



DIMENSIONS OF EDUCATION

A English Quarterly Education and Research Journal

Gadag - Karnataka



Integration of ICT in Teacher Education

Digital Panchayat

Digital Divide : Bridging the Gap

**Knowledge of Environmental Studies among
Tribal Students of Fifth Standard**

Teaching of Computers Education in Belgaum

Spatial analysis of Large Scale industries in Haveri

**Interaction effect of Gender (Boys and Girls)
& Caste (SC/ST, OBC and GM) on logical thinking
operation I.E., observation**

**Effect of Mental Health on Academic
Achievement of Secondary School Students**

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EFFECTIVE TEACHING THROUGH FEEDBACK THE ART OF TEACHING

Any enduring behavioral change that cannot be ascribed to non-volitional activity but has been deliberately caused by systematic, well-planned instructional schedule within a time frame could be termed Learning and process of effecting such a change upon an individual is termed teaching. Unlike a host of behavioral changes that could be attributed to incidental and informal learning, classroom learning is said to be more disciplined, goal-directed and time-bound. It is the duty of a teacher to simplify and transmit knowledge in assimilate form to a heterogeneous group of learners. She needs to individualize instruction, make it meaningful to the majority of learners, attend to the needs of the mediocre and slow-learners, assess them periodically and prepare them for the terminal examination –all within the academic year.

Generally teachers are meticulous in planning their lessons and strive to deliver them to the best of their capacity. They are sufficiently prepared to clarify doubts and also answer the bewildering question in the class. This preparedness and earnestness provides satisfaction to the students and self-fulfillment to the teachers. After all he is given a limited time to teach an unlimited content, not always under congenial conditions. At least, during the initial days of his/her career a teacher tends to be painstaking in his/her preparation so as to earn a good name among students. Every succeeding year s/he experiences a gradual increases in mastery of content and pedagogy. "Experience equals the capacity to teach, multiplied by the desire to teach, multiplied by the years of teaching. A zero somewhere in that equation would give us consequential results".

- Dr. N. B. Kongawad
Editor

INTEGRATION OF ICT IN TEACHER EDUCATION

✉ **Ramesh C. Yanamashetti**, Lecturer in Education, B.V.V.S College of Education, Bagalkot-587101. Karnataka

ABSTRACT

Teaching is becoming one of the most challenging professions in our society where knowledge is expanding rapidly and modern technologies are demanding teachers to learn how to use these technologies in their teaching. While new technologies increase teachers' training needs, they also offer part of the solution. Information and communication technology (ICT) can provide more flexible and effective ways for professional development for teachers, improve pre- and in-service teacher training, and connect teachers to the global teacher community.

Globally, educational systems are under great pressure to adopt innovative methodologies and to integrate new Information and Communication Technologies (NICTs) in the teaching and learning process, to prepare students with the knowledge and skills they need in the 21st century.

Use of ICT within teacher-training programs around the world is being approached in a number of ways with varying degrees of success. These approaches were subsequently described,

INTRODUCTION

Globalization and technological change - processes that have accelerated in tandem over the past fifteen years - have created a new global economy "powered by technology, fueled by information and driven by knowledge."¹ The emergence of this new global economy has serious implications for the nature and purpose of educational institutions. As the half-life of information continues to shrink and access to information continues to grow exponentially, schools cannot remain mere venues for the transmission of a prescribed set of information from teacher to student over a fixed period of time. Rather, schools must promote "learning to learn," : i.e., the acquisition of knowledge and skills that make possible continuous learning over the lifetime.² "The illiterate of the 21st century," according to futurist Alvin Toffler, "will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

Teachers are strongly encouraged to integrate or, preferably, make integral, ICT in their teaching. If, as is often the case, teachers' first impulse is to teach as they were taught, then the most effective way to prepare them to teach with ICT may be to ensure that ICT is integral to teacher preparation programs.

There is increasing pressure for teacher education programs to graduate teachers who are confident and competent in using ICTs for their personal and professional lives. At a program level this requires a move beyond random acts of innovation in which early adopters continue to explore opportunities for ICT integration to extend and enhance learning. Teacher educators can no longer view ICT integration as an option or something new and not relevant to their courses. To adequately prepare teachers for work in the classrooms of tomorrow, teacher preparation programs need to develop programs that infuse ICTs into

the entire program using authentic and pedagogically appropriate approaches. That is, 'students should learn about, learn with, and learn to incorporate technology into their own teaching' (SITE, 2002).

WHAT ARE ICTS AND WHAT TYPES OF ICTS ARE COMMONLY USED IN TEACHER EDUCATION?

ICTs stand for information and communication technologies and are defined, for the purposes of this primer, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information." These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony.

In recent years there has been a groundswell of interest in how computers and the Internet can best be harnessed to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings. But ICTs are more than just these technologies; older technologies such as the telephone, radio and television, although now given less attention, have a longer and richer history as instructional tools. For instance, radio and television have for over forty years been used for open and distance learning, although print remains the cheapest, most accessible and therefore most dominant delivery mechanism in both developed and developing countries. The use of computers and the Internet is still in its infancy in developing countries, if these are used at all, due to limited infrastructure and the attendant high costs of access.

Moreover, different technologies are typically used in combination rather than as the sole delivery mechanism. For instance, the Kothmale Community Radio Internet uses both radio broadcasts and computer and Internet technologies to facilitate the sharing of information and provide educational opportunities in a rural community in

Sri Lanka. The Open University of the United Kingdom (UKOU), established in 1969 as the first educational institution in the world wholly dedicated to open and distance learning, still relies heavily on print-based materials supplemented by radio, television and, in recent years, online programming.⁸ Similarly, the Indira Gandhi National Open University in India combines the use of print, recorded audio and video, broadcast radio and television, and audio conferencing technologies.

HOW CAN ICTS HELP EXPAND ACCESS TO TEACHER EDUCATION ?

ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underserved constituencies-scattered and rural populations, groups traditionally excluded from education due to cultural or social reasons such as ethnic minorities, girls and women, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enroll on campus.

- **Anytime, anywhere :** One defining feature of ICTs is their ability to transcend time and space. ICTs make possible asynchronous learning, or learning characterized by a time lag between the delivery of instruction and its reception by learners. Online course materials, for example, may be accessed 24 hours a day, 7 days a week. ICT-based educational delivery (e.g., educational programming broadcast over radio or television) also dispenses with the need for all learners and the instructor to be in one physical location. Additionally, certain types of ICTs, such as teleconferencing technologies, enable instruction to be received simultaneously by multiple, geographically dispersed learners (i.e., synchronous learning).
- **Access to remote learning resources :** Teachers and learners no longer have to rely solely on printed books and other materials in physical media housed in libraries (and available in limited quantities) for their educational needs. With the Internet and the World Wide Web, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at any time of the day and by an unlimited number of people. This is particularly significant for many schools in developing countries, and even some in developed countries, that have limited and outdated library resources. ICTs also facilitate access to resource persons - mentors, experts, researchers, professionals, business leaders, and peers-all over the world.

APPROACHES TO ICT INTEGRATION IN TEACHER EDUCATION

Use of ICT within teacher training programs around the world is being approached in a number of different

ways with varying degrees of success. These approaches were subsequently described, refined and merged into following approaches -

1. **ICT skills development approach :** Here importance is given to providing training in use of ICT in general. Student teachers are expected to be skilled users of ICT for their daily activities. Knowledge about various software, hardware and their use in educational process is provided.
2. **ICT pedagogy approach :** Emphasis is on integrating ICT skills in a respective subject. Drawing on the principles of constructivism, pre-service teachers design lessons and activities that center on the use of ICT tools that will foster the attainment of learning outcomes. This approach is useful to the extent that the skills enhance ICT literacy skills and the underlying pedagogy allows students to further develop and maintain these skills in the context of designing classroom- based resources.
3. **Subject-specific approach :** Here ICT is embedded into one's own subject area. By this method, teachers/subject experts are not only exposing students to new and innovative ways of learning but are providing them with a practical understanding of what learning and teaching with ICT looks and feels like. In this way, ICT is not an 'add on' but an integral tool that is accessed by teachers and students across a wide range of the curricula.
4. **Practice driven approach :** Here emphasis is on providing exposure to the use of ICT in practical aspects of teacher training. Focus is on developing lessons and assignments. Using ICT and implementing it in their work experience at various levels provides students an opportunity to assess the facilities available at their school and effectively use their own skills.

BENEFITS AND ROLES OF ICTS IN EDUCATION

As Jhurree (2005) states, much has been said and reported about the impact of technology, especially computers, in education.

Similarly, Hepp, Hinostroza, Laval and Rehbein (2004) state that the literature contains many unsubstantiated claims about the revolutionary potential of ICTs to improve the quality of education. Hepp, Hinostroza, Laval and Rehbein (2004) also note that some claims are now deferred to a near future when hardware will be presumably more affordable and software will become, at last, an effective learning tool.

Considerable resources have been invested to justify the place of technology in education, and many research studies have revealed the benefits and gains that can be

achieved by students, teachers and administrators (Jhurree, V., 2005). Although not all of the existing studies can be mentioned here, the following authors have often been mentioned in the literature:

To begin with, Hepp, Hinostroza, Laval and Rehbein (2004) state the following reasons for the application of ICTs in education -

- **A new society requires new skills :** Due to the fact that ICTs are the preeminent tools for information processing, new generations need to become competent in their use, should acquire the necessary skills, and therefore must have access to computers and networks during their school life.
- **Productivity enhancement :** Schools are knowledge-handling institutions; therefore, ICTs should be fundamental management tools on all levels of an educational system, from classrooms to ministries.
- **A quest for quality learning :** Schools should profoundly revise present teaching practices and resources to create more effective learning environments and improve life-long learning skills and habits in their students.

In order to address the questions of "How can ICTs be applied to support education change?" and "How can its application in education in turn support sustained economic development and social transformation?" Kozma (2005) suggests the following four types of approaches in general -

- ICTs are used to improve the delivery of and access to education. This approach can improve education on the margin by increasing the efficiency by which instruction is distributed, but it need not involve fundamental change.
- ICTs are the focus of learning. By learning ICT skills, students become better prepared for work that increasingly involves the use of ICTs.
- ICTs can be used to improve student understanding, increase the quality of education, and thereby increase the impact of education on the economy.
- Knowledge creation, technology, technological innovativeness, and knowledge sharing can contribute to the transformation of the education system and to sustained economic growth and social development.

Moreover, Papert (1997) identified the following positive effects on students of ICTs in education include:

- enhanced motivation and creativity when confronted by the new learning environments,
- a greater disposition to research and problem-solving focused on real social situations,
- more comprehensive assimilation of knowledge in the interdisciplinary ICT environment,

- systematic encouragement of collaborative work between individuals and groups,
- ability to generate knowledge,
- capacity to cope with rapidly changing, complex, and uncertain environments,
- New skills and abilities fostered through technological literacy.

Furthermore, Kozma and Anderson (2002) claim that ICTs are transforming schools and classrooms by bringing in new curricula based on real world problems, providing

scaffolds and tools to enhance learning, giving students and teachers more opportunities for feedback and reflection, and building local and global communities that include students, teachers, parents, practicing scientists, and other interested parties.

Similarly, Hepp, Hinostroza, Laval and Rehbein (2004) state that the roles ICTs play in the educational system can be pedagogical, cultural, social, professional and administrative.

- **Pedagogical Tool Role :** ICTs provide a new framework that can foster a revision and an improvement of teaching and learning practices such as collaborative, project-based and self-paced learning.
- **Cultural, Social, and Professional Roles :** The cultural, social and professional roles of ICTs are exercised primarily through an effective use of the vast amount of information sources and services available today via Internet and CD-based content for the entire educational community: students, teachers, administrators and parents.
- **Administrative Roles :** ICTs have important roles to play in making school administration less burdensome and more effectively integrated to the official information flow about students, curricula, teachers, budgets and activities through the educational system information pipelines.

