelb.edu.au/pdf/publications/promotingMentalHealth.


■■

- From Continued on Page No. 6

single teaching method to teach all the content in that subject matter. The nature of content demands the use of different methods of teaching . Hence teacher should be in a position to select the appropriate method of teaching the content matter according to their nature so that they can obtain best results.

Even in a class room, we will be confronted with students of different nature. Even though they are of same age their interest, their abilities, their span of attention, motivation level, their perspectives vary. Hence teacher should have sound knowledge of psychology of learner to understand their nature in order to adopt appropriate method of teaching, so that it will suit the learners nature to flourish learning in them. In this context we can say that no method is considered as the best method of teaching. Because the nature of the content as well as the nature of the learners vary. Therefore teacher should have the vast knowledge of methods of teaching for selecting appropriate one which will suit the nature of content as well as students/learners.

Method is what the teacher is going to adopt a particular procedure or process which helps him to associate the vast knowledge into the minds of the learner ie., teacher bring the great world outside into the minds within by adapting suitable method.

According to F. Remant - "Method is an orderly arrangement of material of instructions so as to cause the material, its best effect on the minds of learner."

At the end, I would like to conclude that a teacher should be very skilled, very knowledgeable and exquisitely well trained in utilizing different methods of teaching appropriate to the realization of aims and objectives, nature of content, nature of learners, availability of resources and ones comfortableness in using it. If a teacher is good at this then he can expect fruitful results, for which the whole educational process is designed. Hence we can conclude that the best building, richest curriculum, upto date library, fine equipments will be of no use without a well qualified teacher who is capable of adopting suitable method of teaching. It is infact not a well planned syllabus but method of teaching which makes learning impressive and effective.

■■

# TO STUDY THE INTERACTION EFFECT OF GENDER (BOYS AND GIRLS) & CASTE (SC/ ST, OBC AND GM) ON LOGICAL THINKING OPERATION I.E., PROBLEM SOLVING

✍ **Smt. Parvati Bavoor,** Lecturer, Sri Basaveshwar Rural Education and Development Trust. (R.) Sattur, Dharwad
✍ **Dr. S.B. Yadawad,** Principal, Rural B.Ed., College, Sattur, Dharwad.

***ABSTRACT***

***The The purpose was to study the selected logical thinking operations in mathematics, viz. observation, coding, inference, application and problem solving and their relationship with total achievement in mathematics of IX standard students. The survey analytical descriptive methods of research were used for the study. For the present study, the population consisted of 400 IX standard students of Kalaghatagi taluka caste wise SC/ST = 50, OBC = 150, GM = 200 and gender wise Boys = 200, Girls = 200 were selected. The study involved independent, dependent and intervening variables. The independent variables were observation, coding, inference, application and problem solving. The dependent variable was achievement in mathematics. The intervening variables were sex, caste of the students and attitude of students towards mathematics.***

***The boys and girls students of 9th standard have different logical thinking operation in mathematics i.e. problem solving; The students of 9th standard with low and high attitude have different logical thinking operation in mathematics i.e. problem solving; The boy and girl students of 9th standard with low and high attitude have different logical thinking operation in mathematics i.e. problem solving. The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the boy students of high attitude; The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the girl students of high attitude.***

## INTRODUCTION

The study of Mathematics helps us in the development of thinking operation like observation, coding, interpretation, inferences, analysis, synthesis, generalization, originality, discovery, application, problem solving, comparing, clarifying etc.,

Some of the thinking operations identified here, are as follows;

## PROBLEM SOLVING

In the operating problem solving, students are given practice in collecting and organizing data. It involves, the activities like sensing the problem, analyzing the situation, organizing information, framing solutions, elimination and verification. (Louis, E. Raths, 1967).

Some problems require application of principles. Sometimes the solution itself is presented and there is an attempt to see how it was arrived at.

For example, the sum and difference of two numbers are 20 and 15 respectively. Find the numbers. The problem will motivate the students to review the solution of simultaneous equation in two variables.

The thinking Operations, especially the solving of an original problem in mathematics, results in the enjoyment of the child. The feeling of mastery, the feeling of self confidence that one enjoys after the discovery of the solution of a different problem is both moral and an intellectual quality extremely desirable from the point of view of training the pupils to think. It is an incentive to further thinking. If we shut out from mathematics we prevent them from exercising their native impulse to think and enjoy successful thinking.

It will result in mental apathy. It will encourage pupils to depend more upon authority, and tradition than on their own thinking.

To study the thinking operations of the student the investigator selected the following operations namely, observation, coding, interference, application and problem solving.

## SOME PROBLEMS IN SCHOOL MATHEMATICS EDUCATION

- A majority of children have a sense of fear and failure regarding Mathematics. Hence, they give up early on, and drop out of serious mathematical learning.
- The curriculum is disappointing not only to this non-participating majority, but also to the talented minority by offering them no challenges.

- Problems, exercises and methods of evaluation are mechanical and repetitive, with too much emphasis on computation. Areas of Mathematics such as spatial thinking are not developed enough in the curriculum.

Teachers lack confidence, preparation and support.

## WHY IS LOGICAL THINKING ESSENTIAL ?

Aside from food, water, and shelter, the one thing that a person will most need in life is an education. Of those four necessities, education is the only one of that can help ensure a person's consistent ability to provide him or herself with the other three. Unfortunately, the importance of logical thinking skills is underestimated in education, and training in logical thinking skills is therefore grossly neglected.

Logical thinking is the process in which one uses reasoning consistently to come to a conclusion. Problems or situations that involve logical thinking call for structure, for relationships between facts, and for chains of reasoning that "make sense."

In his book Brain Building, Dr Karl Albrecht says that the basis of all logical thinking is sequential thought. This process involves taking the important ideas, facts, and conclusions involved in a problem and arranging them in a chain-like progression that takes on a meaning in and of it to think logically is to think in steps.

Logical thinking skills give learners the ability to understand what they have read or been shown, and also to build upon that knowledge without incremental guidance. Logical thinking teaches students that knowledge is fluid and builds upon itself.

Logical thinking is also an important foundational skill of math. "Learning mathematics is a highly sequential process," says Dr Albrecht. "If you don't grasp a certain concept, fact, or procedure, you can never hope to grasp others that come later, which depend upon it. For example, to understand fractions you must first understand division. To understand simple equations in algebra requires that you understand fractions. Solving 'word problems' depends on knowing how to set up and manipulate equations, and so on."

Training in logical thinking encourages learners to think for themselves, to question hypotheses, to develop alternative hypotheses, and to test those hypotheses against known facts.

It has been proven that specific training in logical thinking processes can make people "smarter." Logical thinking allows a child to reject quick answers, such as "I don't know," or "this is too difficult," by empowering them to delve deeper into their thinking processes and understand better the methods used to arrive at a solution and even the solution itself.

At Edublox we understand the importance of training learners to think logically. Our program contains several exercises to teach logical thinking. The exercises have been carefully graded and gradually become more and more challenging.

## OBJECTIVES OF THE STUDY

For the present study the following objectives were framed

i. To study the Interaction effect of gender (boys and girls) on logical thinking operation in mathematics i.e., problem solving

ii. To study the Interaction effect of caste (SC/ST, OBC and GM) on logical thinking operation in mathematics i.e., problem solving.

## HYPOTHESES

H01 There is no Interaction effect of gender (boys and girls) on logical thinking operation in mathematics i.e., problem solving

H02 There is no Interaction effect of caste (SC/ST, OBC and GM on logical thinking operation in mathematics i.e., problem solving.

## METHODOLOGY

**Research Design :** For the present study survey analytical descriptive methods of research were found to be appropriate. The purpose was to study the selected logical thinking operations in mathematics, viz. observation, coding, inference, application and problem solving and their relationship with total achievement in mathematics of IX standard students.

**Sample :** In the present study, the population consisted of all the IX standard students of Kalaghatagi taluka studying during 1999-2000, caste wise and gender wise details of the population are as follows -

**Description of the Samples**

| | | Total Students |
|---|---|---|
| **Gender** | | |
| Boys | = 200 | 400 |
| Girls | = 200 | |
| **Caste** | | |
| SC/ST | = 50 | |
| OBC | = 150 | 400 |
| GM | = 200 | |
| **Attitude** | | |
| Low Attitude Secondary School Students | = 206 | 400 |
| High School Secondary School Students | = 194 | |

## TOOLS

For present study investigator used the following tools.

1. A test on logical thinking operations in mathematics
2. A scale to measure the attitude towards mathematics The details regarding the construction of tools are given below.

## RESULTS

**Hypothesis :** There is no interaction effect of gender (boys and girls) and attitude (low and high) on logical thinking operation in mathematics i.e. problem solving

To achieve this hypothesis, the two ways ANOVA with interaction design was applied and the results are presented in the following table.

- The boys and girls students of 9th standard have different logical thinking operation in mathematics i.e. problem solving.
- The students of 9th standard with low and high attitude have different logical thinking operation in mathematics i.e. problem solving.
- The boy and girl students of 9th standard with low and high attitude have different logical thinking operation in mathematics i.e. problem solving.

Further, if F is significant to know the pair wise comparisons by applying the Tukeys multiple posts hoc procedures and results are presented in the following table.

**Table-1 : Results of two way ANOVA with interaction design i.e. gender (boys and girls) and attitude (low and high) on logical thinking operation in mathematics i.e. problem solving**

| SV | Degrees of freedom | Sum of squares | Mean sum of squares | F-value | p-value | Sign. |
|---|---|---|---|---|---|---|
| **Main effects** | | | | | | |
| Gender (A) | 1 | 51.6007 | 51.6007 | 107.5843 | 0.00001 | < 0.05, S |
| Attitude (C) | 1 | 344.1089 | 344.1089 | 717.4466 | 0.00001 | < 0.05, S |
| **2-way interaction effects** | | | | | | |
| A x C | 1 | 9.7316 | 9.7316 | 20.2899 | 0.00001 | < 0.05, S |
| Error | 396 | 189.9335 | 0.4796 | | | |
| Total | 399 | 595.3746 | | | | |

**Table-2 : Pair wise comparison of interactions of gender (boys and girls) and attitude (low and high) on logical thinking operation in mathematics i.e. problem solving by Tukeys multiple post hocprocedures**

| Treatment groups | Corresponding means | | p-value | Signi. |
|---|---|---|---|---|
| $a_1c_1$-$a_1c_2$ | 3.8083 | 5.3750 | < 0.05 | S |
| $a_1c_1$-$a_2c_1$ | 3.8083 | 4.2209 | < 0.05 | S |
| $a_1c_1$-$a_2c_2$ | 3.8083 | 6.4211 | < 0.05 | S |
| $a_1c_2$-$a_2c_1$ | 5.3750 | 4.2209 | < 0.05 | S |
| $a_1c_2$-$a_2c_2$ | 5.3750 | 6.4211 | < 0.05 | S |
| $A_2c_1$-$a_2c_2$ | 4.2209 | 6.4211 | < 0.05 | S |

From the results of the above table, it can be seen that,

- The boy students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the boy students of low attitude.
- The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the boy students of low attitude.
- The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the girl students of low attitude.
- The boy students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the girl students of low attitude.
- The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the boy students of high attitude.
- The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the girl students of high attitude.

## CONCLUSION

From the above findings it is concluded that; The boys and girls students of 9th standard have different logical thinking operation in mathematics i.e. problem solving;

- Continued on Page No. 42

ISSN : 2249-2437 RESEARCH

# A STUDY OF ENVIRONMENTAL AWARENESS OF SECONDARY FEMALE TEACHER TRAINEES IN RELATION TO THEIR DEMOGRAPHIC VARIABLES, PERSONALITY FACTORS, SELF - CONCEPT AND STUDY HABITS

✍ **Smt. Ajumbanu Koujalagi,** Principal, Anjuman College of Education, Khatkal, Dist.:Uttar Kannada (Karwar).

***ABSTRACT***

***The purpose of the study was find-out the relation to Independent and Dependent Variables viz., Female Teacher Trainees in Relation to their Demographic Variables, Personality Factors, Self-Concept and Study Habits.***

***The sample of the present study 186 female teachers and 214 male Primary teacher trainees from Karnatak University jurisdiction were selected. Thus random sampling technique was used to select the teacher trainees. The study revealed that; i)Female teacher trainees with extroversion personality factor are more prone to the environmental awareness than those female teacher trainees with introversion personality factor; ii)Female teacher trainees with lower self concept are more prone to the environmental awareness than those female teacher trainees with higher self concept; iii) Female teacher trainees with higher study habits are more prone to the environmental awareness than those female teacher trainees with lower study habits; iv) Female teacher trainees with extroversion/introversion personality factor and lower/higher self concept differ significantly in respect to their proneness to environmental awareness; v) Female teacher trainees with extroversion personality group and higher self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept; vi) Female teacher trainees with introversion personality group and higher self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept; vii) Female teacher trainees with introversion personality group and lower self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept.***

## INTRODUCTION

"Environment is the sum total of all conditions andinfluences that affect the development and life of organisms" ***- Ambaust.***

"The space we live in, the air we breathe, the food we eat, the water we drink and other resources we need, all these we draw from our environment" ***- Dikshit (1984).***

"Environment is representative of physical components of earth, where man is an important factor influencing his environment" **- Gouche (1984).**

The term 'environment' in the present context does not merely mean the 'surroundings'. It includes all living and non-living objects, happenings and forces, both natural and man-made which influence life of an organism, relationship of organism to the environment. Environment is a continuum extending from the medium in which one lives to the distant objects like the sun or moon, and possibly even beyond. All aspects of this continuum influence an organism and vice-versa.