STRUCTURAL CHARACTERISTICS OF ICTS RELEVANT FOR DEVELOPING EDUCATION SYSTEMS BASED ON CULTURE AND ARTS

Three types of ICT ? based products : Practical development of education systems that use ICTs and aim at creating new forms of education organization enforces new definition of such product types. The necessity for such re-definition becomes manifest when we try to determine the role of products' creators in education process.

Three types of ICT-based products can be identified:

- **Entirely alienable/autonomous :** e-book, CD-ROM, hard copy + CD-ROM, 'self-developing' resources etc.;
- **Unalienable :** updateable, modifiable or moderated Internet-publications, interactive resources etc.;

- **Hybrid** : hard copy + CD-ROM + updateable and modifiable Internet-publication.

The above types can be used for group work (group training, network classes) or for individual study.

Hybrid segments of educational environment :

Hybrid segments of educational environment imply distribution of information, unified content and single projecting process over various vehicles and functional objects - paper and digital.

Distributing art spaces, resources and tools in paper and digital form significantly increases available field of creative projective activities in arts education.

Hybrid forms combine two principally different parts - actual physical space and virtual environment. Main requirements for hybrid segments of educational environment are clear interdependence and technological "transparency". Equally important and necessary is an opportunity for interactive manipulation of educational tools and freedom of students' creative initiative.

Most examples of applying ICTs for arts education known today use hybrid forms, in which digital vehicles provide information and means of demonstration. Paper media base individual projects (notebooks, print-outs, images etc.). Opportunities offered by ICTs are much wider and can potentially become a powerful environment for creative self-actualization and project design. This potential must meet the need of creative mind to implement creative concepts via traditional material and tangible media.

ROLE OF ICT IN THE CURRICULUM

One can generally differentiate three distinctive roles for ICT in the curriculum

- **Learning about ICT** : ICT as a subject of learning in the school curriculum, such as computer literacy, computer sciences and information literacy.
- **Learning with ICT** : The use of various computer capabilities such as computation multimedia, internet or World Wide Web (WWW) as a medium to enhance instruction or as a replacement for other media without changing beliefs about the approach to and the methods of teaching and learning.
- **Learning through ICT** : Here ICT is integrated so completely as essential tool in a course/curriculum that the teaching and learning of that course/curriculum is no longer possible without it.

As per the report published by UNESCO in 2003 the advanced countries including Australia, South Korea and Singapore have integrated ICT's into their educational system. Countries using ICT's but have not fully integrated ICT's in educational include China, Thailand, Japan, Malaysia, Philippines and India.

The best use of information communication technologies in India has been i.e. Video conferencing facility which was introduced to import knowledge about the new technologies by UGC-CEC network with the help

of ISRO and Doordarshan in the year 1994. CEC (Consorting for educational communication-an inter university centre of University Grants Commission) is responsible for maintaining the quality of e-content material on higher education. All the CEC material will be available on website through internet all over the world which can be accessed and used for educational purpose in most of the subjects taught in the country in two to three years time.

ICT TRAINING INPUTS FOR TEACHERS AND TEACHER-EDUCATORS

For the successful implementation of ICT, teacher trainees, teachers and teacher-educators need to be trained in the following dimensions. The commercially available training programs are designed to provide exposure only to system software, some of the application software and the basics of internet.

1. **Awareness phase** : The input should be to make the teachers aware of the importance and possibilities of ICT-the current trends and future projections.
2. **Learning theories and technology integration** : Traditional and modern view of learning, shift from teaching to learning, constructivism, role of ICT in lifelong learning.
3. **Basic hardware skills** : Hands on experiences in operating a) the PC and laptops-switching on, shutting down, and networking, b) storage devices-using floppy drive, CD ROM drive, flash drive, and burning CD-ROM , c) output devices-using printers and speakers, d) input devices-using keyboard (Including shortcuts), mouse, modem, scanners, web cam, digital camera, camcorders, date loggers and d) display devices- data projectors, and interactive white boards.
4. **Understanding system software** : Features of desktop, starting an application, resizing windows, organizing files (Creating, editing, saving and renaming), switching between programs, copying etc.
5. **Using application/productivity software** : Word processing, spreadsheet, database, presentation, publishing, creation of Portable Document Format (PDF) files, test generation, data logging, image processing etc.
6. **Using multimedia** : Exposure to multimedia CD ROMs in different subject, installing programs, evaluating CD ROMs, approaches to using CD ROMs, creating multimedia presentations.
7. **Using internet** : e-mail, communities, forums, blogging , wiki: subscription to mailing lists, e-mail and internet projects, web searching strategies (navigating, searching, selecting, and saving information) videoconferencing, designing web

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DIGITAL PANCHAYAT

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ABSTRACT

Modern society and economy is driven by information, knowledge and, network based relationships. Information and knowledge is power and this leads to an equitable and transparent societal and good governance administrative system. The power of Information Communication Technology to this effect is tremendous. India is no exception and this is more applicable at the level of PRIs. MCA 21 initiative (Ministry of Company Affairs) is one instance. The India national portal is another. More or less these are all at administrative and governance level pertaining administrative processes connecting the people at large. This left with a major, national gap as far as using ICT for the nation building is concerned. ICT usage is largely missing at the elected representative levels at all 3 tiers of political representation.

There is no visible and effective usage- of ICT at the level of elected representatives in India despite all major policy decisions and implementations coming through them. This is missing at national, state and Panchayat levels. The strong indicator to this is neither at the Parliamentary level. State Assembly nor at the Panchayat level, there is web interface of the constituencies either functional or static with information and content base.

Imagine the power of the Internet that can revolutionize information sharing, good governance, transparency, and development indicators once every constituency starts having a web portal to start with each Panchayat. The Panchayats, portals having substance and life with full information and content will revolutionize bottom up development. In all we have around 542 legislatures or as many constituencies, about 2400 Panchayats, representing more than 5,45,000 villages. The already existing e-Panchayat programme exists but the power of content and information with proverbial bottom-up mechanism missing.

With this background the Concept of 'Digital Panchayat (DP) has been ideated and rolled forward for implementation. Having a web interface Panchayat level connected to the grassroots has tremendous relevance and utility in overall governance and development of our grassroots constituencies.

Digital Panchayat programme is a national initiative of Digital Empowerment Foundation and National Internet Exchange of India (Dept of-IT, Govt. of India).

About the Project : Digital Parichayat is a functional and dynamic digital platform and working station designed and created for each and every Panchayat in India, powered by Internet. The objective is to facilitate and improve Panchayat functioning on day-to-day basis, through two way flow of information and content. The goal is to realize various development objectives at grassroot level.

DIGITAL PANCHAYAT OBJECTIVES

- To empower citizens of every panchayat with bottom up and top down information and content
- To improve development and governance public service delivery at Panchayat level through information on policy programmes, and implementation;
- Create a digital data house at every Panchayat level
- To facilitate growth of Panchayat economy through promotion of Panchayat tourism, e-commerce of local produce;
- To put every Panchayat on the global digital map
- To generate an ICT environment in every panchayat
- To give fillip to the Right to Information campaign.

DIGITAL DIVIDED (In %)	
Sector	Tele Density *
Urban	169.37
Rural	38.53
National	78.10
* As on Feb 29, 2012	

DIGITAL PANCHAYAT COMPONENT

- A comprehensive and dynamic local language content online platform
- Integrated digital platform for panchayat demography, society, hire geography, history & economy
- A bilingual or multilingual information platform
- e-trade and e-commerce platform Local e-tourism platform
- Online public grievance redressal forum
- Local online resource center
- Online communication and information networking platform

- An e-Government platform
- A digital data storehouse

DIGITAL PANCHAYAT ACTIVITIES

- Develop a comprehensive Panchayat Digital Platform
- To train Panchayat representatives in IT skills & management of Panchayat platform
- Generation of Panchayat content
- Regular updating and maintenance of Panchayat content

DEF seeking local partners association: Partnership is fundamental and vital to achieve our goal of digital mission and sustainable development.

Ours is a huge task and we think that, we can achieve it through collective participation of one and all. DEF seeks local partnerships and collaboration with NGOs and institutes at local and regional level who would like to contribute their time and efforts to make Digital Panchayat national programme a success through networking, campaigning and outreach.

For local NGOs and Institutions who would like to be associated with DEF through Digital Panchayat can contribute as follows -

- Identifying Panchayats in different villages to be converted on digital platform
- Identify-village Panchayats and its information, content and services needs
- Frame parameters to collect the consent to be displayed, on the portal. Identify the people to collect it, orient them, to collect it and then in collecting the required information
- Project formulation and Implementation
- Provide technical support man resource
- Provide assistance in infrastructure hosting
- Orient and train people including Panchayat staff on importance of Web technology using the updating. it and provide initial handholding, support
- Extend cooperation in regularly monitoring the program and evaluating the outcomes for same on regular basis

India lives in its villages is the oft quoted statement of the Father of the Nation. In reality however the people of India were far distanced from the seat of power and the Government at the Centre and in the States. The greatest strength of grass root democracy reflected through the Panchayat Raj Institutions is its proximity to the people. It is an important step towards the realization of Gandhiji's dream of Village Swaraj. Grass root level democracy has a tremendous potential for establishing a people centered

delivery system which is essential for sustainable development. The village assemblies Grain Sabhas can emerge as a platform for expression of people's needs and aspirations.

This in turn will help to effect timely utilize the local resources and, pave the way for need based development which would bring visible benefit to the local community. These institutions also provide opportunities for the marginalized and socially excluded groups to participate in decision making, Fundamental requirements for personal advancement such as access to health care and education can be better provided by judicious assessment of needs and allocation of resources.

With the people being actually involved in decision making the scope for corruption and misuse of resources and authority get reduced. Close monitoring and social audit area, possible for taking corrective action which was not possible in the erstwhile top down approach that was in vogue. The vesting of powers of taxation with the Gram Panchayats has enabled them to, increase their resource base for accelerating, development. At the panchayat level, there can be very imaginative and pragmatic pooling of resources and convergence of schemes which will bring larger good to the community. Micro level planning which was virtually absent hitherto enables to translate people's aspirations into need based programmes.

Since the Panchayat Raj Institutions are still in the early stages, of development they are yet to overcome several weaknesses which have not enabled them to reach their full potential. First and foremost, the Gram Sabha which is considered as the life-line of PRIs by directly reflecting people's views and voices has to see a much higher level of participation by the entire community. There has also to be much greater involvement and articulation of the needs of the entire community particularly the deprived sections, Secondly there is considerable discretion vested in the state Governments. PRIs falls under the state subject and the legal language of shall and may and other connotations has led to various levels of conformity by the state Governments. It is seen that Several non obligatory provisions, like the representation of legislators and members of parliament in PRIs, is affecting the true expression of village democracy. Adequate training and sustained handholding efforts are not extended to elected representatives. Hence there is a lack of professionalism in handling administrative, financial and other related issues. Devolution of three Fs- Funds, Functions and Functionaries which is imperative for effective public service delivery has not yet taken place in many states.

The District planning committee has been constituted; However its performance levels need to be improved by

making the District Panchayat Chairman as its head and reducing the role of in charge Ministers.

The weaknesses which are highlighted are structural. A greater amount of political will is essential to enable these bodies to function as true democratic institutions.

After we have debated, discussed and delved on the nitride cades of PRIs; we move to the I conclusive part. As we do SWOT (Strength, Weakness, Opportunities. Threat) analysis we can come is up: with some finger counting i aspects. Despite these challenges, i the PRIs have been playing a role I as institutions of local governance in the changing scenario of rural development. Some of the positive trends are as follows :

1. FRIs are increasingly recognized as the best available alternative to implement several i developmental programs and" of late GPs are made to play a pivotal role in the planning and implementation process. Direct funding is also being made available for speedy implementation of programmes.
2. Since various Ministries and do nor agencies have started adopting the 'Saturation approach' in developmental programmes by extending the delivery to the last man, PRI institutions have started to play an enlarged role in identification, planning and implementation.
3. Social audits at PRI level have shown that people's participation is both qualitatively and effectively resolving local problems.
4. Performance of the PRIs is evaluated both by national and international agencies (Google) and they are given awards, which has led to increased motivation on part of PRIs. Due to this, over the years, one comes across several performing GPs who are recognized as Beacon Panchayats and role models for others. They have been successful in converging both human and financial resources and have been successful in promoting social and economic equity.

To conclude grass root level democracy has come to stay India through the instrumentality of 73rd and 74th Constitutional Amendment. While on the one side of the spectrum there are very; active and strong PR Institutions, at the other end we have a large number of PRIs which are not in a position to perform effectively.

The performance levels of the FRIs have been directly proportionate to levels, of transfer of Viz., Functions, Functionaries and Funds. Since the devolution of the powers and functions are within the ambit of the State Government and the Act does not make it mandatory for full-fledged transfer of powers, the PRIs have not developed uniformly across the country. With the implementation of

more rural development programmes through the PRIs and increase in the budgetary outlays (e:g., MGNREGA - 40,000 crores,) the resource base of the PRIs has increased;

The challenges to translate these schemes very effectively at the ground level for the benefit of the common people have also brought pressure on the PRIs to play their role more effectively, The efforts made by institutions such as the National Institute of Rural Development and the State Institutes of Rural Development and other agencies for capacity development of the functionaries is also showing positive results, in. terms of improved delivery by the PRIs. Increased participation of women in PR institutions resulting from higher percentages of reservation is slowly changing the face of PRIs. More acceptable and sustainable developmental trends are emerging through the interventions of PR Institutions with more participation of women elected representatives.

The establishment Self Help Groups in many States, the participation of NGOs and CBOs working together With the PR Institutions is a promising trend Which, if guided properly, can improve the delivery of governing systems at the grass root level.

And there truly India can be called as a nation of self-Governed units arid democracy "entrenched" into the last mile. Not to forgets that with this only will come the causality in Governance and the root ideology of "for the people", 'by the people' and 'of the people' will come to true fruition.

Even as your writer discusses .these issues, the Gol has through executive decision endeavored to take, it as 'mission mode' to connect all 2.5 lakh Gram Panchayats through broadband.

Intact, 48 Gram Panhayats in the States of Andhra Pradesh, Bihar and Rajasthan are being pilot tested for this model, with e-Panchayat, certainly, the nation can look forward to efficient Panchayat. With efficiency will come democratic credentials and we will be able to fathom the great distance through giant e-steps towards realising the dream of village democracy.

REFERENCES

- **Rao T.V. :** 2011. HRD Missionary. New Delhi: Oxford - IBH.
- **Whitehead, A.N. :** 1953. Science and the Modern World, Cambridge: University Press.
- **Environment Annual Report :** 2011, Published by Government of India



A CRITICAL STUDY OF TEACHER EDUCATION PROGRAMME

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INTRODUCTION

A nation is built by its citizens, citizens are molded by teachers and teachers are made by teacher-educators. The national policy on education, 1986 has rightly stated, "no people can rise above the level of its teachers," so far the development of the country, it is very important to have good teachers and good teachers can be only if we have a good system of teachers education and dedicated and efficient teacher-educators.

Many commissions and committees appointed by the government of India after independence emphasized with one voice the need for qualitative improvement in education. It is a natural phenomena that wherever there is a quantitative expansions, quality suffers to some degree or the other. The NPE 1986, revised in 1992, stressed the need for restriction teachers education programme to meet the constitutional developmental needs of education people in general and teachers education in particular.

The Delhi Declaration on "Education for all" endorsed the view that quality of education depends very much on the quality of teachers educations.

The Government of India has initiated certain steps in this direction namely;

- 1) Strengthening of DSERTs
- 2) Establishment DIET in each district for organizing pre-services and in-services education of primary school teachers.
- 3) Up gradation of college of Education into CTEs at few of them into IASEs with the responsibility of introduction innovation in teacher education at secondary level and in vocation education.

During the last forty-eight years after independence, there has been rapid growth of education at all levels. The unprecedented increase in enrolment every year needed ever-increasing number of teacher as well as increasingly school. Therefore quality of education was sacrificed for the sake of quantity in education. Teacher education facilities could not increase as rapidly as required to produce the number of teachers needed for the increase enrolment as school level. Therefore untrained persons with low academic qualification were appointed as teaches. In addition due to inadequate financial resources, the large number of school and colleges that were set up could not be properly equipped with educational infrastructure. Many new ill-equipped and understaffed teacher education

colleges also sprang up and began preparing ill-trained teacher who were given the certificates as trained teachers. All this has caused considerable erosion in the quality of existing teachers. And in the standards of teacher educations.

SIGNIFICANCE OF THE STUDY

Teachers have always played a critical role in preparing communities of societies towards exploring new horizons and achieving higher levels of the programme. And development they are prime agents of change. The significance of the emerging role of teacher. Has never been so critical as at this juncture. Professionalism in teacher education has been a matter of concern attention in India. In order to make education more effective and efficient we must know its problems deficiency and defects accordingly. The investigator has taken up the study of colleges of education affiliated to Gulbarga University which is located under Hyderabad-Karnataka region.

As per insistence of NCERT and DSERT the education program is to bring out quality improvement in lower level of education. But seeing the performance of the school education, we may say that the B.Ed., Colleges are not working with the expectation, in order to maintain the quality education. The kind of education, education programmes might be reasons for poor performance at school education. In order analyse critical the existing B.Ed., programme investigator has taken up the study.

METHODOLOGY

Considering the nature of the problem under investigation survey method was employed.

SAMPLE

In this study investigator has taken nine colleges of teacher education affiliated to Gulbarga University, Gulbarga. The study was conducted during the year 2000-2001 student teachers.

TOOL

The investigator observed the descriptive literature available in the Department of studies and research in Education Gulbarga University, Gulbarga and based on the existing regulation of B.Ed., programme and the course syllabus based on the NCTE Centralized Admission Cell (C.A.C) guideline the investigator prepared and drafted questionnaire and standardized with the help of experts for validity and reliability.

OBJECTIVES OF THE STUDY

1. To prepare the questionnaire based on validity and reliability.
2. To study the B.Ed., course regulation and syllabus.
3. To find out the effectiveness of the B.Ed., programme in the colleges.

MAJOR FINDINGS**OBJECTIVE - 1**

To find out the B.Ed., programme in the college of teacher education Gulbarga University, Gulbarga

- 1) Demonstration was given by the concerned method masters at the time of start practice teaching to the student-teachers in every colleges of teacher education affiliated to Gulbarga University, Gulbarga.
- 2) In every colleges of teacher education of Gulbarga university Gulbarga before given the demonstration lessons the orientation programme or workshops arranged for the purpose of preparation of lesson plans and also lessons by their method masters.
- 3) In some colleges of teacher education the demonstration lessons were given before the starting their block practice teaching programme. Collectively for their student teachers and some other colleges this kind of demonstration were collectively given in each method in front of the all student-teachers. In addition, this kind of demonstration were helpful the students both C.C.M, in their training period.
- 4) The student-teachers on preparing their lesson plans they have taken sufficient guidelines from the concern method master independently, every college of teacher education have provide given their own time to take guidance from their masters.
- 5) Average of students of colleges of teacher education their lesson plans were prepared in each method 1 to 5 lessons with the guidance by their method masters. In addition 6 to 10 lesson plans were prepared by them independently.
- 6) According to the regulation of B.Ed., programme in each method 12 lessons and 1 criticism lesson have given during the B.Ed., course by the student teachers.
- 7) Most of the student-teachers have proper guidance fro the method masters to prepare the lesson plans.
- 8) Most of the student-teachers were not effectively prepared the criticism lessons in B.Ed. training.
- 9) According to the opinion of the various B.Ed. college of education in Gulbarga university 14 lessons are sufficient for the B.Ed. training during the course.
- 10) The student-teaches while they prepared the lesson plans they have framed general and specific

objective in their lesson plans and they felt that some objectives are gained instead of all objectives which mentioned in their lesson plans in the classroom phenomena.

- 11) Every colleges of teacher education of Gulbarga university have followed the methods adopted in their lesson that is Herbarton's steps and also these steps are called by another name is that five-stages method.
- 12) The student-teachers following the method they have adopted in their class while giving the lesson in practice teaching of the various college of teacher education og Gulbarga University have followed the discussion method.
- 13) In various colleges of teacher education gulbarga university the student teachers have given the micro-lesson most of the student-teacher have got satisfactory from method masters and average student teacher have taken at least 6 attempt for successful in their micro-teaching and they have develops their skills in the micro-teaching according to the study investigator found that various college of teacher education were not given importance to develop the skill of micro-teaching. No population studies are adopted as optional paper by the colleges of education of gulbarga university so population integrated lessons is not prepared.
- 14) All most all college of education of Gulbarga university have initiated to their student-teacher each 20 lessons in their method and 20-general period that total 60 lessons has to be observed by the student teachers for the purpose of development of their skill of evaluate the lessons. According to the regulation total 15 lessons in each method and general also to be observed.
- 15) In various college of education of Gulbarga university, according student-teachers/opinion the counseling session held for assignment writing by their teacher staff therefore investigator is found that percentage of not respondents and ignored answer are equal so the student are written their assignments with copying from previous years assignments.
- 16) The different kinds of assignment submitted by student-teacher there is in the form of question answer, prepared the reports in every subject and also in the methods of their curriculum and average of colleges of teacher education have given two assignments in each subjects of each methods.

OBJECTIVE - 2

To find out B.Ed. regulation and its syllabus

- 1) Every college of teacher-education of Gulbarga University organized citizenship training camp because this one the objective of C.T.C is related to

the B.Ed. training C.T.C. are playing a very important role to prepare the good teachers. C.T.C. is a part of B.Ed. training and this camp is organized by the institution based on curriculum of the B.Ed. training.

- 2) Two years back the N.C.T.E. considered educational tour is compulsory now a days, it has left on the interest of institution so some of the institutes of colleges of teacher education of Gulbarga University conducted in the academic year 2000-2001 which ever the institutions were conducted was made compulsory to prepared tour report and submitted by the student-teachers.
- 3) Every college of Education of Gulbarga university have initiated instruction to their student-teachers to prepared the socially useful productive work (SUPW) during their course and every student teachers of various colleges have submitted SUPW prepared material and report their on and it is considered and an essential among the B.Ed. programme.
- 4) Every college of teachers education concern to the physical education conducting sports or games during the course and organized this kind of games at national festivals. In addition most of the students were participated in games.
- 5) The various college of teacher education have organized cultural activities, during the training period these cultural activities are concerned to the debate competition, singing competition only, this kind of competition is not playing an importance to develop the extra knowledge's among student-teachers.

DISCUSSION AND CONCLUSION

To improve the quality of teachers, it is desirable to improve the quality of teacher-educator and teacher education institutions, teacher education institutions are lacking the minimum basis facilities like classroom, furniture equipment etc. Besides, required number of qualified staff is also not available in various colleges. Post are lying vacant for years together.

In establishing DIETs the basic principle i.e. up graduation is not maintained through in establishing six 1st DIETs, an attempt was made to upgrade the existing BTCS subsequently, in case of second and third phase DIETs no such attempt was made. There is now proposal for establishment is not there. These institutions like DIETs CTEs, and IASE, envisaged with the basic objective to perform various important functions like pre-service in-service teacher education research and innovative implementation of these programmes it is highly essential to extend sufficient number of faculties and regular guidance and support to the state level institutions like the SERT, SIE, SISE, ELTI et. At present, condition of state level institutions are deplorable most of the posts of state and district level institutions have been lying vacant.

- From Continued on Page No. 15

pages, freeware and shareware, evaluating website resources, virtual fieldtrips, learning opportunities using the web, and netiquette.

8. **Pedagogical application of ICT tools :** Specific use of application software in different subject, appropriate ICT tools and pedagogy, unit plan integrating ICT tools, approaches to managing ICT-based learning groups, assessment of learning, electronic portfolio and assessment rubrics, creating teacher and student support materials, supporting students with special needs.
9. **Introduction to open source software :** Concept, types, advantages, working on open sources application software.
10. **Social, legal, ethical and health issues :** Advantages and limitations of computer use, privacy violations, copyright infringement, plagiarism, computer security (hacking, virus, misuse, abuse and staying safe) healthy use (seating, light, sound, radiation, exercise)
11. **ICT for professional and personal productivity :** ICT for administration, record keeping, reporting and transfer of information, attendance, research, careers in computers and professional development opportunities.