According to Wood Worth "Environment covers all the outside factors that have acted on the individual since he began life. Environment is every thing that influences the individual except the genes".

## ROLE OF TEACHER IN IMPROVING THE ENVIRONMENT

Role of teacher in improving the environment is outlined as under :

- **Awareness :** The teacher should feel that there is an urgent need to educate about environment. The teacher can convince the society about the urgency of environmental education any where teacher himself is adequately aware of it.
- **Efforts for Improvement :** The teacher may make every possible effort to improve the environment while being asked to play an active role in it.
- **Art Campaigns :** The teacher may arrange art campaign on environmental education. Art campaigns would bring environmental awareness. Local shopkeepers may be requested to post these on their windows, thus providing relevance for the children between school and community. The local science fair is also used provided a proper orientation such as "ideas to land pollution" is given.
- **Visits :** (i) Picnics - Students may attend picnic at places, which are surrounded by thick forests to have first hand experience of the neat and clean environment with cool and fresh air as compared to

other place. (ii) Slums: - Students may also be advised to go to the slums so as to witness the environmental conditions prevailing there and effect on the life of the people living there. (iii) Flora and Fauna- Students may also be taken to various places for study of flora and fauna. They may also try to understand ecological problems and realize its impact on human life. (iv) Places of Heavy Rush - Students should also be asked to observe the heavy rush of traffic on the roads causing fuel smoke polluting the environment to find solutions.

- **Curriculum :** The environment education as a topic may be included in the curriculum and the teacher may be made to accepts it. Using every opportunity to teach this. Environmental education may also be incorporated in various subjects like history, geography, civics, economics, languages, literature and music etc.,
- **Articles :** The teacher may ask students to write articles on "pollution" and its control and other aspects of environmental education. They may also take part in essay competitions.
- **Skits and Dramas :** The teacher may arrange skits and dramas on various aspects of environmental education.
- **Films and Videocassettes :** Short films and videocassettes on environment should be shown to the students and the general public. Also some video cassettes displaying the ruthless felling of trees, conversion of land, agricultural into basins. Rivers being polluted by waste water, pollution of air, water and noise and their prevention may be shown to the students and the general public.
- **Other Co-curricular Activities :** The teacher may organize various other co-curricular activities like seminars, essay writing competitions, poetical recitation contests, exhibitions, NSS, Gardening, Floriculture and community cooking etc., to understand and experience pollution free environment. Students of a particular may adopt a village or two or more schools and the activities of NSS may be organized. He should also organize eco-clubs, which could help people in case of flood, earthquake and epidemics.
- **Related Literature :** The teacher may prepare related literature for school library so as to increase the knowledge of students. Teacher may also ask students to prepare album and seek the co-operation of other institutions such as community, family, club and state etc., to awaken in the minds of the students a sense of healthy environment by involving direct and indirect methods.
- **Environmental Pollutants :** The teacher may teach students about environmental pollutants and the techniques of preventing pollution. This process may be practical so that the students may use them in practical life.
- **Contact with Institutions :** The teacher may obtain information regarding pollution and could improve environment by establishing contact through correspondence with institution like society for clean environment Mumbai; Central Public Health Engineering Institute, Mumbai, Central Labour Institute, Nagapur, The Ministry of Environment and Forests, Delhi. The ministry of Environment and forests has been conducting a National Environment Awareness Campaign (NEA) every year since the year 1986 for creating environment awareness at the National Level. The Ministry having two themes has also conducted NEA campaign (1994-95) : (i) Joint Forest Management and (ii) Eco-development.

## REVIEW OF RELATED LITERATURE

Quentin and Duroy (2011) conducted a study on **"The Determinants of Environmental Awareness and Behavior Economics"**

The results show that economic affluence has, at best, a marginally direct influence on environmental awareness and no direct impact on environmental behavior. The paper demonstrates that the degree of urbanization, the level of subjective well-being and the level of income equality have direct effects on awareness, while education, population pressure and happiness are significantly correlated with environmental behavior.

**Zupan (2011)** conducted a study on "Factors of social adjustment to school: child's personality, family and pre-school. Early Child Development and Care".

The role of child's characteristics (gender, cognitive ability, mother-perceived personality traits), family environment (maternal education, self-reported parenting practices) and pre-school experience (at least three years vs. no experience) in social adjustment to school, reflected through teacher reports on social competence and internalising and externalising behaviours, was investigated with six-year-olds (N = 366). Three blocks of factors, that is child, family and pre-school, explained up to 19% of variance in social adjustment with child's characteristics accounting for the major part. Family variables contributed significant, though small, portions of variance to social competence and internalising behaviour over and above the child factors. Pre-school experience was additionally predictive of lower incidence of internalising behaviour and more frequent externalizing behaviour.

## OBJECTIVES

For the present study the following objectives were framed

1. To study the effect of personality factors of female teacher trainees on their environmental awareness.
2. To study the effect of self-concept of female teacher trainees on their environmental awareness.
3. To study the effect of study habits of female teacher trainees on their environmental awareness.
4. To study the interaction effect of personality factor and self-concept of female teacher trainees on their environmental awareness.
5. To study the interaction effect of self-concept and study habits of female teacher trainees on their environmental awareness.
6. To study the interaction effect of personality factor and study habits of female teacher trainees on their environmental awareness.
7. To study the interaction effect of personality factor, self-concept and study habits of female teacher trainees on their environmental awareness.

## HYPOTHESES

1. Effects of extroversion and introversion personality of female teacher trainees differ significantly in terms of their influence on environmental awareness.
2. Effects of high and low self-concept of female teacher trainees differ significantly in terms of their influence on environmental awareness.
3. Effects of high and low study habits of female teacher trainees differ significantly in terms of their influence on environmental awareness.
4. Interaction effect of personality factors X self-concept of female teacher trainees differ significantly in terms of their influence on environmental awareness.
5. Interaction effect of self-concept X study habits of female teacher trainees differ significantly in terms of their influence on environmental awareness.
6. Interaction effect of personality factors X study habits of female teacher trainees differ significantly in terms of their influence on environmental awareness.
7. Interaction effect of personality factors X self-concept X study habits of female teacher trainees differ significantly in terms of their influence on environmental awareness.

To achieve these hypotheses, the ANOVA with 3-way interaction effect model was applied to analyze the data with regard to male teacher trainees. The F-ratios thus calculated are presented in the following tables.

## METHODOLOGY

**Research Design :** Ex Post Facto research design was used for the present study (Kerlinger, 1964, [. 374). Ex Post Facto research is a systematic empirical inquiry in which the investigator does not have direct control of independent variable because their manifestations have already occurred because they are inherently not to manipulate. Inferences about relation among variables are made, without direct Inverversion from concomitant variation of independent and dependent variables.

**Sample :** Using random sampling technique about 400 secondary teacher trainees in the jurisdiction of Karnatak University will be selected. While selecting the sample due representation is given to male and female teacher trainees; urban and rural teacher trainees.

**Tools :** For present study investigator used the following tools.

1. Environmental Awareness Test - Constructed and Standardized by investigator.
2. Personality Factor - Cattell's 16 Personality Factor Scale.
3. Self-concept Scale - Constructed and standardized by investigator
4. Study Habits - Constructed by M. Mukhopadhaya and D.N. Sansanwal

**Results :** The data were analyzed using 3 -way ANOVA technique with a view to identify independent and combined effect of selected variables on minimum qualification Teacher Teaching Effectiveness. The results of the analysis are given in Tables 1* and 2.**

## FINDINGS-FEMALE TEACHER TRAINEES

1. Female teacher trainees with extroversion personality factor are more prone to the environmental awareness than those female teacher trainees with introversion personality factor.
2. Female teacher trainees with lower self concept are more prone to the environmental awareness than those female teacher trainees with higher self concept.
3. Female teacher trainees with higher study habits are more prone to the environmental awareness than those female teacher trainees with lower study habits.
4. Female teacher trainees with extroversion/ introversion personality factor and lower/higher self concept differ significantly in respect to their proneness to environmental awareness.
5. Female teacher trainees with extroversion/ introversion personality factor and lower/higher

*Table-1 : Summary table of ANOVA with respect to Environmental Awareness of Female Samples

| SV | Degrees of freedom | Sum of squares | Mean sum of squares | F-value | p-value | Sign. |
|---|---|---|---|---|---|---|
| Main effects | | | | | | |
| A | 1 | 88.8896 | 88.8896 | 5.5227 | <0.05 | S |
| B | 1 | 286.4033 | 286.4033 | 17.7943 | <0.05 | S |
| C | 1 | 100.2816 | 100.2816 | 6.2305 | <0.05 | S |
| 2way interactions | | | | | | |
| A x B | 1 | 78.3710 | 78.3710 | 4.8692 | <0.05 | S |
| A x C | 1 | 63.6567 | 63.6567 | 3.9550 | <0.05 | S |
| B x C | 1 | 20.0412 | 20.0412 | 1.2452 | >0.05 | NS |
| 3way interactions | | | | | | |
| A x B x C | 1 | 29.5675 | 29.5675 | 1.8370 | >0.05 | NS |
| Error | 278 | 4474.4634 | 16.0952 | | | |
| Total | 285 | 5141.6742 | | | | |

study habits differ significantly in respect to their proneness to environmental awareness.

6. Female teacher trainees with lower/higher self concept and lower/higher study habits do not differ significantly in respect to their proneness to environmental awareness.
7. Female teacher trainees with extroversion/ introversion personality factor, lower/higher self concept and lower/higher study habits do not differ significantly in respect to their proneness to environmental awareness.

To know the pair wise comparisons of treatment groups with respect to environmental awareness were compared by using Scheffe's multiple post hoc procedures and corresponding simultaneous confidence intervals are presented in the following table.

**Table-2 : Comparison of Means of Treatment Groups on Environmental Awareness -Scheffe's 95% Confidence Intervals- Female Samples

| Sl. No. | Comparison treatment groups | Corresponding Means | | 95 % CI | | p-value | Signi. |
|---|---|---|---|---|---|---|---|
| 1. | $a_1b_1$-$a_1b_2$ | 48.7694 | 45.8235 | 1.6246 | 4.2673 | <0.05 | S |
| 2. | $a_1b_2$-$a_2b_1$ | 45.8235 | 49.3125 | -5.1186 | -1.8595 | <0.05 | S |
| 3. | $a_1b_2$-$a_2b_2$ | 45.8235 | 47.7770 | -3.2047 | -0.7024 | <0.05 | S |
| 4. | $a_1c_1$-$a_1c_2$ | 48.2814 | 46.3115 | 0.6465 | 3.2932 | <0.05 | S |
| 5. | $a_1c_2$-$a_2c_1$ | 46.3115 | 48.8857 | -4.0155 | -1.1329 | <0.05 | S |
| 6 | $a_1c_2$-$a_2c_2$ | 46.3115 | 48.2038 | -3.0949 | -0.6897 | <0.05 | S |

The result as shown in Table No.-5.26 reveal the following:

- Female teacher trainees with extroversion personality group and higher self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept.
- Female teacher trainees with introversion personality group and higher self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept.
- Female teacher trainees with introversion personality group and lower self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept.
- Female teacher trainees with extroversion personality group and higher study habits are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower study habits.
- Female teacher trainees with introversion personality group and higher study habits are more prone to the

environmental awareness than the female teacher trainees with extroversion personality factor group and lower study habits.

- Female teacher trainees with introversion personality group and lower study habits are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower study habits.

**Statistical Analysis :** In order to study the environmental awareness of secondary school female teacher trainees in relation to their demographic variables, Personality factors, Self-concept and study habits. the differential analysis were computed and tested for significance as show in the following table-1.

## DISCUSSION AND CONCLUSION

**From the above findings it is concluded that;** i) Female teacher trainees with extroversion personality factor are more prone to the environmental awareness than those female teacher trainees with introversion personality factor; ii)Female teacher trainees with lower self concept are more prone to the environmental awareness than those female teacher trainees with higher self concept; iii) Female teacher trainees with higher study habits are more prone to the environmental awareness than those female teacher trainees with lower study habits; iv) Female teacher trainees with extroversion/introversion personality factor and lower/ higher self concept differ significantly in respect to their proneness to environmental awareness; v) Female teacher trainees with extroversion personality group and higher self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept; vi) Female teacher trainees with introversion personality group and higher self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept; vii) Female teacher trainees with introversion personality group and lower self concept are more prone to the environmental awareness than the female teacher trainees with extroversion personality factor group and lower self concept.

## REFERENCES


- **Aggarwal V. P. and Saini V. P.** (1969), Pattern of Study Habits and its Relationship with Achievement and Parents Economics and Educational Status, Journal of Education Research and Extension, Vol.4, Pp 159-164.
- **Armstrong, W. H.** (1956), Study in Hard Work, Psychological Abstract, Vol-30, P-765.
- **Bhatnagar A.** (1982), Study Involvement Inventory, National Psychological Corporation, Agra.
- **Buch M. B.** (1979), Second Survey of Research in Education, (1972-1978). S Chand and Company Limited, Ram Nagar, New-Delhi.
- **Buch M. B.** (Ed). (1983), Third Survey of Research in Education, (1978-1983), NCERT, New Delhi.
- **Chauhan S. L.** (1982), Sociometric Correlates of Self-Concept, Ph.D., Edu., University.
- **Chester W.** (1960), Encyclopedia of Education Research, (Third Edition). The MacMillan Company: New York.
- **Rosenberg F.R. and Simmons R.G.** (1975) Sex Differences in theSelf- concept at Adolescence Sex Roles, 1, 147-159.
- **Roy Bina** (1990) A Study on Verbal Creativity, General Anxiety and Self-concept as Predictors of Creative Reading Ability of Students Ph.D., Edu., Univ. of Kalyani.