As an advanced training website development, installation and use of server based applications, training in course management system, e learning course content development using various authoring tools, audio/video / image editing, animation etc. can be introduced. In addition to the hands on experiences every training program could include an ICT awareness /familiarity quiz, exhibitions of ICT books and multimedia CD ROMs by commercial agencies, poster session on success stories, case study presentations and analysis, ICT based demonstration lesson in the schools (whole class, small group, internet based, etc) exhibitions and presentations by commercial agencies on emerging technologies.

REFERENCES

- **Anjali Khirwadkar :** "Integration of ICT in Education: Pedagogical Issues" : Center of Advanced Study in Education Faculty of Education The M.S.University of Baroda India.
- **Ayşe Kok :** "ICT INTEGRATION INTO CLASSROOMS" : Turkey.
- **Nicolas Selivanov :** " Education, ART and ICTs Integration for the Development of One's Personality" : Senior Researcher Russian State University for the Humanities. Pg No- 27-28.
- **Peter Albion:** "Teaching by example? Integrating ICT in Teacher Education" Faculty of Education, University of Southern Queensland, Australia.
- **Victoria L. Tinio :** "ICT in Education": New York,NY

WEBSITES

1. [www.Wikieducator.Org/ images/e/ef/PID_619.pdf](http://www.Wikieducator.Org/images/e/ef/PID_619.pdf)
2. [www.unescobkk.org/education/ict.in.education/online resources](http://www.unescobkk.org/education/ict.in.education/online%20resources)
3. [www.winona.edu/21st century/success.html](http://www.winona.edu/21st%20century/success.html)
4. www.Google.Com

DIGITAL DIVIDE : BRIDGING THE GAP

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INTRODUCTION

The Information and Communication Technology (ICT) is one of the important driving forces for modern civilization. The rapid development and proliferation of ICTs has accelerated the economic and social change (Nandi, 2002), across all areas of human activity worldwide and continues to do at the rapid pace. ICTs enable interactive communication unhindered by distance, volume, medium or time and also reduce the cost of co-ordination (Fletcher et al, 2000), communication and information processing (Dean, 2002; Gordon, 2000). ICTs hold great promise in derive for development and poverty reduction in India.

ICTs have radically changed the way of doing business. Internet and its enabled business technologies like e-commerce have opened up vast business avenues and transformed the whole business world into a global village. Further, it is expected that ICTs will play a crucial role in the socio-economic development process, and change the pattern of people's economic models and lives. But, the potential to exploits the benefits of ICTs largely depends on the access and adoption of these technologies. In fact, the status of ICT adoption of an economy is an indicator of its potentiality to exploit the economic opportunities affordable by the new technologies-more generally, its prospects for the transition to the 'new economy'. But, as expected the adoption of ICTs vary significantly across countries. That leads to a gap, which hinders the uniform development of the nation in all sphere of life.

DIGITAL DIVIDE

The notion of a digital divide gained attention in the 1990s with recognition that some people and institutions were not going online or were not going onto broadband. The concept of a "digital divide" between technological "haves" and "have-nots" has been a useful tool in efforts to bring greater, more equal access to powerful new information and communication technologies like the Internet. The term 'Digital Divide' is used to describe situations in which there is a gap in access to the use of ICT devices measured by, for example the number of fixed line phones per inhabitants, or the number of mobile users or the internet connections in the population. The term

'digital divide' refers to "the gap between individuals, households, businesses and geographic areas at the different socio-economic levels with regard to their opportunities to access information and communication technologies (ICTs) and their use of Internet".

DIGITAL DIVIDE : TYPES

'Digital divide' essentially describes three distinctive divides: a geographical digital divide (between regions and countries), a social digital divide (between social classes), and an upgraded digital divide (between technology and humans). Norris (2001); Mark, (2003) and Branko (2005) suggest that there are at least three major divides :

1. A global divide between the developed and undeveloped worlds
2. A social divide between the information rich and the information poor
3. A democratic divide between those who do and those who do not use the new technologies to further political participation

Thus digital divide can be defined as economic, social or cultural deprivation generated by missing ICT access and skills. In the modern knowledge- and information-based world, economic opportunities, such as employability, depend on ICT access and skills. ICTs, however, also play an increasingly important role in all social relationships, ranging from political participation to connecting local communities, friends and the family. Second, in the global and culturally diversified world, ICTs are also increasingly important for access to cultural resources and expression. Third, the definition also replaces traditional technology-focused characterizations of digital divide, noting that lack of technology, is not always a problem. It is clear that technology remains inert and useless with knowledge and capabilities to use them, and when they are embedded in social without necessary human skills and competences. Technologies become real when they are combined practices.

DIGITAL DIVIDE IN INDIA

ICT infrastructure is the backbone of modern society. It is the biggest enabler of change and process reforms with minimum resistance. Various studies (Lawrence and

Lee, 1999; Leizero, 2000; Pastor et al, 2004; Norris, 2000; Sumanjeet, 2006) revealed that good governance is not possible without the ICTs. The governments to deliver its services at the locations convenient to the citizens are increasingly using the information and communication technologies. Further, it brings effectiveness, efficiency and transparency in the system. Therefore, the governments around the world are busy in developing the ICTs infrastructure. India is one of the countries where telecommunication development activities have gained momentum in the past decade or so. Efforts have been made from both governmental and non-governmental platforms to enhance the telecommunication infrastructure. The idea is to help modern telecommunication technologies to serve all segments of India's cultural diverse society.

The gap of digital divide is significant between the rural and urban India (Dasgupta et al, 2002; Nath, 2001; Singh, 2007; Mahajan, 2003; Dutta, 2003). The major metropolises are at par with some of the developed countries, but rural areas in states like eastern Bihar and Orissa are worse off.

INTERNET DIVIDE

Internet came to India in the early 1990. Videsh Sanchar Nigam Limited (VSNL) introduces Internet in India via dial up in the 6 cities on August 14, 1995. By the end of 1998, after three years of government monopoly, there were barely 150,000 Internet connections in India.

According to the survey conducted by Internet and Mobile Association of India (IAMAI), Internet users are estimated at 150 million as on December 2012 and, with a growth predicted to reach more than 1 billion in the next five years.

But data shows that Internet seems to be on a move in the metros of India and not the buzzword for small towns too. Today almost 105 million Internet users in India are belonging to urban population. Rural population constitutes only 45 million. This disparity among the rural and urban Internet users is very high.

Interestingly, among 75% of online audience are between age group of 15-34 years. India is one of the youngest online demographic globally.

DETERMINANTS OF DIGITAL DIVIDE IN INDIA

From the above discussion it is clear that there is huge gap of digital divide between rural and urban India. However, this gap varies from State-to-State. In some States like North East, Uttranchal, Bihar, Jharkhand, Orissa and Anadaman and Nicobar Island the gap of digital divide is really very significant, in some other states it is narrow like Punjab, Maharashtra and Kerala. In some cities like

Delhi, Mumbai, Kolkata, Bangalore, Hyderabad, Noida etc, ICTs adoption rate is very high, whereas in some other cities like, Patna, Lucknow, Ahmedabad (even these are the capital of States) etc, adoption rate is very low. The undeniable fact is that there is noticeably problem of digital divide in India. It is a massive problem and a very complex problem too. It is not just about people who have access and those that do not; it is not just about haves and have-nots. It is about people becoming knowers and know-nots; and doers and do-nots; those who can communicate with the rest of the world and those that cannot. In this light it is also important to find out some of the important reasons behind the digital divide in India.

There are many reasons, which can be held responsible for digital divide in India. Poverty, unemployment, age and education are the some of the major factors.

A Nation Online Survey (NTIA, 2002) found computer and Internet use correlate with poverty (family income), employment status, and educational attainment. Even age is also a major factor (Lenhart, 2000). Rural India has more than 70 per cent of Indian population. 75% of the poor are in rural areas; most of them are daily wages, self-employed householders and landless labourers.

The better educated are statistically more likely to have and use connected PCs. In particular those with college degrees or higher, are ten times more likely to have access. Literacy rate is high in the urban India (79.9 percent) whereas it is only 58.7 percent in the rural India. Overall literacy rate in India is 64.8 percent. There is also huge difference in male (75.3 percent) and female literacy rate (53.7 percent).

Another important reason of digital divide in India is knowledge divide. Knowledge divide is directly related with digital divide. More educated people with computer knowledge and English language are able to access new technologies. Rural India had 368 million literate people out of whom only 63 million were found to be English speaking as on March 2008. Internet use is primarily associated with a large section of the English-knowing urban population-though they account for only 31 per cent of the total urban population of 250 million-as many, as 84 per cent of them are literate. Internet penetration extended to only 0.6 per cent of the population in rural areas, with the number of active Internet users estimated at 3.3 million.

POLICY FOR ADDRESSING THE CHALLENGES IN BRIDGING THE DIGITAL DIVIDE

Despite India taking significant steps towards acquiring competence in information and technology, the country is increasingly getting divided between people who

have access to technology and those who do not. India has around half a million software developers and is second only to the US, but 70 per cent of the Indian population which live in 300,000 Indian villages do not have access to any form of technology, 26 per cent of the population lies below the poverty line and 35 per cent illiterate. The challenge in front of the Indian government is to bring down this digital divide and ensure development and adoption of technology. The government has made encouraging steps to bridge the gap of digital divide in India. Most of the initiatives are directed towards bridging the gap of rural and urban digital divide. The Indian government has passed Information Technology Act, 2000 to make to e-commerce and e-governance a success story in India. Recognizing the potential of Broadband service in growth of GDP and enhancement in quality of life through societal applications including tele-education, tele medicine, e-governance, entertainment as well as employment generation by way of high-speed access to information and web based communication;

The government should adopt the following policy to bridge the gap of digital divide in India :

- Educationists suggest that relationship between education and ICT is critical. International evidence suggests (Pluss, 2004; Rheingold, 2000; Smith, 1998) that education is strong complement to use of technologies like Internet. Like many other developing countries, the main emphasis of Indian government is boost primary education that yields the higher rate of social returns. But, to bridge the gap of digital divide government should introduce some innovative policy measures to encourage students to go for further education in the rural areas.
- There is need to promote technologies which are best suited for the rural India. For example to bridge the gap of digital divide in its real sense there is need to increase PC penetration. The reason is very simple; mobile cannot do everything a PC can. But, mobile are cheaper, more portable and their extended battery life is suited to regions where access to electricity is lacking or non-existent. The infrastructure needed to connect wireless devices to the Internet is easier and less expensive to build. There are also no learning curve, no literacy barrier and no technical-support challenges to overcome. There are no costly and burdensome applications to load, maintain and update. Thus, mobile is best suited for the rural people. Therefore, not only government but also private players should encourage mobile penetration in India.
- The main barrier in Indian rural society is the fact that people do not associate the benefits of the Internet and other communication technologies with their personal needs, believing that "computers are not for them". As a result they behave very passively towards the ICTs. In order to bring 'passive people' to the Internet and ICTs, a broader understanding of the 'ICTs for everyone' notion has to be promoted.
- There is need to develop innovative strategies to address constraints the world's women face in their access to and use of ICTs. For women, content is directly linked to use. If women are to be able to make use of the Internet for income generation, education or advocacy, there must be more relevant content. This includes both substance and languages. Women are producers as well as consumers of information and knowledge and this is an important area of support.
- Like many other developing countries, in India as well great attention has been paid to ICT training in the recent years. Government schools across the country are making use of the computer literacy programmes funded by giant companies like Microsoft Corporation and IBM. In an ironical twist, it is the world's largest technology companies who have taken it upon themselves to help bridge the "digital divide" in India. Microsoft Corp, the world's largest software maker, has signed MoUs with many governments around the country, and has committed \$40 million to promote computer literacy among disadvantaged kids in rural areas. The Confederation of Indian Industry (CII), and the Global Leaders of Tomorrow (GLT) of the World Economic Forum (WEF), have launched an initiative called 'Shiksha India' in December 2001 during the India Economic Summit primarily to bridge the digital divide and promote better quality education in Indian Schools. It is expected that these project will undoubtedly play a great role in overcoming the lack of interest and will help in bridging digital divide.
- Psychological obstacles may be the unwillingness "to reveal one's lack of skills". Therefore the effectiveness of the training programmes will have to be evaluated (to make sure that the trainees have become convinced Internet users) and improvements made where necessary.
- Promotion of telecommunication infrastructure in the rural India is the most important condition for bridging the rural-urban digital divide and Indian government can play a very significant role in creating the IT infrastructure in the rural India. A special expenditure should be marked for bridging the digital divide among the regions. It is clear from international experience (Rowan et al, 1998; Wahid,

2006; Mwesige, 2004; Mosse and Sahay, 2003) that bridging the digital divide is impossible without additional expenditure from the national budget. India should learn from China. In China, government has not only invested heavily in the creation of IT infrastructure, but also in the universal telecommunication access in rural and remote areas.

- Linguistic issues are of major policy importance in India, given the dominance of English language in software and Internet. The desire to promote cultural diversity is one reason behind interest in linguistic issues, but so is the avoidance of social exclusion among non-English speaking population of India. Hence, these matters are critical to various aspects of digital divide. How can they be addressed? A bi-lingual, approach may be best solution for such constrain.

CONCLUDING REMARKS

The explosive development of ICT, its applications, and the emergence of a global information society are changing the way people live, learn, work and interact. Enhanced access to knowledge is rapidly becoming a potent tool for empowering the people and communities in their quest for new opportunities, dignity and a better life. The divide between technology's haves and have-nots threatens the gaps between the rich and poor, within and among countries. Unfortunately, in India all people have access to the Internet and ICT, and an amazingly large number of people especially from the rural areas does not have abilities to use the ICTs in a proper way and, therefore can not draw the advantages from its usage. The issues of "digital divide is posing a Herculean task before the policy makers to provide the maximum benefits to the stake holders.

The educational system in our nation also has been slow to achieve the set target framed by various commissions and committees and schemes launched from time to time. The lack of sound ICT strategies and policies in India is the main cause of these troubles. Added to this, Inadequate Internet and telephone connectivity to India's rural areas, where more than 70 percent of India's population lives, is a key challenge for a number of government agencies, NGOs and multilateral aid agencies.

The corporate sector too is discovering that bridging this digital divide could translate into new market opportunities. Therefore, obstacles such as illiteracy, lack of skills, and infrastructures in rural areas must be tackled if India is to diminish the gap of digital divide.

As far as future of digital divide is concerned in India, it is really very difficult to predict it. But, it is true that the present situation in India is not alarming (if not highly satisfactory). The gap of digital divide is getting narrower. It is expected the government policies and public private partnership will help in bridging the digital divide. But, it is not possible to completely bridge the gap of digital divide in India, as gender, age, culture, language, sex, etc. are all fundamental components that often affect daily activities and experiences including the virtual world.

REFERENCES

- Dasgupta,
- Dasgupta S., Lall S. and Wheeler D. (2002) "Policy Reform, Economic Growth, and the Digital India", Policy Review Working Paper of the World Bank, No. WPS-2567, Washington, DC.
- Dean Parham (2002) "Productivity Gains: Importance of ICTs", Agenda, Vol. 9, No. 3, pp 195-210.
- Dutta Subrat (2003) "Impact of Information Communication Technology on Society." Yojana, Vol. 47, No.2, p 24.
- Dewan S. and Riggins F. J. (2005) "Digital Divide: Current and Future Research Direction", Journal of Association for Information Systems, Vol. 6, No. 2, pp 298-337.
- Kenneth Keniston and Deepak Kumar (Ed): (2003) "The Four Digital Divides". Delhi: Sage.
- Keniston Kenneth (2002) "IT for the Common Man: Lessons from India". NIAS Special Publication SP7-02. Bangalore: National Institute of Advanced Studies, Indian Institute of Science.
- Lind Per (1991) "Computerization in Developing Countries : Model and Reality". London; New York: Routledge.
- Norris Pippa (2001) "Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide". Cambridge; New York: Cambridge University Press.
- Companie B. M. (2001) "Digital Divide: Facing a Crisis or Creating a Myth"? Cambridge: MIT Press, MA.



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ATTAINMENT OF LIFE SKILLS IN PRE -UNIVERSITY COLLEGES OF MYSORE

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ABSTRACT

Pre-University Colleges are popular at the state level as a podium for students before they take off for higher studies and for pursuing professional courses. Infact PUC has been integrated with many organisations like BASE and ACE for the preparation of secondary level students for competitive exams to Professional courses. These organisations breed toppers and topping in all India level Competitive exams requires one to muster all possible life skills like thinking, solving, relationship, understanding and coping skills(WHO,1994,1997). PUC I textbooks in Biology have been studied for attainment of life skills statistically for mean, PLS, ANOVA and t-tests. Variation in attainment with respect to skills of critical thinking, decision-making and effective communication and suggestions for improvement

INTRODUCTION

PUC is a popular option after class X where the students take two years to identify their strengths and weaknesses in academics and opt for a particular professional course of studies. This is a turning point in their academic careers where they have to have the life skills of self-knowledge, self-awareness in order to understand their strengths and weaknesses in academics, their aptitudes and lack of it, the ability to think divergently and select from arts, science, commerce and other streams of study at the secondary level. It is a testing time for them at the personal level as they go through the turbulent emotions of teens and learn to cope with a plethora of emotions and feelings and get into the confusing ambit of relationships. Many get addicted to drugs and alcohol at this stage because of the demands of being popular, inferiority complexes or due to the demands of the socio-economic scenario amongst the collegiates. PUC is a basic qualification for many jobs throughout India and is offered by evening colleges also (examples Kairal Nikethan Education Trust Evening independent PU Collegwe, Chamrajpet PU Day and Evening College, BES Evening PU College, Seshadripuram evening PU College in Bangalore--www. google.com.). It calls for career management skills, time management skills to reach deadlines, decision-making (Beyth-Marom et al., 1989) problem solving and coping skills (coping with stress and coping with emotions). Life skills as defined by WHO (1994) are psychosocial competencies that enable an individual to cope with the challenges of every day life and it is important that students get geared up with these co-scholastic skills of thinking, decision-making and communication skills before they opt for a professional

course (also see Butterworth and Thwaites, 2005; and Meintzes and Pretorius, 2007).

This article is an effort to analyse co-scholastic skills achieved by PUC students of Mysore through the teaching-learning process of Biology content. PU colleges of the Karnataka state follow the state syllabi set apart by the state department of education. However the present analysis is all the more important because of the proposal to introduce CBSE science syllabus from 2012 (www. google.com), this being a strong foundation for higher education in India. Besides laying a firm foundation for higher education, the CBSE syllabi will enable students to compete in All India examinations and to introduce NCET (National Common Entrance Test) for Medicine, Engineering and other professional subjects. Also, the course materials for CBSE are being finalised by Resource Persons as per the NCF (2005).

The portals of higher education are teaming with students wishing to go for various Professional courses leading to lucrative employment avenues. And in tune with Education for ALL, a common syllabus like that of the CBSE is necessary to achieve universality of education. Co-scholastic skills like life skills, physical education etc. and form an important part of the CBSE syllabus.

METHODOLOGY

The present study was undertaken keeping in mind the PUC first year syllabi of colleges in Mysore. The general area of study was the IPUC syllabus of 2007-08.

The textbooks (Rao, 2006) were analysed through survey method and discussions using an evaluation tool. This gave us a checklist of chapterwise content areas and skills and subskills in the text. The checklist tool was used

to evolve a questionnaire with learning levels in a constructive way to assess the attainment of life skills by students. Each question in the questionnaire was pertaining to a major skill or a combination of two skills. The students were asked to answer 'Yes' or 'No' against each learning level. 'Yes' was scored as '1' and 'No' as '0' and 'No response' as '2'. The scores were taken totaled up for each life skill and analysed statistically.

The sample consisted of 30 students from PUC 2 and 22 students from PUC 1 of PUC I level. On an excel sheet, responses given by 21 students were recorded as 79 learning levels for the questionnaire as a whole. The life skills and the paired life skills were analysed statistically for their frequencies of occurrence. The same content based questionnaire was administered to PUC 1 and PUC 2, the frequencies of occurrence of these single/paired life skills were compared accordingly and analysed for mean, PLS attainment, standard deviation, t-test, standard error, ANOVA, etc. Each life skill of each school was compiled as one excel sheet for data and number of levels of learning pertaining to questions requiring that particular life skill were totalled as follows.

Results

There were 7 sheets with seven life skills and life skill pairs for PUC 1 and PUC 2.

Sheet No.	Life Skills	No. of Questions	Learning levels (No. of items)
I.	Decision-making + Critical thinking	3	11
II.	Critical thinking	6	28
III.	Effective communication	3	10
IV.	Creative thinking	2	10
V.	Effective communication + self-awareness	1	4
VI.	Decision-making	2	8
VII.	Problem-solving + critical thinking	1	5
Total			76

Descriptive Statistics for PUC 1 and PUC 2

Mean and standard deviation were studied for assessing individual variation in the attainment of life skills.?

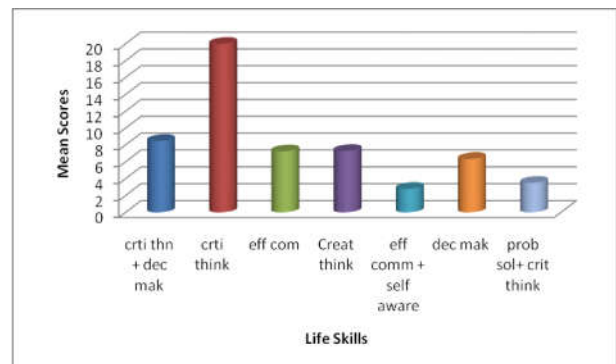
Group statistics for PUC 1 and PUC 2

	Mani-mum	Maxi-mum	Mean	Std. Deviation
Critical thinking+ Decision making (LS1)	3	11	8.48	1.904
Critical thinking (LS2)	6	28	20.98	4.323
Effective communication (LS3)	3	10	7.25	1.898

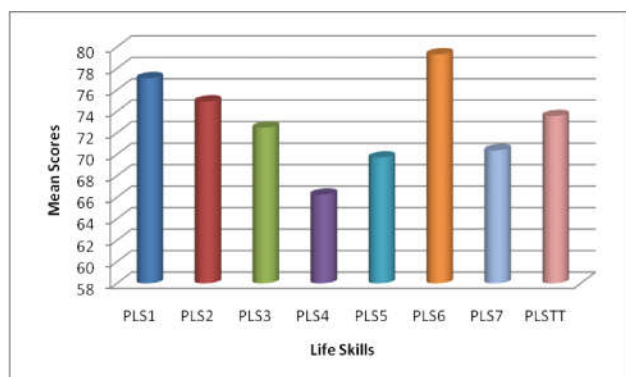
Creative thinking (LS4)	2	10	7.29	1.797
Effective communi-cation + Self-awareness (LS5)	1	4	2.79	.936
Decision making (LS6)	2	8	6.35	1.814
Problem solving + Critical thinking (LS7)	0	5	3.52	1.260
LSTT	18.00	76.00	56.6538	11.94577
PLS1	27.27	100.00	77.0979	17.31353
PLS2	21.43	100.00	74.9313	15.43828
PLS3	30.00	100.00	72.5000	18.98142
PLS4	18.18	90.91	66.2587	16.33554
PLS5	25.00	100.00	69.7115	23.39795
PLS6	25.00	100.00	79.3269	22.67154
PLS7	.00	100.00	70.3846	25.20205
PLSTT	23.38	98.70	73.5764	15.51398

N = 52

MEAN SCORES OF ATTAINMENT OF PAIRED/INDIVIDUAL LIFE SKILLS OF PUC 1 AND PUC 2



MEAN SCORES OF ATTAINMENT OF PAIRED/INDIVIDUAL LIFE SKILLS OF PUC 1 AND PUC 2



Hypothesis : There is no individual variation in the mean attainment of life skills.