■■

# A COMPARATIVE STUDY OF JOB SATISFACTION AND ORGANIZATIONAL CLIMATE OF HEADS WITH THEIR MORALE IN FIRST GRADE DEGREE COLLEGES IN BELGAUM DISTRICT

✍ **Rotti Veerappa**, Principal, Research Scholar, DBHPS, Dharwad

***ABSTRACT***

***The purpose of the study was to compare the Job satisfaction and Organizational climate of headmasters with their morale in first grade degree colleges in Belgaum District***

***The sample of the present study there are 15 First Grade Degree Colleges (5 Government 5 Government Aided, and 5 Government Un-aided), 15 Heads and 45 Professors who are involved in the present study. The nature of present study is of descriptive survey. Thus random sampling technique was used to select the Colleges and random sampling technique was used to select the Heads and Professors from Rani Chennamma University Jurisdiction, Belgaum District. The study revealed that; Whenever the Job satisfaction increases it support to increases the moral of the principal, individual characteristics, behavior characteristics, group spirit, attitude and community involvement of the principals. Whenever the Organizational climate it support to increases the moral of the principal, individual characteristics, behavior characteristics, group spirit, attitude and community involvement of the principals.***

## INTRODUCTION

Dr. S. Radhakrishnan University Education Commission (1948) has aptly remarked; "The teacher's place in the society is of vital importance. He acts as the pivot for the transmission of intellectual tradition and technical skill from generation to generation and helps to keep the lamp of civilization burning."

In continuation it has also said that, the success of educational process depends so much on the character and ability of the teacher. A teacher must conduct himself as a key organiser of various institutional activities and should not consider that his job ends only with teaching.

The Secondary Education Commission(1952) also points out; "Every teacher and educationist by experience knows that even the best curriculum and the most perfect syllabus remains dead unless it is quickened into life by the right methods of teaching and right kind of teachers."

## CONCEPT OF JOB SATISFACTION

Job satisfaction is a complex phenomenon. It is one of the most crucial and controversial issues of behavioural management in any organization. Job satisfaction is the result of various attitudes the employee holds towards his job, towards related factors and towards life in general. Job satisfaction is caused by and is derived from many inter-related factors. It is viewed as a result of or consequence of the workers' experiences on the job in the relation of his own values, and what he wants or expects from the job satisfaction can be viewed as similar to pleasure.

Super (1939) views "Work satisfaction and life satisfaction depends upon the extent to which the individual finds adequate outlets for his ability, interests, personality traits and values. They depend upon his establishment in a type of work, a work situation and a way of life in which he can play the kind of experiences have led him to consider congenial and appropriate."

R.R. Bullock (1952) in his study of social factors related to job satisfaction has defined it "as an attitude which results from a balancing and summation of many specific likes and dislikes experienced in connection with the job, these evaluations may rest largely upon one's own success or failure in the achievement of personal objectives and upon the perceived contribution of the job and company towards these ends."

H.C. Smith(1955) in his study 'psychology of industrial behaviour holds that "job satisfaction is the employee's judgement of how well his job on the whole is satisfying his various needs."

According to Blum and Naylor (1968), "job satisfaction is the result of various attitudes possessed by an employee. In a narrow sense, their attitudes are related to the job and are concerned with such specific factors as wages, supervision, steadiness of employment, conditions of work, opportunities for advancement, recognition of ability, fair evaluation of work, Social relations on the job, prompt settlement of grievances, fair treatment by employer and other similar items."

Ronan (1970) observes 'Satisfaction is expressed opinion concerning the job, the organization and variables related to job context.'

Sinha (1972) opines that "job satisfaction covers both the satisfaction derived form being engaged in piece of work or in any pursuit of higher order. It is essentially related to human needs and their fulfillment through work. In fact job satisfaction is generated by individual's perception of how well his job on the whole is satisfying to his various needs."

Loke (1976) observes, "job satisfaction may be defined as a pleasurable positive emotional state resulting from the appraisal of one's job or job experiences. It results from the perception that one's job fulfils or allows the fulfillment of one's important job values providing and to the degree that these values are congruent with one's needs".

## ORGANISATIONAL CLIMATE

Organisational climate represents the entire social system of a work group. It is clearly a system concept. Two important aspects of climate are the work place itself and treatment received from the management. Employees feel that the climate is favourable when they are doing something useful that provides a sense of personal worth. Challenging work and responsibility contributed to favourable organizational climate. In the area of treatment received from management the employees want to be listened to and treated as if they are some one of the value. They want to be treated as if the organisation really cared about their needs and problems.

The teacher educators are working in different kinds of institutions government, private aided, and private unaided. Each college/institution is different in its orgaisatinal climate with respect to principals, management, and relations with colleagues. In these educational structures principals who are provided with open type of climate and happy environment and in which their needs and problems are taken care of by the management were found to be satisfied in their jobs. Their job satisfaction also depends upon the relations and interactions they develop within the organization. If these interactions and environment are not congenial teacher educators will be dissatisfied in their job.

Organisational climate influences the principals to be committed to a set of values with a spirit of enthusiasm and dedication in discharging their responsibilities. It also makes them satisfied if the organizational climate fosters good relations between principal, management and colleagues. The principals are satisfied when the organizational climate makes them experiment with new methods, and allows to grow professionally. If the organizations provide all the physical facilities, pay security, chances for advancement, recognition and if principals status is recognized by the management they will be satisfied in their jobs and contribute their best for the growth of organization.

## REVIEW OF RELATED LITERATURE

**Trego. Michael Lee, Ed.D., Miami University, 2002. Do the adaptive leadership characteristic of a public school superintendent positively affect staff perception of job satisfaction.** One of the major goals of an educational leader is to develop a leadership style that can have a positive effect on the staff perception's job satisfaction. The researcher, through observation and the use of human interaction strategies as well as adaptive leadership strategies, realized that by creating an environment that fosters a positive effect on staff perception of job satisfaction, the staff members will have the opportunity to: identify , organize plan, and allocate resources, acquire interpersonal skills; become capable of acquiring and using information; develop an understanding of complex interrelationships; have access to be able to use a variety of technologies, and it can provide to the leader an opportunity to foster environments and work process within which people can develop high-quality relationship-relationship with each other, relationships with the group with which they work, and the relationships with stakeholders of the community.

**Boran Toker,** (2011) "Job satisfaction of academic staff: an empirical study on Turkey", Quality Assurance in Education, The job satisfaction levels of the academicians were found to be moderately high. Social status was ranked as the highest and compensation was ranked as the lowest of the examined items. The results of the study indicated that professors reported a higher level of job satisfaction as compared to instructor and research assistants. Nonetheless, among the demographic variables age, length of service in present university and in higher education as a whole were significantly related to job satisfaction. Marital status and gender were not significantly related to job satisfaction. Shanker, V(1987) studied teachers responsibility and its relationship with school climate and job satisfaction of teachers at the secondary school level and observed the following: (i) Female teachers of different school climates excepting antonomus climate were found more responsible towards their profession than their male counterparts; (ii) Teachers responsibility towards their profession was not related to alienation and production emphasis' dimensions of organizational climate; (iii) Both male and female teachers working in 'autonomous' and 'controlled' school climate were found to be more responsible and highly satisfied. (iv) Teachers job satisfaction did not show any significant relationship with the dimension of 'psychological hindrance' and 'production emphasis' of the organizational climate.

## OBJECTIVES OF THE STUDY

1. To find out the relationship between job satisfaction

of principal with their morale of First Grade Degree Colleges.

2. To find out the relationship between organizational climate of principal with their morale of First Grade Degree Colleges.

## HYPOTHESES

1. There is no significant relationship between job satisfaction of principals with their morale and its dimensions i.e. individual characteristics, behavioural characteristics, group spirit, attitude towards the job and community involvement.
2. There is no significant relationship between organizational climate with Principals' morale and its dimensions i.e. individual characteristics, behavioural characteristics, group spirit, attitude towards the job and community involvement.

## METHODOLOGY

## METHOD OF RESEARCH

The present study intends to investigate the job satisfaction and Organizational climate of the principals with their morale of First Grade Degree Colleges in Karnataka State in Rani Chennamma University Jurisdiction. The nature of present study is of descriptive survey. In fact most of the earlier researchers who have worked on the related concerns have, invariably followed this popular method of survey research to meet their research questions effectively. Therefore, in the present research work the investigator used the descriptive survey research method with convenience in fulfillment of the research questions raised.

## SAMPLE

The present study is concerned with the job satisfaction and Organizational Climate of Principals with their morale of First Grade Degree Colleges. Hence, the investigator has to consider following factors for choosing the appropriate sample for the study.

1. First Grade Degree Colleges 15

Government Colleges-05, Private Aided - 05, Private Un-aided colleges - 05 Totally 15 First Grade Colleges were selectedestablished in Rani Chennamma University, Jurisdiction

2. Heads of First Grade Degree Colleges. 15
3) Professors 3x15 =45

## TOOLS USED

1. General Data Sheet
2. Job Satisfaction Scale for the principals.
3. Principal Morale Inventory
4. Self Rating Scale for principals.
5. Organizational Climate Scale

## COLLECTION OF DATA

In the first phase the investigator given the General Data Sheet to the heads of First Grade Degree Colleges and collected the general information required from each college.

During second phase the Job Satisfaction Scale, Self Rating Scale to all the heads.

## STATISTICAL ANALYSIS

In order to investigate the relation of independent variables with dependent variables, the Pearson's correlation coefficient technique was applied and simple relationships were calculated. In order to test the significance of obtained 'r' was subject to further confirmative test and the appropriate test was used.

- Whenever the job satisfaction increases its support to increases the morale of the principals of Degree Colleges.

**Table -1 : Correlation coefficient between job satisfaction of principals with their morale and its dimensions i.e. individual characteristics, behavioural characteristics, group spirit, attitude towards the job and community involvement.**

| Variables | Job satisfaction | | t-value | p-value | Signi. |
|---|---|---|---|---|---|
| | r(X-Y) | $r^2$ | | | |
| Personal moral inventory | 0.9564 | 0.9146 | 26.9901 | <0.01 | S |
| Dimensions | | | | | |
| Individual characteristics | 0.9559 | 0.9137 | 26.8362 | <0.01 | S |
| Behavioural characteristics | 0.9428 | 0.8888 | 23.3127 | <0.01 | S |
| Group spirit | 0.9456 | 0.8942 | 23.9691 | <0.01 | S |
| Attitude towards the job | 0.9552 | 0.9123 | 26.6002 | <0.01 | S |
| Community involvement | 0.9137 | 0.8349 | 18.5411 | <0.01 | S |

**From the above table, it is clear that,**

- Whenever the job satisfaction increases it support to increases the individual characteristics of principals of Degree Colleges.
- Whenever the job satisfaction increases it support to increases the behavioural characteristics of principals of Degree Colleges.
- Whenever the job satisfaction increases it support to increases the group spirit of principals of Degree Colleges.
- Whenever the job satisfaction increases it support to increases attitude of the principals towards their job.
- Whenever the job satisfaction increases it support to increase the community involvement of principals of Degree Colleges.
- Whenever the organizational climate increases it support to increase the morale of principals of Degree Colleges.

**Table - 2 : Correlation coefficient between organizational climate with Principals' morale inventory and its dimensions i.e. individual characteristics, behavioural characteristics, group spirit, attitude towards the job and community involvement.**

| Variables | Job satisfaction | | t-value | p-value | Signi. |
|---|---|---|---|---|---|
| | r(X-Y) | $r^2$ | | | |
| **Principals' morale** | **0.7961** | **0.6338** | **10.8478** | **<0.01** | **S** |
| **Dimensions** | | | | | |
| **Individual characteristics** | **0.8079** | **0.6527** | **11.3044** | **<0.01** | **S** |
| **Behavioural characteristics** | **0.7866** | **0.6187** | **10.5051** | **<0.01** | **S** |
| **Group spirit** | **0.7922** | **0.6275** | **10.7038** | **<0.01** | **S** |
| **Attitude towards the job** | **0.7776** | **0.6047** | **10.1981** | **<0.01** | **S** |
| **Community involvement** | **0.7739** | **0.5989** | **10.0766** | **<0.01** | |

**From the above table, it is clear that,**

- Whenever the organizational climate increases it support to increase the individual characteristics of principals of Degree Colleges.
- Whenever the organizational climate increases it support to increase the behavioural characteristics of principals of Degree Colleges.
- Whenever the organizational climate increases it support to increase the group spirit of principals of Degree Colleges.
- whenever the organizational climate increases it support to increase the attitude of the principals towards their job.
- Whenever the organizational climate increases it support to increase the community involvement of principals of Degree Colleges.

## DISCUSSION AND CONCLUSION

On the basis of findings of the study it is concluded that, Whenever the Job satisfaction increases it support to increases the moral of the principal, individual characteristics, behavior characteristics, group spirit, attitude and community involvement of the principals. Whenever the Organizational climate it support to increases the moral of the principal, individual characteristics, behavior characteristics, group spirit, attitude and community involvement of the principals.