The above two colleges for which the same content questionnaire (QI) was administered at the first year PU

level shows that out of the skill pairs/skills for the schools studied all the seven paired / individual life skills studied here viz., critical thinking and decision making, critical thinking, effective communication, creative thinking, effective communication and self awareness, decision-making, problem-solving, critical thinking have a standard deviation of the mean individual attainment of these skills less than 10, indicating thereby that there is less individual variation in the attainment of these paired individual life skills.

The descriptive statistics for the percent life skills for these two schools shows that the SD of the mean is more than 10 and therefore there is wide individual variation in the attainment of percent of individual and total life skills in these schools. Therefore the hypothesis is rejected.

GROUP STATISTICS FOR PUC 1 AND PUC 2

Percentage analysis of life skills was studied to assess total assessment of life skills in a group. t-test was done to test for equality of means and their significance.

Group statistics for PUC 1 and PUC 2(Q 1)

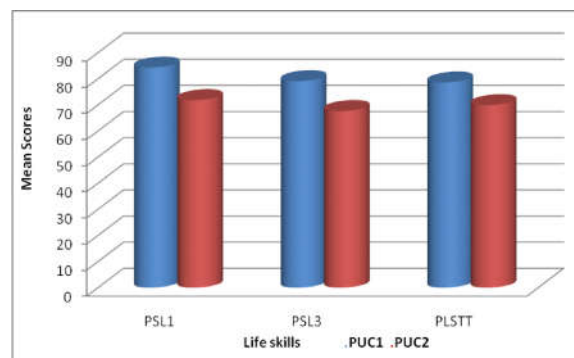
	School	Mean	S.D.	Std. Error Mean	T-Value	P-Value
PLS1	PUC 1	84.30	19.27	4.11	2.725	.009
	PUC 2	71.82	13.79	2.52		
PLS2	PUC 1	79.71	18.55	3.96	1.963	.055
	PUC 2	71.43	11.83	2.16		
PLS3	PUC 1	79.09	22.45	4.79	2.226	.031
	PUC 2	67.67	14.55	2.66		
PLS4	PUC 1	68.18	20.18	4.30	.724	.473
	PUC 2	64.85	13.02	2.38		
PLS5	PUC 1	76.14	29.36	6.26	1.728	.090
	PUC 2	64.85	13.02	2.38		
PLS6	PUC 1	85.23	22.70	4.84	1.633	.109
	PUC 2	75.00	22.02	4.02		
PLS7	PUC 1	72.73	29.95	6.39	.570	.571
	PUC 2	68.7	21.45	3.92		
PLSTT	PUC 1	78.57	18.77	4.00	2.050	.046
	PUC 2	69.91	11.3	2.12		

N (PUC1 & PUC

Hypothesis : There is no difference between PUC 1 and PUC 2 in the percentage attainment of life skills.

In PLS1 i.e. critical thinking and decision-making, attainment of PUC 1 had a mean of 84.30 which is higher than that of PUC 2 with a mean of 71.82. This was significant. ($t = 2.725$; $p = .009$)

Means Scores of PLS1, PLS3 and PLSTT of PUC 1 PUC 2



In PLS2, i.e. critical thinking, students of PUC 1 had an attainment mean of 79.71 which was definitely higher than that of PUC 2 but was not significant ($t = 1.963$; $p = 0.055$).

In PLS3, i.e. effective communication, students of PUC 1 had an attainment mean of 79.09 and this was higher than that of PUC 2 with an attainment mean of 67.67. This was significant ($t = 2.22$; $p = .031$).

In PLS4, i.e. creative thinking, students of PUC 1 had an attainment mean of 68.18 which was higher than that of PUC 2 with a mean of 64.85 but was not significant ($t = .724$, $p = .473$).

In PLS5, i.e. effective communication and self awareness, students of PUC 1 had an attainment mean of 76.14 which was higher than that of attainment of PUC 2 students with a mean of 65.0 but was not significant ($t = 1.728$, $p = .090$).

In PLS6, i.e. decision-making, students of PUC 1 had an attainment mean of 85.23 and this was definitely higher than that of PUC 2 students with a mean of 75 but was not significant ($t = 1.633$, $p = .109$).

In PLS7 i.e. problem-solving and critical thinking students of PUC 1 had an attainment mean of 72.73 which was definitely higher than that of PUC 2 students with an attainment mean of 68.67 but was not significant ($t = .570$, $p = .571$).

In PLSTT i.e. total of percent life skills of the two schools PUC 1 had a higher mean of attainment of 78.57 than that of PUC 2 with a mean of 69.91. This was significant ($t = 2.050$; $p = .046$). There are significant differences between PUC 1 and PUC 2 in attainment of critical thinking and decision making, effective communication and total percent Life Skills. Therefore , the hypothesis is rejected.

GROUP STATISTICS FOR GENDER-WISE DIFFERENCES FOR BOYS AND GIRLS OF PUC 1 AND PUC 2

Percentage analysis was studied to assess total

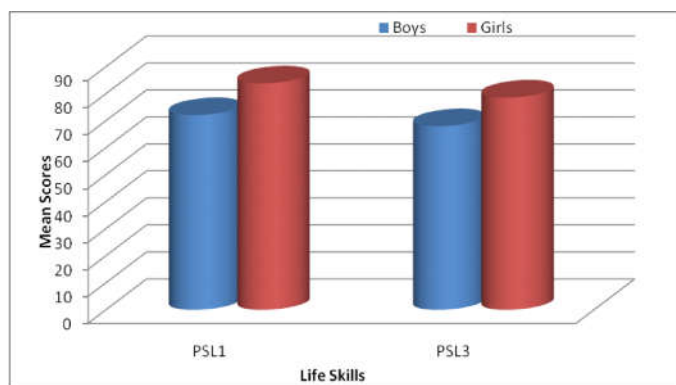
attainment of life skills in a gender (boys/girls) group. T-test was done to test for equality of means and their significance.

Group statistics for gender differences in PUC 1 and PUC 2 (Q1)

	Gender	Mean	S.D.	Std. Error Mean	T-Value	P-Value
PLS1	B	72.12	13.70	2.50	-2.547	.014
	G	83.88	19.2	4.18		
PLS2	B	72.38	11.79	2.15	-1.404	.166
	G	78.41	19.11	4.07		
PLS3	B	68.00	14.24	2.60	-2.059	.045
	G	78.64	22.95	4.89		
PLS4	B	65.45	12.94	2.36	-4.11	.683
	G	67.3	20.36	4.43		
PLS5	B	65.38	16.72	3.05	-1.409	.165
	G	75.00	29.88	6.37		
PLS6	B	75.83	22.55	4.11	-1.307	.197
	G	84.09	22.55	4.81		
PLS7	B	69.33	21.49	3.92	-.384	.729
	G	71.82	30.02	6.40		
PLSTT	B	70.61	11.54	2.11	-1.639	.108
	G	77.3	19.25	4.11		

N (Boys and girls 30 each)

Percent mean scores for gender-wise differences for PUC 1 and PUC 2



Hypothesis: There is no difference between boys and girls in attainment of life skills.

In PLS1 i.e. percent life skills for critical thinking and decision making, boys of the two schools have a significantly lesser attainment mean of 72.12 than that of girls with a mean of 83.88. This was highly significant ($t = -2.547$, $p = 0.014$).

In PLS2, i.e. percent life skills for critical thinking, girls have a higher attainment mean of 78.40 than boys with a mean of 72.38 and this is not significant ($t = -1.404$, $p = 0.166$).

In PLS3, i.e. percent life skills for effective communication, girls have a higher attainment mean of 78.64 as against a lower attainment mean of 68.00 for boys and this is significant ($t = -2.059$, $p = .045$).

In PLS4, i.e. percent life skills for creative thinking, girls have a higher attainment mean of 67.36 than boys with a mean of 65.45 and this was not significant ($t = -.411$, $p = .683$).

In PLS5, i.e. percent life skills for effective communication and self-awareness, girls have a higher attainment mean of 75.00 than boys with a mean of 65.38 and this was not significant ($t = -1.409$, $p = 0.165$).

In PLS6, i.e. percent life skills for decision-making, girls have a higher attainment mean of 84.09 than that of boys with a mean of 75.83 and this was not significant ($t = -1.307$, $p = .197$).

In PLS7, i.e. percent life skills for problem-solving and critical thinking also girls have a higher mean of attainment of 71.82 than boys with a mean of 69.33 but this was not significant ($t = -.348$, $p = .729$).

In PLSTT i.e. total percent of life skills, two girls showed higher mean of 77.63 of attainment than boys with a mean of 70.61 and this was not significant ($t = -1.639$, $p = .108$).

In brief, girls attain more life skills but this was not significant except in case of PLS1, i.e. critical thinking and decision-making skills. Therefore, the hypothesis is rejected.

DISCUSSIONS

The analysis was carried out based on the hypothesis that there is no difference between PUC 1 and PUC 2 in the percentage attainment of life skills. However, differences were significant between the two PU colleges in the attainment of critical thinking and decision-making; effective communication and total percent skills. PUC 1 had a higher mean of attainment than PUC 2.

Also, girls better boys in the attainment of life skills with higher means of attainment of life skills. This being very significant for critical thinking and decision-making skills.

Variables selected for the study were the levels of learning (PUC first year and PUC second year levels) and the gender (boys/girls) and based on this it can be concluded that attainment of life skills does not depend

- Continued on Page No. 25

KNOWLEDGE OF ENVIRONMENTAL STUDIES AMONG TRIBLE STUDENTS OF FIFTH STANDARD

✉ **Dr. Ramesh Kumar**, Research Scholar, DOS in Education, Manasagangotri, Mysore.

ABSTRACT

The present study envisaged to study the knowledge of environmental studies among the higher primary fifth standard tribal students of Chamaraajanagar District of Karnataka State. The data is collected on the sample of 610 by the tool 'Environmental Studies Test'. The results indicates that there is no significant difference found between the male and female students, but significant difference found between Ashram school and Government School Students.

INTRODUCTION

We already know that, man plays a vital role in the environment. His inventions in science and technological development lead to a sophisticated life for him on the earth which in turn becomes responsible for various environmental problems like disposal of wastes, pollution of air, water and land, deterioration of the habitat, contamination of rivers, lakes and seas and radioactive pollution. Thus, the relationship between human beings and the environment is reciprocal in nature. In other words, human beings are totally dependant on their environment for their existence. Hence, any change in the environment can easily affect the human society. In order to cope up with the natural problems, human beings should have some adaptive features. Therefore, environmental education should be taught to the child at his school stage, so that the environment can be protected from degradation. Hence, the primary aim of environmental education is to enable human beings to understand the complex nature of the environment and the biological, physical, social and cultural results due to its interaction. Children should be given direct experiences in the real environment, so that they may develop an awareness and appreciation of the factors and interrelationships operating in the environment, leading to an ecological understanding of man's oneness with his environment.

OBJECTIVES OF THE STUDY

In light of the context, the following objectives have been formulated.

1. To study the difference in the knowledge of environmental studies among male and female tribe students.
2. To study the difference in the knowledge of environmental studies among Ashram and Government School tribe children.

HYPOTHESES FORMULATED FOR THE STUDY

- 1) There is no significant difference in the knowledge of environmental studies between male and female students.
- 2) There is no significant difference in the knowledge of environmental studies between the students of Ashram and Govt. School.

SAMPLE SIZE

The sample of the study consisted of 610 tribal children (315 boys and 295 girls) and (302 Astram and 308 Government) studying in class V of Chamaraajanagar District of Karnataka State. The student were in the age group of 11-12 years. Purposive sampling technique was used for sample selection.