## REFERENCES


- **Afsarkhan** (1995) Job Satisfaction: Definitions and Theories : Journal of Indian Education, XXI, 1,May, 1995, p. 22-28.
- **Amar Singh** (1985) Correlates of Job Satisfaction among different Professions Research in Educational Abstracts, in Buch M.B.(Ed.), Fourth Survey of Research in Education (1983-88), Volume-2, NCERT, New Delhi
- **A Rajeevalochana.** A Study of Administrator Behaviour in Secondary Schools of Tamil, an Unpublished Ph.D., Thesis, M.S.U., 1981.
- **Bhatnagar, M.** (1979) A Study of Organisational Climate of the Teacher Training Institutions of U.P., and Its Relationship with Their Effectiveness, Research in Teacher Education Abstracts 1127, 792, (In, Buch M.B.(Ed.), Third Survey of Research in Education (1978-83) Baroda, Society for Educational Research and Development.
- **Carrell, M.R. and Elbert N.F.** (1974) Some Personal and Organisational Determinants of Job Satisfaction of Postal clerks, Academy of Management Journal, 17,2,368-372.
- **Bhaskara Rao. D and Ramakrishnaiah D.** (1998) Job Satisfaction of College Teachers, Discovery Publishing House, New Delhi.
- **Bidwell, C.E.** (1959) The Administration and Teaching Satisfaction, Phi Delta Kappan, 37, 258-288.
- **Birmingham, J.A.** (1985) Job Satisfaction and Burn Out Among Minnesota Teachers, Dissertation Abstracts, International, 45, 8, 2318-A.


■■

# AN INTERACTION EFFECT OF MINIMUM QUALIFED TEACHERS TEACHING EFFECTIVENESS, STUDENTS PERSONALITY AND ATTITUDE TOWARDS SCIENCE ON THEIR ACADEMIC ACHIEVEMENT

✍ **Jerushah Pattar**, Assistant Professor, J.S.S. Sri Manjunatheswar College of Education, Dharwad
✍ **Dr. N. B. Kongawad,** Principal, J.S.S. Sri Manjunatheswar College of Education, Dharwad

***ABSTRACT***

***The purpose of the study was to analyse Independent and Dependent Variables viz., Minimum Qualification Teacher Teaching Effectiveness, Students Personality and Attitude towards Science on Academic Achievement in Science.***

***The sample of the present study are 60 schools (30 Urban and 30 Rural). 240 female teachers and 1200 students studying in IX standard taught by the respective selected teachers who are involved in the present study. From each class three students (above average, average and below average) were also selected to rate each teacher. Thus stratified random sampling technique was used to select the teachers and random sampling technique was used to select the students from Dharwad and Gadag District. The study revealed that, i) The teachers with minimum qualification have influenced these students with introversion and low neurotic personality type to achieve more in science than the students with extraversion and high neurotic personality type; ii)The teachers with minimum qualification have influenced the students with favourable attitude towards science to achieve more in science the students with unfavourable attitude towards science.***

## INTRODUCTION

The purpose of the present study was made an attempt to know the minimum qualification Teachers Teaching Effectiveness of Secondary School Students Personality and Attitude towards Science on their Academic Achievement. The Dictionary of Education (Good and Markel, 1959) defines teacher efficiency as "the degree of success of a teacher in promoting instructional and other duties specified in his contract and demand by the nature of his position." The effective teacher is only an abstraction. Effectiveness stems from reasoned or value judgement. Teacher effectiveness is judged on the basis of goals of education. The term "teacher-effectiveness" will be used to refer to the result a teacher gets or to the amount of progress the pupils make towards some specified goals of education. Effective teachers are those who contribute to the growth of pupils. Another type of definition says that "personality is more than the sum of its parts and that more than is its pattern or organization". Some people define personality as "an individual's characteristic pattern of adjustment'. According to Cattel (1950), "Personality is that which permits a prediction of what person will do in a given situation". Analysis of educational achievement in terms of its predictors has been increasing as a focal point of research activity. Some attempts have been successful in establishing a direct relationship between certain variables and academic performance. During the past two decades there have been fervent researches to probe into variables other than intelligence which might determine achievement. These variables may be grouped as under:

## REVIEW OF RELATED LITERATURE

**Yadav and Ghamandi Lal (1992)** studied the impact of teacher training on certain personality characteristics of trainees and found that (i) All the dimensions of self-concept increased through teacher training except the feeling of inadequacy, which decreased through this programme; ii) Social maturity of the teacher-trainees increased in all the dimensions except for self-direction, personal adequacy and enlightened trust; **Beckman (1993)** studied the personality characteristics of effective teachers and found that, the Gregore Mind Style Delineator ordering variable of randomness significantly impacted effective teaching; **Singh Mahendra and Pooniya A.S. (2002)** Studied a comparative study of community attitude towards government and private primary schools and found that (i) Parents were impressed with the attractive primary school building but 56 percent parents were not satisfied with buildings. In their view, there was no correlation between school building and quality education; (ii) Most of the parents appreciated the ability and capability of

private schools; **Crulckshank(2000)** concluded that good teaching have included ideal, analytic, effective, dutiful, competent, expert, reflective, satisfying, diversity-responsive and respected. If good teaching could be observed and measured, the results would not indicate a one-size-fits-all model, but rather demonstrate that good teaching is linked to multiple, desirable outcomes; **Raj and Sreethi (2000)** studied academic achievement as related to procrastination behaviour and study habits. Sample consisted of 166 male and 134 female government and private higher secondary school students in Tamil Nadu. The inventory developed by Sananada Raj was used to measure procrastination and study habits. Results revealed that procrastination behaviour lead to improper study habits which further lead to lower academic achievement. Differences in procrastination behaviour, study habits and in turn academic achievement were observed among students of government schools and private schools.

## OBJECTIVES

For the present study the following objectives were framed

1. To study the effect of minimum qualification of teachers' teaching effectiveness on achievement of students in science.
2. To study the interaction effect of students' personality and attitude towards science on the achievement in science.
3. To study the interaction effect of students' personality and minimum qualification of teachers teaching effectiveness on achievement in Science.
4. To study the interaction effect of students' attitude towards science and minimum qualification of teachers' teaching effectiveness on achievement in Science.
5. To study the interaction effect of students' personality, attitude towards science and minimum qualification of teachers teaching effectiveness on achievement of students in science.

## HYPOTHESES

i) Effects of minimum qualification of teachers towards teaching science and students personality types differs significantly in terms of their influence on achievement in science.

ii) Effects of minimum qualifications of teachers' teaching for the students with favourable and unfavourable attitude towards science differ significantly in terms of their influence on achievement in science.

iii) Effects of minimum qualification of teachers' teaching effectiveness and ineffectiveness differ significantly in terms of their influence on achievement of students in Science.

iv) The interaction effects of minimum qualification of teachers' teaching effectiveness and students attitude towards science and students personality types differs significantly in terms of their influence on achievement in science.

v) An Interaction effects of minimum qualification of teachers teaching effectiveness and students personality types differ significantly in terms of their influence on achievement in science.

vi) An Interaction effects of minimum qualification of teachers' teaching effectiveness and for the students attitude towards science differ significantly in terms of their influence on achievement in science.

vii) An Interaction affects minimum qualifications of teachers teaching effectiveness **X** students' attitude towards science **X** students' personality types differ significantly in terms of their influence on achievement in science.

To achieve these hypotheses, the ANOVA with 3-way interaction effect model was applied to analyze the data with regard to minimu qualification teachers. The F-ratios thus calculated are presented in the following tables.

## METHODOLOGY

### Research Design

Ex Post Facto research design was used for the present study (Kerlinger, 1964, [. 374). Ex Post Facto research is a systematic empirical inquiry in which the investigator does not have direct control of independent variable because their manifestations have already occurred because they are inherently not to manipulate. Inferences about relation among variables are made, without direct Inverversion from concomitant variation of independent and dependent variables.

## SAMPLE

The sample of the present study there are 60 schools (30 Urban and 30 Rural). 240 female teachers and 1200 students studying in IX standard taught by the respective selected teachers who are involved in the present study. From each class three students (above average, average and below average) were also selected to rate each teacher. Thus stratified random sampling technique was used to select the teachers and random sampling technique was used to select the students from Dharwad and Belgaum District.

## TOOLS

The following tools were used for the collection of required data;

i) Junior Personality Inventory (JPI) Kanada version. constructed and standardized by Eysenck (1956).

ii) Achievement Test in Science. the investigator planned to construct and standardize an achievement test in Science.

iii) Student Rating of Teaching Effectiveness Scale(SROTES), developed by Shashikala Deshpande (2001).

iv) High School Students' Attitude towards Science Scale developed by Freeman (1965).

## RESULTS

The data were analyzed using 3 -way ANOVA technique with a view to identify independent and combined effect of selected variables on minimum qualification of Teacher Teaching Effectiveness. The results of the analysis are given in Tables 1 and 2.

## STATISTICAL ANALYSIS

In order to study the scores of minimum qualification of teacher with their teaching effectivenes secondary school students personality and attitude towards science on their academic achievement the differential analysis were computed and tested for significance as shown in the following table-1.

**Table-1: Summary table of ANOVA with 3-way interaction effects with respect to teachers with minimum qualifications.**

| SV | DF | SS | MSS | F-value | p-value | Signi. |
|---|---|---|---|---|---|---|
| Main Effects | | | | | | |
| Personality | 1 | 278.45 | 278.45 | 4.7718 | <0.05 | S |
| Attitude | 1 | 128.45 | 128.45 | 2.2013 | >0.05 | NS |
| Teaching effectiveness | 1 | 984.27 | 984.27 | 16.8673 | <0.05 | S |
| 2-way Interactions Personality x Attitude | 1 | 262.73 | 262.73 | 4.5024 | <0.05 | S |
| Personality x Teaching effectiveness | 1 | 15.69 | 15.69 | 0.2689 | >0.05 | NS |
| Attitude x Teaching effectiveness | 1 | 100.14 | 100.14 | 1.7161 | >0.05 | NS |
| 3-way Interactions | | | | | | |
| Personality x Attitude x Teaching effectiveness | 1 | 80.00 | 80.00 | 1.3710 | >0.05 | NS |
| Error | 155 | 9044.86 | 58.35 | | | |
| Total | 162 | 10894.61 | 1908.10 | | | |

From the above table, we have seen clearly

- A significant difference was observed between students Introversion and low Neuroticism and Extroversion high Neuroticism personality with respect to academic achievement in science since, the obtained F-ratio (4.7718) is greater than the tabled F-ratio (3.8400) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted when teaches with minimum qualifications are concerned.
- A non-significant difference was observed between favourable and unfavourable attitude of students towards the science with respect to academic achievement in science, since; the obtained F-ratio (2.2013) is smaller than the tabled F-ratio (3.8400) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected when teachers with minimum qualifications are concerned.
- A significant difference was observed between effective and ineffective teaching of teachers with respect to academic achievement in science, since; the obtained F-ratio (16.8673) is greater than the tabled F-ratio (3.8400) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted when teachers with minimum qualifications are concerned.
- The interaction effect of factors personality and attitude towards science on academic achievement in science is found to be significant, since; the obtained F-ratio (4.5024) is greater than the tabled F-ratio (3.8400) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted when teaches with minimum qualifications are concerned.
- The interaction effect of factors personality and teachers teaching effectiveness on academic achievement in science is found to be not significant,

since; the obtained F-ratio (0.2689) is smaller than the tabled F-ratio (3.8400) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected when teaches with minimum qualifications are concerned.

- The interaction effect of factors attitude towards science and teachers teaching effectiveness on academic achievement in science is found to be not significant, since; the obtained F-ratio (1.7161) is smaller than the tabled F-ratio (3.8400) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected when teachers with minimum qualifications are concerned.
- The interaction effect of factors personality, attitude towards science and teachers teaching effectiveness on academic achievement in science is found to be not significant, since; the obtained F-ratio (1.3710) is smaller than the tabled F-ratio (3.8400) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected when teachers with minimum qualifications are concerned.

If F is significant, to know the pair wise interaction between personality and Attitude on academic achievement in science, the Scheffes multiple comparison tests is applied and the results are presented in the following table.

Table-2: Multiple comparisons of means of interaction between personality and attitude by Scheffe's test - teaches with Minimum qualifications.

**Table-2 : Multiple comparisons of means of interaction between personality and attitude by Scheffe's test - teaches with Minimum qualifications.**

| No. | Comparison of treatment groups | Corresponding means | p-value | Signi. |
|---|---|---|---|---|
| 1. | A1b1 & a2b1 | 62.7094, 59.2000 | <0.05 | S |
| 2. | A1b2 & a2b1 | 62.4784, 59.2000 | <0.05 | S |
| 3. | A2b1 & a2b2 | 63.1115, 59.2000 | <0.05 | S |

Note :

1. Comparison of other groups of entire sample were found to be not significant.
2. Higher the mean scores indicates higher influence of predictor variables on criterion variable.