TOOL

The 'Environmental Studies Test' tool prepared by Researcher, was used to collect the date. This test is intended to measure the level of knowledge of environmental studies among tribal students' of fifth standard.

STATISTICAL MEASURE

Mean, Standard Deviation and 't'-test used for the analysis of the data.

PROCEDURE

All the sampled tribal students were requested to respond to each item of 'Environmental Studies Test'. The data so collected was analyzed by using above statistical measures.

Data Analysis and Interpretation

Hypotheses 1

There is no significant difference in the knowledge of environmental studies between male and female tribe students.

Table - 3.1 : Mean difference between male and female tribal students with respect to the knowledge of environmental studies.

Gender	Mean	S.D.	Std.error of Mean Diff.	t Value	df	Level of Significance
Male - 315	46.80	18.075	1.018	.344	608	.731
Female - 295	47.32	19.171	1.116			

The table 3.1 shows that the obtained t - value of 0.344 is less than the table value of 1.96 at 0.05 significant level for degree of freedom 608. Hence, the hypothesis is accepted and it is inferred that there is no significant difference in the knowledge of environmental studies between male and female students.

HYPOTHESES 2

There is no significant difference in the knowledge of environmental studies between the students of Ashram and Government School.

Table - 3.2. : Mean Difference between Ashram and Govt. School with respect to the knowledge of environmental studies.

Gender	N	Mean	S.D.	Std.error of Mean Diff.	t Value	df	Level of Significance
Ashram School	302	52.33	18.492	1.064	7.229	608	.000
Govt. School	308	41.87	17.225	.981			

The table 3.2 shows that the obtained t - value of 7.229 is greater than the table value of 1.96 at 0.05 significant level for degree of freedom 608. Hence, discard the null hypothesis and conclude that there is a significant difference between Ashram and Govt. School tribal students in the knowledge of environmental studies. Wherein Ashram School students has significantly higher mean value than Govt. School.

SUMMARY OF FINDINGS

Based on the analysis of data, the following finding were drawn.

- There is no significant difference between male and female tribal students in the knowledge of Environmental studies.

- There is a significant difference between Ashram and Government School students in the knowledge of environmental studies. Wherein Ashram school students has significantly higher mean score than the Government school.

CONCLUSION

The finding of the present study indicate that there is no significant difference between male and female tribal students with respect to the knowledge of environmental studies. But there is a significant difference found between the students of Ashram and Government school. Wherein, Ashram school students have higher significant mean score than the Government School. Hence it can be concluded that, the Nature and Facilities of residential school has a great impact on the higher level knowledge of environmental studies.

REFERENCES

- Agarwal J.C. : "Educational Research and Introduction" Agra Book Department, New Delhi (1996).
- Agarwal S.P and Agarwal J.C: "Environmental Protection Education and Development New Concept" - New Delhi (1996).
- Buch M. B. First to fifth Survey of Education Research" (Lii Edition)- Macmillan Co., New York (1998-92).
- Chandan R.C. : Environment Education-Kalyani publisher's New Delhi (1999).
- Karnataka Text Book Society (R). : "Environmental Studies"- Bangalore.
- Koul Lokesh : "Methodology of Educational research: Vikas Publishing house, Private Limited, New Delhi (1986).
- NCERT : Environment Orientation to School Education, Gita offset printer, New Delhi.



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'TEACHING OF COMPUTER EDUCATION IN BELGAUM DISTRICT' - A CRITICAL STUDY

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ABSTRACT

The present study envisaged to study the knowledge of environmental studies among the higher primary fifth standard tribal students of Chamarajanagar District of Karnataka State. The data is collected on the sample of 610 by the tool 'Environmental Studies Test'. The results indicates that there is no significant difference found between the male and female students, but significant difference found between Ashram school and Government School Students.

INTRODUCTION

To investigate the attitude of secondary school teachers who are teaching Computer Education, relatively a newer idea in Indian Education. The degree of success of this programme of Computer Education in secondary school is expected to be affected by the awareness and attitude of secondary school teachers towards Computer Education. Teacher plays an important role in the conduct of any Educational programme and the performance of the teachers is affected by their attitude towards the curriculum they are teaching.

OBJECTIVES

The present study was undertaken with the following general objectives in view.

1. To study the attitudes of graduate and postgraduate teachers of secondary schools towards the teaching of computer education and its dimensions i.e. Computer anxiety, computer confidence, computer interest.
2. To study the attitudes of inexperienced/junior and experienced/senior teachers of secondary schools towards the teaching of computer education and its dimensions i.e. Computer anxiety, computer confidence, computer interest.
3. To study the attitudes of science and arts teaching faculty teachers of secondary schools towards the teaching of computer education and its dimensions i.e. Computer anxiety, computer confidence, computer interest.

VARIABLES OF THE STUDY

- A) Dependent Variable :** Attitude of secondary schools teachers.
- B) Independent Variable :** Dimensions of computer Education - Computer anxiety, Computer confidence, Computer interest.

C) Moderate Variable : 1. Educational qualification (Graduates/Post Graduates).

2. Teaching Experience (Inexperienced/junior and experienced/senior).

3. Nature of Faculty (science and arts).

POPULATION AND SAMPLE : The population of the present study consisted of all the teachers those who have been working in Secondary schools. The total sample selected for the study comprises of 600 Secondary school teachers from different Secondary schools of Belgaum district.

TOOLS USED : Computer Attitude Scale (CAS) developed by Tahira Khatoon, Reader and Manika Sharma of Department of Education. Aligarh Muslim University, Aligarh is used.

STATISTICAL ANALYSIS

The researcher has used Differential analysis for the study.

DATA ANALYSES AND INTERPRETATION

HYPOTHESIS OF THE STUDY

1. There is no significant difference between graduate and postgraduate teachers of secondary schools towards the teaching of computer education and its dimensions i.e. Computer anxiety, Computer confidence, Computer interest.

See Table - 1

Table - 1

The mean and SD values of attitude towards computer education and its dimensions of teachers of secondary schools by **educational qualifications**.

2. There is no significant difference between inexperienced/ junior and experienced/senior teachers of secondary schools towards the teaching of computer

Variable	Summary	Graduate (n = 378)	Postgraduate (n = 222)	Total (n = 600)
Attitude towards teaching computer education	Mean	57.91	62.53	59.62
	S.D.	4.37	4.20	4.85
Dimensions				
Computer anxiety	Mean	12.85	13.68	13.16
	S.D.	2.66	2.11	2.50
Computer confidence	Mean	10.76	11.85	11.17
	S.D.	2.39	2.37	2.44
Computer interest	Mean	11.75	12.18	11.91
	S.D.	2.10	2.19	2.14

education and its dimensions i.e. Computer anxiety, Computer confidence, Computer interest.

See Table : 2

Table : 2

The mean and SD values of attitude towards computer education and its dimensions of teachers of secondary schools by **teaching experience**.

Variable	Summary	In experience (n = 324)	Experienced Senior (n = 27)	Total (n = 600)
Attitude towards teaching computer education	Mean	60.47	58.62	59.62
	S.D.	4.58	4.97	4.85
Dimensions				
Computer anxiety	Mean	13.2	12.62	13.16
	S.D.	2.30	2.26	2.50
Computer confidence	Mean	11.07	11.28	11.17
	S.D.	2.39	2.48	2.44
Computer interest	Mean	12.11	11.67	11.91
	S.D.	2.08	2.18	2.14

3. There is no significant difference between science and arts teaching faculty teachers attitude towards the teaching of computer education and its dimensions i.e. Computer anxiety, Computer confidence, Computer interest.

See Table : 3

Table : 3

The mean and SD values of attitude towards computer education and its dimensions of teachers of secondary schools by **nature of faculty**.

FINDINGS

- The post graduate teachers have higher attitude

Variable	Summary	Science faculty (n=250)	Arts Faculty (n = 350)	Total (n = 600)
Attitude towards teaching computer education	Mean	62.52	57.53	59.62
	S.D.	3.88	4.39	4.85
Dimensions				
Computer anxiety	Mean	13.80	12.70	13.16
	S.D.	2.26	2.57	2.50
Computer confidence	Mean	11.66	10.81	11.17
	S.D.	2.43	2.38	2.44
Computer interest	Mean	12.42	11.55	11.91
	S.D.	1.96	2.19	2.14

towards computer education compared to graduates teachers of secondary schools.

- The post graduates have higher attitude towards computer anxiety compared to graduate teachers of secondary schools.
- The post graduates have higher attitude towards computer confidence compared to graduate teachers of secondary schools.
- The graduate and post graduate teachers of secondary schools have different attitude towards computer interest.
- The inexperienced/juniors teachers have higher attitude towards computer education compared to experience /seniors teachers of secondary schools.
- The inexperienced/juniors have higher attitude towards education of computer anxiety compared to experienced/senior teachers of secondary schools.
- The inexperienced/juniors and experienced/senior teachers of secondary schools have similar attitude towards computer confidence.
- The inexperienced/juniors have higher attitude towards computer interest compared to experienced/senior teachers of secondary schools.
- The science faculty teachers have higher attitude towards computer education compared to arts faculty teachers of secondary schools.
- The science faculty have higher attitude towards computer anxiety compared to arts faculty teachers of secondary schools.
- The science faculty have higher attitude towards computer confidence compared to arts faculty teachers of secondary schools.
- The science and arts faculty teachers of secondary schools have different attitude towards computer interest.

RECOMMENDATIONS OF THE STUDY

1. There is an urgent need to train teachers of primary schools teachers regarding the pre-service and in-service training in computer education, only if they are trained they will be able to do justice to the infused computer education topics.
2. There is an urgent need to train teachers of secondary schools teachers regarding the pre-service and in-service training in computer education, only if they are trained they will be able to do justice to the infused computer education topics.
3. Periodical workshops and seminars should be arranged constantly for teachers on computer education by the department education of each state government and also central government.
4. The teachers must be supplied with various teaching aids for computer education such as guides, handbook, charts, maps, slides, films, photographs, and other audio-visual aids on environment.
5. Computer education must be relevant to the immediate computer of the learner in order to be useful and meaningful to him or her.
6. Extracurricular computer programmes for school children are a powerful tool for imparting computer education to children and should be increasingly encouraged. Such program should incorporate four elements. They are adventure, learning, grassroots action and links with both computer offenders and beneficiaries.

REFERENCES

- Dasgupta,
1. Agarwal J. E. : (1982) Educational Research. An introduction Aryan Book Depot, New Delhi.
 2. Shailaja H. M. & Manjunath T.P. : (2004) "A Study of the effect of sex age, teaching experience and qualifications of the professional attitude of teachers working in secondary schools", Karnataka University, Dharwad (Karnataka) Dharwad, Journal of Educational Research, 2004, Pp. 33-42.
 3. Selwyn, N. : (1997). Students' attitudes toward computers: Validation of a computer attitude scale for 16-19 education. Computer and Education, 28, 35-41.

- From Continued on Page No. 20

on the levels PUC first or second year (as the questionnaires were administered at the beginning of PUC second year session for PUC 2 due to experimental constraints and therefore could be taken as equal to PUC first year level). The attainment of life skills does not depend on gender either as the t and p values are not significant.

The differences wherever seen could be due to the socio-economic background of the students and pedagogical practices adopted.