***The above table result reveals the following***

- The means of the treatment groups' a1b1 (62.7094) & a2b1 (59.2000) differ significantly in respect of their influence on academic achievement of students in science at 0.05% level of significance. It means that, mean of the treatment group a1b1 is greater than the mean of the treatment group a2b1. This further implies that the Students with Introversion and low Neuroticism personality type and favourable attitude will influence more on academic achievement of students in science than Students with Extroversion, high Neuroticism personality type and favourable attitude towards the science when teachers with minimum qualifications are concerned.
- The means of the treatment groups' a1b2 (62.4784) & a2b1 (59.2000) differ significantly in respect of their influence on academic achievement of students in science at 0.05% level of significance. It means that, mean of the treatment group a1b2 is greater than the mean of the treatment group a2b1. This further implies that the Students with Introversion and low Neuroticism personality type and favourable attitude will influence more on academic achievement of students in science than Students with Extroversion high Neuroticism personality type and favourable attitude towards the science when teaches with minimum qualifications are concerned.
- The means of the treatment groups' a2b1 (63.1115) & a2b2 (59.2000) differ significantly in respect of their influence on academic achievement of students in science at 0.05% level of significance. It means that, mean of the treatment group a2b1 is greater than the mean of the treatment group a2b2. This further implies that the Students with Extroversion high Neuroticism personality type and favourable attitude will influence more on academic achievement of students in science than Students with Extroversion high Neuroticism personality type and unfavourable attitude towards the science.

## DISCUSSION AND CONCLUSION

i) The teachers with minimum qualification have influenced these students with introversion and low neurotic personality type to achieve more in science than the students with extraversion and high neurotic personality type; ii)The teachers with minimum qualification have influenced the students with favourable attitude towards science to achieve more in science than the students with unfavourable attitude towards science; iii) The teachers with minimum qualifications have influenced more for the students with introversion and low neurotic personality type and having favourable attitude towards science to achieve more in science than the students with introversion and low neurotic personality type and having unfavourable attitude towards science; iv) The teachers with minimum qualifications have influenced more for the students with

introversion and low neurotic personality type for having favourable attitude towards science on academic achievement in science than the teachers with minimum qualification for the students with extraversion and high neurotic personality type and also having unfavourable attitude towards science; v) The teachers with minimum qualification have influenced more for the students with extraversion and high neurotic personality type and having favourable attitude towards science for the academic achievement in science than the students with extraversion and high neurotic personality type with unfavourable attitude towards science.

## REFERENCES


- **Alishie L.** (1996). Participation in Extra Curricular Activities and the Relationship to Academic Achievement and School AttendanceAmong High School Seniors. Dissertation Abstracts International, 57(3).
- **Bhatnagar J.K. Sharma, M.** (1992). Study of Relationship between Parental Education and Academic Achievement. Psychological Studies, 37(2-3_, xpp. 126-128.
- **Dixit Santosh Kumar, C.** (1980), The Effect of Personality Factors and Self-concept of Educa- tional Achievement. Ph.D., Agra University.
- **Grewal S.S.**(1976). Intellectual and Personality Correlates of teacher Effectiveness at the Higher Secondary School Stage. Ph.D., Punjab University.
- **Hall H.O.** (1964). Professional Preparation of Teacher Effectiveness Journal of Teacher Education, 215, pp. 72-76.
- **Kulusum Umme,** (1982). Teacher Educators Effectiveness : A Research Study. Indian Educational Review, Vol. XX. No. 2, p.5.
- **Rushton J.R.** (1966). The Relationship Between Personality Characteristics and Scholastic Success in Eleven year old Children. British Journal of Educational psychology. 36:178-184.
- **Sharma S.A.** (1972). Relationship Between Pattern of Teacher Class-room Behaviour and Pupil's Attainment in Terms of Instructional Objectives. Unpublished Doctoral Thesis in Education. Baroda: M.S. University.


■■

- From Continued on Page No. 5

One should be aware and alert always and that is the true characteristic of the Sharanas.

We should act, and do what we preach and that is our positive action. Let us be guided by our consitience.

We should never act as if we know everything before our elders or our Guru. If we do son that is our foolishness.

They people in the past did all the Mating
Things and excelled in hypocritical workship
They Sacrificed animals. The life was just a
Kite without any control.

Channabasavanna exposed the futility of all this and told the prople to introspect themselves. In this way, suggested to cultivate positive psychological mind to live with knowledge and perfection.

While worshipping one should give importance to our mind, emotion and conscience. We should never consider the days like Monday or Tuesday as important. We should inculcate the true values of life not the days. Every moment is divine. Here we notice the moral value of life.

We don't get salvation or Mukti by applying sacred ash and weariung Rudrakshi.

We may call the crow and worship it is God.

We may give the food but if the same crow.

Enters our house, we consider it not as good sign. In his work "Misharapana" Channabasavanna says about pleasure, Happiness and wellness". We should never follow superstitions. We should have a perfect knowledge and follow it. Some may taste the flesh of an animals as if it is our tradition but it is certainly a wrong belief. Killing another living being is definitely a sin. He tells about 8 things while dedicating to God. They are -

1) Anga (devotee, lord, Reciver etc.)
2) The Bhakti (Zest and Zeal etc.)
3) Our dedication (holy hands, no arrogance, knowledge)
4) Our thoughts (Practicing workship)
5) Strength (action, knowledge)
6) Appearance (The very soul, eye, the heart)
7) Offerings (Sacresh ash, Sound, Tones etc.)
8) Prasad (Fragrance)

All these eight factors contribute the real personality of a devotee. They lead us to follow our life in the positive way.

## CONCLUSION

- We should shun lust for other's wives.
- We should never cheat or desire for money which is not ours.
- We should always speak the truth.
- We should never betray others.
- We should be kind, merciful and good to all the living beings.
- Our deeds should be followed in our action.
- We should always be at the Lotus feet of the lord.

Optimism and self asykasy, hope these all positive physiological facts we find in Channabasavanna's Vachanas as well as positive physiologist Dekarthe's Pleasure, Happieness, Wellness also we find.

In all the Vachanas of Channabasavanna we see his ardent devotion towards every positive aspect. One should worship God with noble and pure heart and chant the name of God always without any derives.

■■

ISSN : 2249-2437 RESEARCH

# A STUDY OF ADJUSTMENT PROBLEMS OF GIRLS STUDENTS STUDYING IN MORARJI DESAI RESIDENTIAL SCHOOLS IN KARNATAKA

✍ **Mala Shirol**, Assistant Professor, J.T. College, Gadag.

***ABSTRACT***

***The purpose of the study was find-out the Adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation with their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement of Girls and Boys Students Studying in Morarji Desai Residential Schools in Karnataka.***

***Descriptive and predictive researches method is appropriate for the study. The sample of the present study Urban 63, Rural 237 and Girls-110 Students from Murarji Desai Residential Schools in Karnataka State. Thus random sampling technique was used to select the Students. The study revealed that; The 'residence adjustment problems' of girls have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement. The 'food adjustment problems' of girls have significant relationship with total academic achievement. The 'peer-group adjustment problems' of girls have significant relationship with Kannada, English, Hindi, Mathematics, Social Studies and total academic achievement. The 'curriculum adjustment problems' of girls have significant relationship with Science. The 'classroom teaching adjustment problems' of girls have significant relationship with Kannada, Hindi, Mathematics and Social Studies. The 'evaluation adjustment problems' of girls have significant relationship with English, and total academic achievement.***

## INTRODUCTION

### MORARJI DESAI RESIDENTIAL SCHOOL (MDRS) SCHEME

It has been truly accepted that children with special talent or aptitude should be provided opportunities to proceed at a faster pace than others. In fact, such children are found in all sections of the society, in all areas including the most backward one. However, so far, education with good quality has been available only to well-to-do sections of society, the poor have been left out.

## AIMS OF MDRSs

- The broad aims for the establishment of MDRSs are:
- To serve the objective of excellence coupled with equity;
- To promote national integration;
- To provide opportunities to the talented children to develop their full potential; and
- To facilitate the process of school improvement.

Within this broad framework, the specific objectives of this scheme are as follows:

- To provide good quality modern education including a strong component of culture, inculcation of values, awareness of the environment, adventure activities and physical education to the talented children pre-dominantly from the rural areas who are economically backward.
- To ensure that all students of MDRSs attain a reasonable level of competence in three languages as envisaged in Three Language Formula: and
- To serve, in each Taluka as focal points for improvement in the quality of school education in general, through sharing of experiences and facilities.

## SPECIAL FEATURES OF MDRSs

### SPECIAL FEATURES OF MDRSs ARE AS FOLLOWS

- The MDR schools will be covering classes from V to X.
- Education in MDRSs will be free of cost including boarding and lodging, expenses on uniform, text-books, stationery, rail/bus fare from and to the home, etc.
- The MDRSs are co-educational and residential in nature.
- Hostel accommodation is in the form of dormitories with attached living quarters for the House-master/ mistress and his/her family to promote congenial family-like atmosphere for students.
- Separate dormitories are provided for girl students with attached staff quarter of House-mistress.
- The location of MDRSs will be in rural areas.
- Sufficient building facilities for classroom teaching, laboratories, co-curricular activities, etc., are provided.

- Sufficient facilities and materials for conducting sports and games, gymnastics, etc. Students participation in sports and games, work-experience. SUPW and other cultural activities are compulsory.
- MDRSs are primarily for children from rural areas. Hence, admission of children from urban areas will be restricted to a maximum of one-fourth.

## REVIEW OF RELATED LITERATURE

Peter Ponraj (1993) examined the adjustment problems of the adolescents. The study was carried out to find the levels of adjustments of adolescents at home, school, society and health as well as in terms of sex and religion of the respondents.

The major findings of the study were :

(i) Girls from both the Hindu and Christian community were better adjusted than the boys at the three levels of adjustment at home.

(ii) Girls were better adjusted than boys at the three levels of adjustment at school,

(iii) Both the Hindu and Christian girls were better adjusted than boys at the three levels of adjustment in society, and

(iv) Christian boys were better adjusted than Hindu boys at the three levels of adjustment at school and Hindu girls were better adjusted than Christian girls at the three levels of adjustment at school.

Talawar (2002) conducted a study on adjustment problems of students studying in Police Residential School, Dharwad with regard to residence, food, peer-group, curriculum, co-curriculum, and classroom teaching and evaluation adjustment problems.

The major findings of the study were :

(i) There is a relationship between 8th, 9th and 10th Standard students and their residence adjustment problems being experienced.

(ii) There is a relationship between 8th, 9th and 10th Standard students and their of food adjustment problems being experienced.

(iii) There is a relationship between 8th, 9th and 10th Standard students and their peer-group adjustment problems being experienced.

(iv) There is a relationship between 8th, 9th and 10th Standard students and their curriculum adjustment problems being experienced.

## OBJECTIVES

(i) To investigate the relationship of various components of Girls adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching and evaluation with their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

## HYPOTHESES

HR1 There exists a significant relationship between various components of girls adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching, evaluation and academic achievement in Kannada.

HR2 There exists a significant relationship between various components of girls adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching, evaluation and academic achievement in English.

HR3 There exists a significant relationship between various components of girls adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching, evaluation and academic achievement in Hindi.

HR4 There exists a significant relationship between various components of girls adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching, evaluation and academic achievement in Mathematics.

HR5 There exists a significant relationship between various components of girls adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching, evaluation and academic achievement in Science.

HR6 There exists a significant relationship between various components of girls adjustment problems - residence, food, peer-group, curriculum, co-curriculum, classroom teaching, evaluation and academic achievement in Social Studies.

HR7 There exists a significant relationship between various components of girls adjustment problems - residence, food peer-group, curriculum, co-curriculum, classroom teaching, evaluation and total academic achievement.

## METHODOLOGY

The present research seeks to find out the answers to questions: What adjustment variables seem to systematically associated with academic achievement of students? Which adjustment factors will predict the academic achievement of the students in a more efficient way? What would be the direct and indirect effects of selected adjustment components on academic achievement of students? How the adjustment variables

will cluster together when they are interrelated? The descriptive and predictive researches were more appropriate to answer these questions.

## RESEARCH DESIGN

### SAMPLE

The study is confined to the students of X Standard studying in MDRSs of Karnataka. Random sampling technique was used to select the schools from both urban and rural Students.

**Description of Sample (n = 300)**

| Sex | | Locality | |
|---|---|---|---|
| Boys | Girls | Urban | Rural |
| 190 | 110 | 63 | 237 |
| Total 300 | | 300 | |

### TOOLS

- Talawar's Residence Adjustment Problem Check-list (RAPC)
- Talawar's Food Adjustment Problem Check-list (FAPC)
- Talawar's Peer-group Adjustment Problem Check-list (PAPC)
- Development of Curriculum Adjustment Problem Check-list (CAPC)
- Development of Co-curriculum Adjustment Problem Check-list (CCAPC)
- Development of Classroom Teaching AdjustmentProblem Check-list (CTAPC)
- Development of Evaluation Adjustment Problem Check-list (EAPC)

**elationship Between Adjustment Variables and Academic Achievement in Girls ( n = 110 )**

In order to study relationships of the scores obtained by girls in different adjustment areas with the scores in the school subjects, Pearson's correlation coefficients were computed and tested for significance. The findings are given in the following table:

**Table -2 : Correlation Coefficients and their Significance for Adjustment Variables and Academic Achievement Variables - Girls ( n = 110 )**

| Adjustment Variables | Kannada (1) | | | English | | | Hindi | | | Mathematics | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 'r' | 't' | Sig. | 'r' | 't' | Sig. | 'r' | 't' | Sig. | 'r' | 't' | Sig. |
| 1 | 2 | | | 3 | | | 4 | | | 5 | | |
| RAPC | -0.1266 | -2.6976 | Yes | -0.1243 | -2.6541 | Yes | -0.188 | -4.0651 | Yes | -0.1452 | -3.1120 | Yes |
| FAPC | -0.0339 | -0.3520 | NS | -0.0337 | -0.3506 | NS | -0.0435 | -0.4530 | NS | 0.1424 | 1.4953 | NS |
| PAPC | -0.1642 | -3.5301 | Yes | -0.1200 | -2.5672 | Yes | -0.1380 | -2.9592 | Yes | -0.1342 | -5.8510 | Yes |
| CAPC | 0.0027 | 0.0282 | NS | 0.0078 | 0.0812 | NS | -0.0760 | -0.7918 | NS | -0.0243 | 0.2527 | NS |
| CCAPC | -0.1616 | -1.7017 | NS | -0.0176 | -0.1833 | NS | -0.0529 | -0.5500 | NS | -0.0819 | -0.8535 | NS |
| CTAPC | -0.1071 | -2.2854 | Yes | -0.0199 | -0.2069 | NS | -0.1300 | -2.7842 | Yes | -0.2411 | -5.2740 | Yes |
| EAPC | -0.0692 | -0.7205 | NS | -0.2380 | -5.2051 | Yes | -0.1531 | 1.6100 | NS | 0.0265 | 0.2753 | NS |

**Table -2 : (Contd.)**

| Adjustment Variables | Science | | | Social Studies | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | 'r' | 't' | Sig. | 'r' | 't' | Sig. | 'r' | 't' | Sig. |
| 1 | 2 | | | 3 | | | 4 | | |
| RAPC | -0.1140 | -2.4372 | Yes | -0.1140 | -2.376 | Yes | -0.1406 | -2.1772 | Yes |
| FAPC | 0.0592 | 0.6161 | NS | -0.0289 | 0.3002 | NS | -0.1242 | 1.4359 | Yes |
| PAPC | -0.0732 | -0.7623 | NS | -0.1721 | -3.7081 | Yes | -0.1872 | 3.0561 | Yes |
| CAPC | -0.1640 | -3.5300 | Yes | -0.0314 | -0.3260 | NS | -0.0373 | -0.3877 | NS |
| CCAPC | -0.1029 | -1.0748 | NS | -0.1690 | -1.7817 | NS | -0.1348 | -1.1434 | NS |
| CTAPC | -0.1564 | -1.6457 | NS | -0.2501 | -5.4841 | Yes | -0.1495 | -1.5710 | NS |
| EAPC | -0.0173 | -0.1803 | NS | -0.0778 | -0.8110 | NS | -0.1241 | -2.3472 | Yes |

Yes = Significant at 0.05 level
NS = Not Significan

The analysis of the above table reveals the following:

1. There is a negative significant relationship between residence adjustment problems of girls and their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.
2. There is no significant relationship between food adjustment problems of girls and their academic achievement in Kannada, English, Hindi, Mathematics, Science and Social Studies. However, the relationship of food adjustment problems of girls with total academic achievement is negatively significant.
3. There is a negative significant relationship between peer-group adjustment problems of girls and their academic achievement in Kannada, English, Hindi, Mathematics, Social Studies and total academic achievement. However, the relationship of peer-group adjustment problems of girls with achievement in science is not significant.
4. There is no significant relationship between curriculum adjustment problems of girls and their academic achievement in Kannada, English, Hindi, Mathematics, Social Studies and total academic achievement. However, the relationship of curriculum adjustment problems with achievement in Science is negatively significant.
5. There is no significant relationship between co-curriculum adjustment problems of girls and their academic achievement in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.
6. There is a negative significant relationship between classroom teaching adjustment problems of girls and their academic achievement in Kannada, Hindi, Mathematics and Social Studies. However, the relationship of classroom teaching adjustment problems with achievement in English, Science and total academic achievement is not significant.
7. There is a negative significant relationship between evaluation adjustment problems of girls and their academic achievement in English and total academic achievement. However, the relationship of evaluation adjustment problems of girls with achievement in Kannada, Hindi, Mathematics, Science and Social Studies is not significant.

## STATISTICAL ANALYSIS

In pursuance of the General Objective, the Pearson's Product-Moment Coefficient of Correlation technique was used to find out the relationship between predictor variables and criterion variable. Further, the obtained 'r' values were tested for significance using 't' test.

## FINDINGS

1. The 'residence adjustment problems' of girls have significant relationship with Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.
2. The 'food adjustment problems' of girls have significant relationship with total academic achievement.
3. The 'peer-group adjustment problems' of girls have significant relationship with Kannada, English, Hindi, Mathematics, Social Studies and total academic achievement.
4. The 'curriculum adjustment problems' of girls have significant relationship with Science.
5. The 'classroom teaching adjustment problems' of girls have significant relationship with Kannada, Hindi, Mathematics and Social Studies.
6. The 'evaluation adjustment problems' of girls have significant relationship with English, and total academic achievement.

## DISCUSSION AND CONCLUSION

From the results obtained in the present study, it was found that there is a negative and significant relationship as well as a positive and significant relationship between adjustment problems and academic achievement. The negative relationship among certain variables is due to the correlation between adjustment problems scores and achievement scores. Study conducted by Semler (1980) reported a linear relationship between adjustment scores and achievement scores. This may be due to the correlation between adjustment and achievement scores directly. Sondefur, et al. Peter Ponraj (1993) reported girls from both the Hindu and Christian community were better adjusted than the boys at the three levels of adjustment at home. Girls were better adjusted than boys at the three levels of adjustment at school, Talawar(2002) There is a relationship between 8th, 9th and 10th Standard students and their residence adjustment problems being experienced. There is a relationship between 8th, 9th and 10th Standard students and their of food adjustment problems being experienced.

Based on the discussion of findings of the study the following conclusions could be drawn.

1. The 'resident adjustment problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, Hindi, Science, Social Studies and total academic achievement.

2. The 'food adjustment problems' of students studying in MDRSs have negative and no significant relationship with academic achievement in all the school subjects.
3. The 'peer-group adjustment problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, English, Hindi, Science, Social Studies and total academic achievements.
4. The 'curriculum adjustment problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, English, Hindi, Mathematics, Science, and Social Studies. However, its relationship with total academic achievement is not significant.
5. The 'co-curriculum adjustment problems' of students studying in MDRSs have negative and not significant relationship with academic achievement of students in all the school subjects.
6. The 'classroom teaching problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.
7. The 'evaluation adjustment problems' of students studying in MDRSs have negative and significant relationship with academic achievement of students in Kannada, English, Hindi, Mathematics, Science, Social Studies and total academic achievement.

## REFERENCES


- **Cattell R. B.** 1944a. A Note on Correlation Clusters and Cluster Search Methods. Psychometric, 9, pp. 169-184.
- **Chopra S. L.** 1982. A Study of Some Non-Intellectual Correlates of Academic Achievement. Unpublished D.Litt. Thesis, Luc. Univ.
- **Garrett H.E.** and **Woodworth, R.S.** 1981. Statistics in Education and Psychology. Bombay : Vakils, Feffer and Simons Pvt. Ltd.
- **George A. P. et al.,** 1987. Needs, Problems and Adjustment of Sainik School Students. Journal of the Institute of Educational Research. Vol.11(1), Jan. 18-20.
- **Joshi A.** 1990. Relationship of Personality and Adjustment with Achievement Through Instructional Strategy. Indian Journal of Psychometry and Education. Vol.21(2), 87-92.
- **Jumnal B. M.** 1991. Adjustment Problems of Students of Navodaya Vidyalayas in Karnataka in Relation to the Organizational Climate of the School - A Study. Unpublished M.Phi. Thesis, Shiv. Univ.


■■

- From Continued on Page No. 7

The students of 9th standard with low and high attitude have different logical thinking operation in mathematics i.e. problem solving; The boy and girl students of 9th standard with low and high attitude have different logical thinking operation in mathematics i.e. problem solving. The boy students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the boy students of low attitude. The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the boy students of low attitude; The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the boy students of low attitude; The boy students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the girl students of low attitude; The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the boy students of high attitude; The girl students of high attitude have significant higher mean of logical thinking operation in mathematics i.e. problem solving as compared to the girl students of high attitude. .

## REFERENCES


- **Akpan A. A. :** A path-analysis model of mathematics problem-solving for secondary school students. Indian Educational Review, Vol. 26(2).
- **Antonia N. et.al.** (1997) Problem Solving in Physics, towards a Met cognitively Development Approach, (Abstract through Internet)
- **Kagan D. M. :** (1992), 'Professional growth among pre-service and beginning teachers', Review of Educational Research 62 (2), 129- 169.
- **Aiken L.R.**(1991) Attitude towards Mathematics. In Lewy, A.(Ed.) The International Encyclopedia of Curriculum. Pergamon Press New York.
- **Borasi R. & Rose B.** (1989). Journal writing and mathematics instruction. Educational Studies in Mathematics, 20, 347-365.


■■

# INFLUENCE OF SELF-CONCEPT ON THE SCIENTIFIC ATTITUDE AND ACHIEVEMENT IN SCIENCE OF 9TH CLASS STUDENTS

✍ **Dr.S.Ravi,** Faculty Member, I.A.S.E., S.V.University, Tirupati, Chittoor (D), Andhra Pradesh, India-517507 ,

## INTRODUCTION

The term self-concept was originally proposed by "Lecky" in 1945 and adopted by "Rogers" in 1951 as the key stone of his system of non-directive counseling. This concept is of major importance in education, particularly in the more personal aspects such as motivation and adjustment which, in then final analysis, are the foundations up on which school and doubt of school success must ultimately rest.

The self-concept is best conceived as a system of attitudes towards one self. All attitudes are import determinants of behaviour, but attitudes concerning the self are much more basic than those in which the individual is less ego-involved and are therefore, correspondingly more potent in deferring behaviour.

A person's self is the sum of all that he possesses. This self includes among other things a system of ideas, attitudes, values and commitments. The self is a person's total subjective environment. It is the distinctive center of experience and significance. The self constitutes a persons inner world as distinguished from the outer world consisting of all other people and things.

Since the self is differentiated as a result of the experience one undergoes if follows that underlying the development of the self-concept are the individual assets and liabilities in relation to the various components of his environment.

According to Lecky, preserving one's perception of one's self intact is the prime motive in all behaviour, self consistency is necessary to maintain (or) preserve the identity of the self. Even a person who believes that his "self" is weak, bad or stupid will adhere to all perceptions that bolster this picture of himself and refuse to see (or) accept any perception that suggests he is good, strong and clever.

This theory resembles "Sullivan's concept like "Me" and the "Not-me".According to Sullivan, the "Me" concept may be distressing or even humiliating but the self must hold to everything that reinforces it and will call "Not-me" any thing that doesn't fit into a consistent picture of the self.

Lecky proceeded to apply his theory of self consistency to learning difficulties. According to him, the child not seen as bright by his parents, come to see himself as stupid and incapable learner. He holds that concept in himself when he goes to school. In school such a child may be free to explore and follow to where his curiosity leads and to learn new things.

According to dictionary / the mental image or perception that one has of one self, "According to medical", an individual's assessment of his or her status on a single trait or on many human dimensions using societal or personal norms as criteria".

The self-concept or self-identity is the mental and conceptual awareness and persistent regard that sentient beings hold with regard their own being.

Components of a being's self-concept include physical, psychological, and social attributes; and can be influenced by its attitudes, habits, beliefs and ideas. These components and attributes can each be condensed to the general concepts of self-image and the self-esteem.

Students enrolled in a selected admissions program, in which there are a limited number of student positions available, were assessed for academic self-concept using the dimensions of self-concept upon entry into the programme. This study was performed to explore successful completion of an academic program and the impact of self-concept scores on academic achievement and professional leadership.

## SCIENTIFIC ATTITUDE

Scientific Attitude is the most important outcome of science teaching, through some educationalist view that scientific attitude as a by product of teaching science, yet a majority of educationalists consider it to be major product or the 'aim' of science teaching.

Thurston has used the concept of attitude as the sum total of man's inclinations and feelings, prejudice or bias, pre-conceived notions, ideas threats and convictions about any specific topic.

Attitudes are developed, they are not inborn. They can be changed or modified over the time. These

modifications of attitudes are based on some of the determinants like culture, tensions, needs, emotions, experiences, provisions etc.

Such an attitude is also noticed in the field of science, which we consider as 'Scientific attitude'. Here, the scientific attitude means ones inclination or readiness of mind towards the pursuit of scientific knowledge. This scientific attitude sometimes interchanged with scientific temper. This temperament is a tendency of an individual who is very much inclined to learn scientific concepts.

Scientific attitude is the part of the attitude. And this is the second value monopolized by science, which is transferable. These attitudes of a scientist involve critical observation, open-mindedness, suspended judgements, free from superstition and false belief etc., which will be discussed in detail later on. The attitude once developed in the students proves useful in later life of the child.

Apart from this the teaching of science is based on sound psychological footing. The principle of activity is the main basis of the teaching of science and satisfies the instincts of curiosity, creativeness, self-assertion, and self-expression etc. of the pupils.

Scientific attitude refers to an individual's outlook towards life. It means a willingness to adopt scientific approaches and procedures for resolving issues, condition, and a stabilized mental set, which expresses itself in a tendency to react to any member of a class of stimuli in the same general way.

Scientific attitude predisposes a person to engage in responsible action after weighing the possible consequences of alternative options, using rational arguments based on evidence.

## REVIEW OF LITERATURE

Mac Aulay, Dolina (1990) reported that there is a positive significant relation between academic achievement and home environment.

Mc Robbie and Fraser (1993) found that there existed a positive relation between academic achievement and home environment.

Martin (1995) concluded that there was a significant relationship between academic achievement and home environment.

Walf Richard (1996), Marjoribanks (1996), Walberg and Paik (1997) reported that there existed positive significant relationship between academic achievement and home environment.

Basantha and Mukhopadyaya (2001) indicated that the achievement of secondary school rural students was significantly related to their home environment. Both home environment and school environment were significantly related to each other.

Saritha (2006) studied the differences in Psychosocial problems of adolescent children of working and non-working mothers (N=415). She reported that intensity of psychosocial problems was found to be lesser in the adolescents of working mothers as compared to those with non-working mothers in relation to their level of self-concept.

Gordan Darlene (2007) found that the students having good high self-concept possessed good achievement.

Kumar (2007) in his study concluded that there existed a significant positive correlation between academic performance and the level of self-concept.

Anuradha Joshi (2008) found that the personality of class IX students effected the self-concept. The extroverts were found to benefit significantly more through the developed instructional strategy, as compared to the introverts.

Knapp et al. (2008) found that the level of self-concept on reading comprehension and attitudes toward reading were significantly improved when readers participated in a 10 week apprenticeship in reading to enable the students to accomplish the authentic task of reading a personally interesting book beyond his/her independent capabilities.

Krishna Reddy, D (2008) is concluded that the Self-Concepts like, 1. Abilities (SC2), 2. Self confidence (SC3), 3. Self Acceptance (SC4) 4. Worthiness (SC5), 5. Present, Past and Future (SC6), 6. Biliefs and convictions (SC7), 7. Feeling of shame and Guilt (SC8). Emotional maturity (SC10) and self-concepts total SCT have significant influence on the achievement of 10th class students in mathematics.

Venden Hurl et al. (2008) showed that the self-concept of medical students was correlated with their level in academic achievement.

Corlos and Rodrgvez (2009) found that high students academic self - concept and unambiguous out come expectations encourage critical thinking, reflective approaches and academic performance.

Dickinson et al. (2009) found from a study which examined the relationship between study time and test scores that time spent organizing had a stronger relationship with course test scores (N = 113 undergraduates) in relation to their level of self-concept.

Padmini (2010) investigated that Self-Concept has significant influence on the scholastic achievement of IX class students in biological sciences.

Philias Oulatunde (2010) showed that students of secondary schools have good self - concept of themselves in performing well in mathematics.

## SCOPE OF THE STUDY

The main intention of the study is to find the Scientific

attitude and achievement in science of 9th class students in relation with self-concept.

## OBJECTIVES OF THE STUDY

1 To establish the relationship between Self-Concept and scientific attitude of 9th class students.

2. To establish the relationship between Self-Concept and achievement in science of 9th class students.

## HYPOTHESIS OF THE STUDY

1. There would not be significant influence of Self-Concept on the scientific attitude of 9th class students.
2. There would not be significant influence of Self-Concept on the achievement in science of the 9th class students.

## TOOLS FOR THE STUDY

**1. Scientific attitude questionnaire :** The scientific attitude of the subjects was assessed by using scientific attitude questionnaire; the questionnaire is developed by investigator. It consists of 62 items. Each item has five options. The items are scored with the help of scoring key. Each statement was arranged on a five - point scale, Strongly Agree (SA), Agree (A), Doubtful (D), Disagree (DA) and Strongly Disagree (SDA). The total scores in each factor and marked them on the right corner of the answer sheet.

**2.** The Science achievement test is prepared and standardized by the investigator. Pilot study is conducted by the investigator with 120 items . The final study of Science achievement test consist 100 items. This procedure of item analysis is adopted from the prescribed standardized procedure, for construction and use of tests for class room examinations.

**3. Self - Concept Scale (SCS) :** To measure the self - concept of the pupils, self - concept scale (SCS) developed by Dr. (Miss) Mukta Rani Rastogi (1974) was adopted and it is more suitable for the purpose of present study.

## SAMPLE SELECTION

The sample for the investigation consisted of 1200 9th class students. The investigator form into two groups based on the 8th class annual examination marks. The stratified random sampling was applied in three stages. In the first stage locality of the school i.e.Rural and Urban, in second stage management of the school i.e.Government, Aided and Private school and divided third stsge gender of the students i.e. Boys and Girls. In total 600 Boys and 600 Girls are included in this study. It is a 2x3x2 factorial design with 1200 sample subjects.

### Results and discussions

### Influence of self - concepts on scientific attitude and achievement in science

The self-concept scale (SCS), developed by Dr (Miss) Muktha Rani Rastogi (1974), was adopted from Arunachalam Reddy, M. (2012) to find the influence of self - concepts on the scientific attitude and achievement in science of the 9th class students. This self - concept scale consists of ten areas. They are:

1. SCA Health and Sex appropriateness (6 Items)
2. SCB Abilities (8 Items)
3. SCE Self-confidence (5 Items)
4. SCF Self-acceptance (4 Items)
5. SCH Worthiness (7 Items)
6. SCP Present, Past and Future (5 Items)
7. SCS1 Beliefs and Convictions (3 Items)
8. SCS2 Feeling of Shame and Guilt (5 Items)
9. SCS3 Sociability (4 Items)
10. SCS4 Emotional Maturity (4 Items)
11. SCT Self-Concept Total

A total of 51 items are posed for the 9th class students to respond for their self - concepts. A five - point scale was used to get the responses from the 9th class students. The five points are : 1. Strongly Agree; 2.Agree; 3. Undecided; 4. Disagree; 5. Strongly Disagree.

## INFLUENCE OF SELF - CONCEPTS ON SCIENTIFIC ATTITUDE

One - way analysis of variance is applied to study the influence of self - concepts on scientific attitude. The total self - concepts score and the scores of different areas of the self - concepts scale are divided into three groups on the basis of quartiles. Group - I represents the scores up to Q1; Group - II represents the scores above Q1 and up to Q3; and Group - III represents the scores above Q3. The corresponding scientific attitude scores of three groups were analyzed. The mean values of scientific attitude scores for each self - concepts and self - concept total score were tested for significance by employing one - way analysis of variance technique. The following hypothesis is formed.

## HYPOTHESIS - 1

There is no significant effect of self - concepts on scientific attitude of the 9th class students.

By employing one - way analysis of variance technique, the above hypothesis was tested. The results are presented in **Table - 1.**

It is evident from **Table - 1** that the computed value 'F' for Self - Concept Total (SCT) is above the level of the critical value of 'F' (4.630) at 0.01 level of significance. Hence Hypothesis - 1 is rejected for Self-Concept Total (SCT) at 0.01 level of significance. Self - Confidence (SCE), Feeling of Shame and Guilt (SCS2) and Emotional Maturity (SCS4) are above the level of the critical value of 'F' (2.99) at 0.05 level of significance. Hence Hypothesis - 1 is rejected for Self - Confidence (SCE), Feeling of Shame and Guilt (SCS2) and Emotional Maturity (SCS4) at 0.05 level

of significance. The remaining areas of self - concepts score on all the areas of self - concepts are also studied. It is observed that the computed values of 'F' for these areas are far below the critical value of 'F' (2.99) at 0.05 level of significance. Hence Hypothesis - 1 is accepted.

**Table - 1 : Impact of self - concepts on scientific attitude**

| S.No. | Self - concept | No. of Observations | | | Mean | | | SD-Values | | | F-Values |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | I | II | III | I | II | III | I | II | III | |
| 1. | Health and Sex appropriateness | 388 | 592 | 220 | 195.75 | 197.53 | 201.98 | 39.80 | 37.72 | 36.48 | 1.885@ |
| 2. | Abilities | 446 | 394 | 360 | 198.68 | 195.10 | 199.56 | 39.13 | 37.98 | 37.27 | 1.475@ |
| 3. | Self-confidence | 478 | 477 | 245 | 197.28 | 195.23 | 203.67 | 36.78 | 39.67 | 37.60 | 4.031* |
| 4. | Self-acceptance | 408 | 526 | 266 | 197.84 | 199.53 | 194.17 | 38.58 | 37.96 | 38.03 | 1.743@ |
| 5. | Worthiness | 392 | 507 | 301 | 200.47 | 196.99 | 195.55 | 36.51 | 37.59 | 41.24 | 1.586@ |
| 6. | Present, Past and Future | 473 | 480 | 247 | 200.66 | 195.28 | 197.06 | 38.38 | 38.58 | 36.94 | 2.417@ |
| 7. | Beliefs and Convictions | 417 | 503 | 280 | 197.13 | 198.74 | 196.97 | 34.46 | 42.46 | 35.49 | 0.278@ |
| 8. | Feeling of Shame and Guilt | 455 | 417 | 328 | 196.95 | 195.26 | 202.09 | 36.86 | 37.47 | 40.67 | 3.097* |
| 9. | Sociability | 555 | 443 | 202 | 195.72 | 200.58 | 197.24 | 39.96 | 37.13 | 35.35 | 2.017@ |
| 10. | Emotional Maturity | 434 | 530 | 236 | 194.61 | 198.30 | 202.38 | 38.39 | 38.82 | 36.09 | 3.260* |
| 11. | Self-Concept Total | 391 | 466 | 343 | 201.14 | 193.56 | 199.64 | 37.70 | 38.61 | 37.84 | 4.772** |

** Indicates significant at 0.01 level * Indicates significant at 0.05 level @ Indicates not significant at 0.05 level

It is implied that the self - concepts like Self - Confidence (SCE) Feeling of Shame and Guilt (SCS2), Emotional Maturity (SCS4) and Self-Concept Total (SCT) have significant influence on scientific attitude of 9th class students. But the other areas of self - concept scale score have no significant influence on scientific attitude of 9th class students.

The bar diagram for the mean scientific attitude scores for the 'Self - Concept Total' (SCT) is shown in **Figure - 1.**

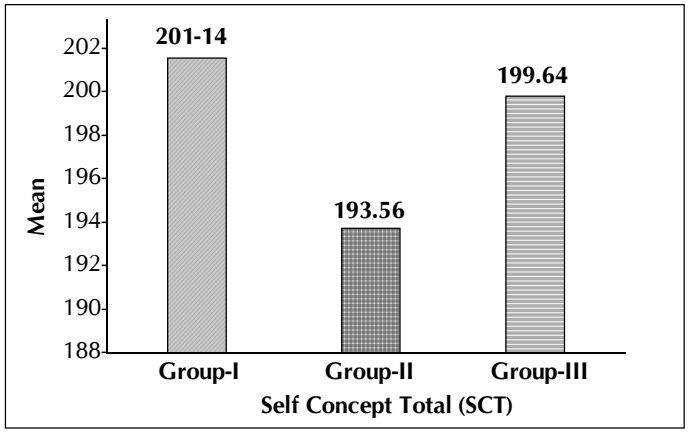



**Figure - 1: Bar diagram for the mean scientific attitude scores for the 'Self-Concept Total' (SCT)**

## INFLUENCE OF SELF - CONCEPTS ON ACHIEVEMENT IN SCIENCE

One - way analysis of variance is applied to study the influence of self - concepts on achievement in science. The total self - concepts score and the scores of different areas of the self - concepts scale are divided into three groups on the basis of quartiles. Group - I represents the scores up to Q1; Group - II represents the scores above Q1 and up to Q3; and Group - III represents the scores above Q3. The corresponding achievement in science scores of three groups were analyzed. The mean values of achievement in science scores for each self - concepts and self - concept total score were tested for significance by employing one - way analysis of variance technique. The following hypothesis is formed.

## HYPOTHESIS - 2

There is no significant effect of self - concepts on achievement in science of the 9th class students.

By employing one - way analysis of variance technique, the above hypothesis was tested. The results are presented in **Table - 2**

It is evident from **Table - 2** that the computed value 'F' for Health and Sex appropriateness (SCA) is above the level of the critical value of 'F' (2.99) at 0.05 level of significance. Hence Hypothesis -2 is rejected for Health and Sex appropriateness (SCA) at 0.05 level of significance. The remaining areas of self - concepts including the total score on all the areas of self - concepts are also studied. It is observed that the computed values of 'F' for these areas are far below the critical value of 'F' (2.99) at 0.05 level of significance. Hence Hypothesis - 2 is accepted.

**Table - 1 : Impact of self - concepts on scientific attitude**

| S.No. | Self - concept | No. of Observations | | | Mean | | | SD-Values | | | F-Values |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | I | II | III | I | II | III | I | II | III | |
| 1. | Health and Sex appropriateness | 388 | 592 | 220 | 64.85 | 62.93 | 60.66 | 17.99 | 17.27 | 17.50 | 4.090* |
| 2. | Abilities446 | 394 | 360 | 62.60 | 63.94 | 62.90 | 17.77 | 16.47 | 18.54 | 0.647@ | |
| 3. | Self-confidence | 478 | 477 | 245 | 64.10 | 62.98 | 61.55 | 16.62 | 17.58 | 19.30 | 1.735@ |
| 4. | Self-acceptance | 408 | 526 | 266 | 63.37 | 63.10 | 62.85 | 17.79 | 17.54 | 17.44 | 0.070@ |
| 5. | Worthiness | 392 | 507 | 301 | 62.20 | 63.51 | 63.70 | 17.49 | 18.05 | 16.94 | 0.823@ |
| 6. | Present, Past and Future | 473 | 480 | 247 | 63.69 | 62.60 | 63.11 | 17.17 | 17.91 | 17.80 | 0.450@ |
| 7. | Beliefs and Convictions | 417 | 503 | 280 | 62.57 | 63.09 | 64.06 | 17.12 | 17.77 | 17.99 | 0.605@ |
| 8. | Feeling of Shame and Guilt | 455 | 417 | 328 | 63.99 | 63.17 | 61.89 | 17.16 | 18.21 | 17.35 | 1.365@ |
| 9. | Sociability | 555 | 443 | 202 | 63.89 | 62.36 | 62.74 | 16.72 | 18.28 | 18.37 | 0.992@ |
| 10. | Emotional Maturity | 434 | 530 | 236 | 62.71 | 62.61 | 65.08 | 16.94 | 18.06 | 17.64 | 1.795@ |
| 11. | Self-Concept Total | 391 | 466 | 343 | 63.95 | 62.92 | 62.50 | 17.17 | 17.41 | 18.31 | 0.674@ |

** Indicates significant at 0.01 level * Indicates significant at 0.05 level @ Indicates not significant at 0.05 level

It is implied that the self - concepts like 'Health and Sex appropriateness' (SCA) has significant influence on achievement in science of 9th class students. But the other areas of self - concept scale and self - concept total score have no significant influence on achievement in science of 9th class students.

The bar diagram for the mean achievement in science scores for the 'Health and Sex appropriateness, (SCA) is shown in **Figure - 2.**

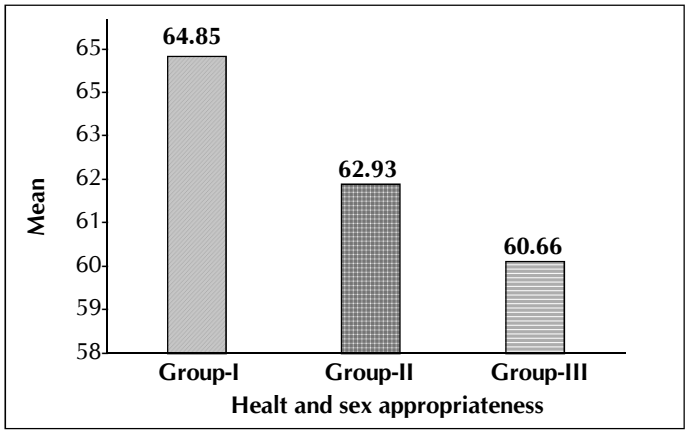



**Figure - 2 : Bar diagram for the mean achievement in science scores for the 'Health and Sex appropriateness' (SCA)**

## MAJOR FINDINGS AND CONCLUSIONS OF THE STUDY

There is significant influence of Self - Confidence (SCE), Feeling of Shame and Guilt (SCS2) and Emotional Maturity (SCS4) at 0.05 level and Self-Concept total (SCT) at 0.01 level on the scientific attitude and Health and Sex appropriateness (SCA) at 0.05 level on the achievement in science of 9th class students.

Self - Confidence (SCE), Feelings of Shame and Guilt (SCS2) Emotional Maturity (SCS4) and Self-Concept Total (SCT) have significant influence on the scientific attitude and Health and Sex appropriateness (SCA) on the achievement in science of 9th class students

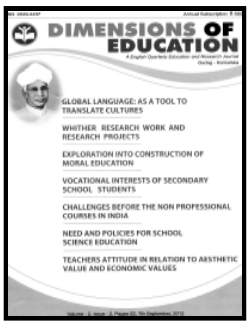
## REFERENCES

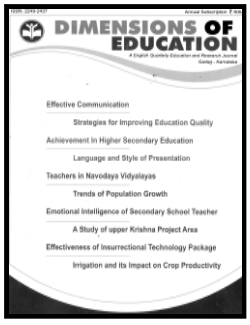

- **Basha S.N.** (2007): "A study of scientific attitude of intermediate students", M.Ed. dissertation, S.V.University, Tirupati.
- **Corlos and Rodrgvez** (2009): "The impact of academic self concept, exportations and the choice of learning strategy on academic achievement" Higher education Research & Development, Vol. 28, Issue. 5 Pages: 523 - 539.
- **Flick** (1993) quoted in Ranganath (2010): "A study of scientific attitude of degree students", M.Ed. dissertation, S.V.University, Tirupati.
- **Grady Venville and Vaille Dawson** (2006) quoted in Ranganath (2010): "A study of scientific attitude of degree students", M.Ed. dissertation, S.V.University, Tirupati.
- **Janaki Ram** (2006): "A study of scientific attitude of VIII class students", M.Ed. dissertation, S.V.University, Tirupati.
- **Kothari Commission report** (1966) quoted in Ranganath (2010): "A study of scientific attitude of degree students", M.Ed. dissertation, S.V.University, Tirupati.
- **Mukta Rani Rastogi** (1975): "Manual for self concept scale" published in Agra Psychological Research ; Tiwari Kothi Balagani, Agra: 282004, India.
- **Nagarjuna** (2002): "A study of scientific attitude of IX class students", M.Ed. dissertation, S.V.University, Tirupati.


- Continued on Page No. 50

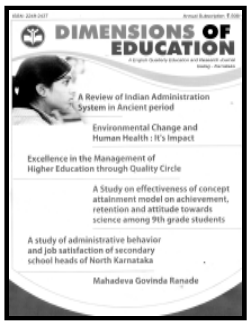
# Dimensions of Education

*A Quarterly Education and Research Journal*








## SUBSCRIPTIONS

| | | |
|---|---|---|
| **Annual Subscription** | **₹ 500/-** | ☐ |
| **3 Year Subscription** | **₹1500/-** | ☐ |
| **Life Subscription** | **₹5000/-** | ☐ |

*Subscribers may kindly make the payment through* ***Demand Drafts*** *only*

*DD must be infavour of :*

**Vidyanidhi Prakashana®**

**Payable at Gadag.**

*Send to address :*

**Vidyanidhi Prakashana®**
Station Road, Near Mahendrakar Circle,
GADAG-582 101 Dist. : Gadag
Karnataka State (India)
Phone : 08372 - 237527, 277527
email : dimensionsofedn@gmail.com

# Yes, I wish to subscribe to **Dimensions of Education**

Date :

Name :

Designation :

Institution :

Address :

Phone Cell Nos.:

Fax No. :

e-mail :

Magazine to be sent to :

D.D. No. :

Dated :

Amount :

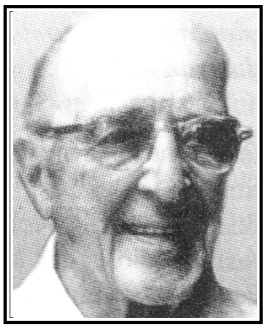
Drawn on :

*Institution's* *Signature*

 ISSN : 2249-2437

# CARL ROGERS (1902 TO 1987)

✍ **Dr. N. B. Kongawad,** Principal, J.S.S. Sri Manjunatheswar College of Education, Dharwad



**"I see the facilitation of learning as the aim of education, the way in which we develop the learning man, the way in which we can learn to live as individuals in the process. I see the facilitation of learning as the function which may hold constructive, tentative, changing, process answers to some of the deepest perplexities which beset man today".**

Carl Rogers, one of most prominent American psychologists, believed that a student has interests and enthusiasms, and the task of the teacher was to free and to aid these interests and enthusiasms. Born in a farmer's family in 1902, he chose agriculture as his undergraduate major at the University of Wisconsin. Subsequently, he dicided that his future lay in religious work and, in 1924. he went to the Union Theological Seminary where, after two years, he felt that he could not work in a field where he was required to believe in a specific religious doctrine.

Later, he joined the Teachers College, Columbia University, where he was strongly influenced by William H. Kilpatrick's courses in the philosophy of education. It is here that he came in contact with John Dewey's emphasis on experience as the basis of learning. After some time, he joined Rochester Child Guidance Clinic as a clinical psychologist and became immersed in psychological services. In the process, he realized that his clients had a better knowledge than himself about what was important and the direction to take after receiving therapy.

In 1940, Roggers moved to Ohio State University where he made his teaching more experiential, requiring the students in his courses to determine the direction of the course and its content. After joining the University of Chicago in 1945, he published Client-Centred Therapy and in one of its chapters on Student-Centred Teaching, he discussed the evolution of his thinking about teaching emphasizing the importance of attitudes rather than techniques. He asserted, " We cannot teach another person directly ; we can only facilitate his learning.'' In his view, a teacher sets the mood, clarifying the purposes to the students and serving as a flexible resource for them.

After serving the University of Chicago for 12 years, Rogers returned to the University of Wisconsin and, in 1963, when he left that university, he also left the academic field. In 1969, he wrote a book **Freedom to Learn,** which reflects his broad interests in education. In this book, which was revised and published as **Freedom to Learn** for the 80s he stressed that, because of the continually changing atmosphere in which we live, we are :

*".... faced with an entirely new situation in education where the goal of education, if we are to survive, is the facilitation of change and learning. The only man who is educated is the man who has learned how to adapt and change; the man who has realized that no knowledge is secure, that only the process of seeking knowledge gives a basis for security. Changingness, (sic) a reliance on process rather than upon static knowledge, is the only thing that makes any sense as a goal for education in the modern world''.*

## DESCRIBING HIS GOAL, ROGERS SAID

*"I see the facilitation of learning as the aim of education, the way in which we develop the learning man, the way in which we can learn to live as individuals in the process. I see the facilitation of learning as the function which may hold constructive, tentative, changing, process answers to some of the deepest perplexities which beset man today.''*

## ON HOW TO ACHIEVE THIS GOAL, ROGERS CLARIFIED

*" We know..... that the initiation of such learning rests not upon the teaching skills of the leader, not upon his scholarly knowledge of the field, not upon his curricular planning, not upon his use of audiovisual aids, not upon the programmed leaning he utilizers, not upon his lectures and presentations, not upon an abundance of books, although each of these might at one time or another be utilized as an important resource. No, the facilitation of significant learning rests upon certain attitudinal qualities which exist in the personal relationship between the facilitator and the learner''.*

What are these attitudinal qualities that facilitate learning ? The first of these is realness about which Rogers said :

*" Perhaps the most basic of these essential attitudes is realness or genuineness. When the facilitator is a real person being what he is, entering into a relationship with the learner without presenting a front or facade, he is much more likely to be effective. This means that the feelings which he is experiencing are available to him, available to his awareness, that he is able to live these feelings, be them, and able to communicate them if appropriate. It means that he comes into a direct personal encounter with the learner, meeting him on a person-to-person basis. It means that he is being himself, not denying himself.''*

The second group of these attitudes includes qualities like prizing, acceptance and truth. About the third attitudinal quality, empathic understanding, Rogers observed :

*"A further element which establishes a climate for self initiated experiential learning is empathic understanding. When the teacher has the ability to understand the student's reaction form the inside, has a sensitive awareness of the way the process of education and learning seems to the student, then again the likelihood of significant learning is increased''.*

Rogers, of course, did not think these attitudes are easy to achieve when he said :

*"It is natural that we do not always have the attitudes I have been describing. Some teachers raise the question, 'But what if I am not feeling empathetic, do not, at this moment, prize or accept or like my students ? What then? My response is that realness is the most important of the attitudes mentioned. It is not accidental that this attitude was described first. So if one has little understanding of the student's inner world, and a dislike for his students or their behaviour, it is almost certainly more constructive to be real than to be pseudo-empathic, or to put on a facade of caring.''*

## ROGERS ENUNCIATED THE FOLLOWING PRINCIPLES OF LEARNING

- Human beings have a natural potential for learning.
- Significant learning takes place when the subject matter is perceived by the student as having relevance for his her own purpose, when the individual has a goal he she wishes to achieve and sees the material presented to him/her as relevant to the goal, learning takes place with great rapidity.
- Learning which involves a change in self-organization-in the perception of oneself-is threatening and tends to be resisted.
- Those learnings (sic) which are threatening to the self are more easily perceived and assimilated when external threats are at a minimum.
- When the threat to the self is low, experience can be perceived in differentiated fashion and learning can proceed.
- Much significant learning is acquired through doing.
- Learning is fecilitated when the student responsibly participates in the learning process.

Self-initiated learning which involves the whole person of the learner-feeling as well as intellect-is the most lasting and pervasive.

- Independence, creativity and self-reliance are all facilitated when self-criticism and self-evaluation are basic and evaluation by others is of secondary importance.

The most socially useful learning in the modern world is the learning of the process of learning, a continuing openness to experience and to incorporate into oneself the process of change.

■■

- From Continued on Page No. 47


- **National Policy on Education** (1986) quoted in Padma latha (2002): "A study of scientific attitude of B.Ed. students", M.Ed. dissertation, S.V.University, Tirupati.
- **Padma latha** (2002): "A study of scientific attitude of B.Ed. students", M.Ed. dissertation, S.V.University, Tirupati.
- **Philias Olatunde** (2010): "Students Self Concept and Mathematics achievement in some secondary schools in Southwestern Nigeria". European Journal of Social sciences, Vol . 13, No. 1.
- **Pavan** (2006) : "A study of scientific attitude of IX class students", M.Ed. dissertation, S.V.University, Tirupati.
- **Prasanth** (2003): "A study of scientific attitude of intermediate students", M.Ed. dissertation, S.V.University, Tirupati.
- **Ranganath** (2010): "A study of scientific attitude of degree students", M.Ed. dissertation, S.V.University, Tirupati.
- **Rao C.N.R. quoted in Ranganath** (2010): "A study of scientific attitude of degree students", M.Ed. dissertation, S.V.University, Tirupati.
- **Taradevi** (1956) quoted in Padma latha (2002): "A study of scientific attitude of B.Ed. students", M.Ed. dissertation, S.V.University, Tirupati.
- **Vali** (2005): "A study of scientific attitude of primary school teachers", M.Ed. dissertation, S.V.University, Tirupati.
- **Vani** (2008): "A study of scientific attitude of primary school teachers", M.Ed. dissertation, S.V.University, Tirupati.


■■