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REFERENCES

- Butterworth, J. and Thwaites, G. : 2005. Thinking Skills. Cambridge University Press, The Edinburgh Building, Cambridge.
- Beyth-Marom, R; Fischhoff, B.; Jacobs, M.; and Furby, L.: 1989. Teaching Decision Making to Adolescents: A Critical Review. Carnegie Corporation of New York.
- CBSE Biology Syllabus : 2007-08. Senior Syllabus Curriculum, for academic session 2007-2008 of Class XI. CBSE, Preet Vihar, Delhi.
- I and II PUC Syllabi : 2007-08. Taken from Karnataka Biology-A Textbook for I year PUC(including Practical Manual and Competition Kit-New Syllabus), by Bhatti, K. and Mishra, C.S.(Eds.). Dinesh and Co., New Delhi.
- Meintzes, C.; Pretorius, Phil, C. : 2007. Studying Communication at Secondary School Level in South Africa in Preparing Learners for life: Exploring the Reality amongst Parents, Teachers and Learners. Paper presented at the Fourteenth International Conference on Learning, Johannesburg, South Africa.
- National Curriculum Framework : 2005. NCERT, Sri Aurobindo Marg, New Delhi.
- Rao, Sudhakar, M. ; 2006. A textbook of Preuniversity Biology. Vols. I&II (For the I&II second year of the Pre-University Course), 26th Revised Syllabus Edition. Published by Geetha Book House, K.R. Circle, Mysore.
- World Health Organisation (WHO) : 1997. Life Skills Education for children and Adolescents in Schools. Programme on Mental Health, Geneva.
- World Health Organisation (WHO) : 1994. Life Skills Education for children and adolescents in Schools. Division of Mental Health, Geneva.
- www.cbse.nic.int
- www.google.com

A STUDY OF EMOTIONAL INTELLIGENCE, CREATIVITY AND THEIR EFFECT ON ACADEMIC ACHIEVEMENT IN SCIENCE OF SECONDARY SCHOOL STUDENTS

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ABSTRACT

Emotions have two dimensions. The physiological dimension considers emotion as a complex state of human mind, involving bodily changes of wide spread nature such as breathing, pounding heart, flushed face, sweating palms, pulse rate, glandular secretions etc. The psychological dimension considers emotion as a state of excitement or perturbation marked by strong feelings. These emotions certainly cause for the academic achievement. Similarly the creativity also plays an important role in the academic achievement of students. Creativity is a mental process involving the generation of new ideas or concepts, or new associations between existing ideas or concepts. In this study the researcher has made an attempt to find out the effect of both emotional intelligence and creativity on the academic achievement in science of secondary school students. Results of the study revealed that, both of these variables had a significant effect on academic achievement.

INTRODUCTION

Life is education and education is life, because it is the process of development of an individual from birth to death. Man becomes a full human being through education and he alone could be educated, where as the lower beings like animals could be trained. Education certainly refines the sensitivities and perceptions which contribute much for the individual's growth and development for emotional cohesion. The emotional intelligence in this regard plays a vital role in the development of human personality. Emotional intelligence means abilities such as being able to motivate one self and persist in the face of frustrations, to control impulse and delay gratification, to regulate one's moods and keep distress from swamping the ability to think, to empathize and to hope. Modern education inculcates new ideas and thought patterns along the transmission of established cultural, social and moral values. It does not make an individual dogmatic, rather it makes him a rational human being capable of challenging the old values and generating new ones. Thus, creative function of education makes individuals receptive to change. Therefore today's classrooms must provide suitable learning environment in the school complex so that the emotional intelligence and creative abilities of the learner are properly nurtured.

EMOTIONAL INTELLIGENCE

Abilities such as being able to motivate one self and persist in the face of frustrations, to control impulse and delay gratification, to regulate one's moods and keep distress from stamping the ability to think, to empathize and to hope is known by emotional intelligence (Daniel Goleman).

Emotional intelligence links strongly with the concepts of love and spirituality, bringing compassion and humanity to work, emotional intelligence is a type of intelligence in which an affective essence is sprayed. This emotional intelligence is referred to the capacity of recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in us and in our relationships. This emotional intelligence includes five basic personal and social competencies such as i) Self - awareness, ii) Self - regulation, iii) Motivation, iv) Empathy and v) Social skills.

There are hundreds of emotions, along with their blends, variations and mutations. The categorization of the main emotions includes anger, depression, anxiety, happiness, love, surprise, disgust, embarrassment etc,. Ancient Indian sages spoke about the "NAVARASA's or Nine emotions. According to them the 'Navarasa's are the emotional feelings expressed by a person due to the stimuli he gets out of the situation. These nine rasa's are quite distinct in their expression. These are Shringara, Hasya, Karuna, Roudra, Veera, Bhayanak, Beebhatsa, Adbhuta and Shantha.

CREATIVITY

Creativity is referred to 'rare' and 'unique' talent in a particular field of endeavor (Ausubel). The distinctive aspect of creativity is divergent thinking, which is characterized by flexibility, originality and fluency. Flexibility is the unusual variety of responses to a task, originality is illustrated through the reality, factual idea produced and fluency simply refers to the quantity of output.

Creativity has been attributed variously to divine intervention, cognitive processes, the social environment,

personality traits and serendipity. It has been associated with genius, mental health and humor. Though the creative expression is something new or novel that is produced but newness or novelty does not necessarily imply to produce totally a new idea or an object which has never been experienced or produced earlier. To make the fresh and noble combination for the given separate elements or to reshape or rearrange the already known facts or principles or to bring a slight reform and modification in the previously known techniques, are as much the acts of creative expression as the discovery of a new element in chemistry or a new formula in mathematics. The only precaution for naming the expression as creative is that it should not be a mere repetition or reproduction of what has already been experienced or learned by an individual.

RATIONALE FOR THE STUDY

In the recent years emotional intelligence matters much in the field of psychology and educational endeavor. Mere considering the intelligence of the learner may not yield better academic performance but giving more consideration for the use of emotional intelligence by learner will certainly raise the academic performance.

Creativity is a construct rather a concept. It is obvious that creative children do perform better than others. Creativity is the ability of a child to produce something new and different as most of the individuals during childhood and adolescence period likes to involve in doing and playing with things. Children would learn by creating nuisance in the classrooms as they bring amazing results. Therefore, teachers must provide full freedom in the classroom for learners to respond. Creative learning is more joyous than any other type of learning. So, there must be ample opportunities to the children in the class rooms. Thus creativity surely influences academic achievement. To increase the vim and vigor of students in their academic performance, fostering creativity becomes very important.

In the light of the above discussion, it is evident that academic achievement is a dependent variable and influenced by emotional intelligence and creativity. Hence it was proposed to study the effect of emotional intelligence and creativity on the academic achievement of secondary school students in science.

STATEMENT OF THE PROBLEM

The problem was stated as "A study of emotional intelligence, creativity and their effect on academic achievement in science of secondary school students".

OBJECTIVES OF THE STUDY

- To study the relationship between emotional intelligence and academic achievement of secondary school students.

- To study the relationship between creativity and academic achievement of secondary school students.
- To study the main and interaction effect of emotional intelligence and creativity upon the academic achievement of secondary school students.

HYPOTHESES OF THE STUDY :

- There is no significant relationship between emotional intelligence and academic achievement of secondary school students.
- There is no significant relationship between creativity and academic achievement of secondary school students.
- There is no main and interaction effect of emotional intelligence and creativity upon academic achievement of secondary school students.

RESEARCH METHOD AND VARIABLES

This study adopted survey method and research. Emotional intelligence and Creativity were considered as independent variables, whereas academic achievement was considered as dependent variable.

SAMPLE OF THE STUDY

The study was conducted on a stratified proportionate random sample of 600 secondary school students studying in IX standard from 4 government, 4 private aided and 2 private un-aided high schools in Tumkur district of Karnataka. While selecting the sample due consideration was given to the factors like sex, type of school, medium of instruction and locality.

TOOLS USED IN THE STUDY

The following tools were used for data collection for the study.

1. Emotional Intelligence Inventory (EII) : This inventory was developed by Dr. Shailendra Singh. This inventory consists of 60 statements evenly distributed in 5 dimensions of emotional intelligence. There are twelve positively worded statements in each one these dimensions. These could be scored on 5 point scale that is strongly agree (SA), agree (A), Uncertain (U), Disagree (DA) and strongly disagree (SDA).

2. A New Text of Creativity (Verbal) : This test was developed by Dr. Roma Paul. This test consists of 68 items under three dimensions of creativity such as fluency, flexibility and originality. The scoring of all these items were done using the manual of the test.

3. An Achievement Test in Science : This test was constructed by the investigator to measure the academic achievement index of IX standard students in science subject. This test consists of 100 multiple choice type items.

These were scored by awarding one mark for each correct answer and zero mark for wrong answer.

Presentation of data : The data was analyzed with

Table 1 : Product moment correlation among Academic Achievement, emotional Intelligence and Creativity

Variables	Academic Achievement	Critical Thinking	Creativity
Academic Achievement	1.0000	0.348 **	0.406 **
Emotional Intelligence	0.348 **	1.0000	
Creativity	0.406 **		1.0000

** Significant and 0.01 level.

the help of three statistical techniques that is 't' - test, two way ANOVA and product moment correlation. The summarized data is presented in the following tables.

Table 2 : Mean, SD's and 't' values of Academic Achievement over emotional Intelligence and Creativity.

Variables	N		Mean	S.D.	't' value
Emotional Intelligence	Low	152	53.13	13.160	8.348**
	High	152	65.40	12.470	
Creativity	Low	151	53.43	14.001	9.485**
	High	151	67.68	12.023	

** Significant and 0.01 level.

Table -3 : Mean, SD's of Academic Achievement by these low, moderate, & high levels of Emotional Intelligence and Creativity

		Emotional Intelligence											
		Low			Moderate			High			Marginal Mean		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Creativity	Low	64	46.91	11.25	65	57.71	14.47	22	59.77	12.41	151	53.43	14.00
	Moderate	70	55.66	12.54	154	61.12	12.28	74	64.38	11.06	298	60.65	12.40
	High	18	65.39	10.01	77	67.27	11.44	56	68.96	13.37	151	67.68	12.02
Marginal Mean		152	53.13	13.16	296	61.97	13.01	152	65.40	12.47	600	60.60	13.68

Table - 4 : Summary of two - way ANOVA of Academic Achievement by Emotional Intelligence and Creativity

Source of variance	Sum of Square	DF	Mean sum of Squares	F-Value
Emotional Intelligence	4220.281	2	2110.140	14.018**
Creativity	8521.606	2	4260.803	28.304**
2 - way interaction	1110.760	4	277.690	2.911*
Error	88966.059	591	150.535	
Total	2315510.000	600		

** Significant at 0.01 level

* Significant at 0.05 level

RESULTS AND DISCUSSIONS

From Table 1, it is found that academic achievement, emotional intelligence and creativity are highly related to each other.

From table 2, it is observed that the mean difference between low and high levels of emotional intelligence is found to be 12.27 and 't' value 8.348 which is found to be significant at 0.01 level. Similarly the mean difference between low and high levels of creativity is 14.25 and 't' value 9.485 which is also found to be significant of 0.01 level. Hence it is concluded that students with high level of emotional intelligence and creativity performed better

in academic achievement than the students with low levels of emotional intelligence and creativity.

From tables 3 and 4 it is found that the analysis of variance of academic achievement by emotional intelligence and creativity found to be significant at 0.01 level with their F - values 14.018 and 28.304 respectively for their main effect. The F value 2.911. For two - way ANOVA for the interaction effect of emotional intelligence and creativity is found to be significant at 0.05 level. Thus it is concluded that both emotional intelligence and creativity had main and interactive effect on the academic achievement of students. It is also found that students with high levels of emotional intelligence and creativity have achieved better than those with moderate and low levels of emotional intelligence and creativity.

MAJOR FINDINGS OF THE STUDY

The following are the major findings of the study.

- There is a significant effect of emotional intelligence

SPATIAL ANALYSIS OF LARGE SCALE INDUSTRIES IN HAVERI DISTRICT

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ABSTRACT

India is an agricultural country and facing vicious problems such as density of population, fragmentation of land, less productivity, irregular rainfall, etc. This vicious circle of our country can be improved not only by agriculture, but also with improved industrialization. In Karnataka 11 districts are industrially backward and Haveri district is one of them. Haveri district is very rich in human resources and also possess medium capacity of local industrial resources. A planned industrial progress and development with modern thinking and advanced methods is the need of the day. Haveri district has food, cement, seeds and agro based large industries. This study is related only to the large scale industrial sector which is based on observations and analysis.

INTRODUCTION

Industries are concerned as main branches of economic geography. Industrial geography refers to the distribution of human resources and natural resources depending on the features of the related regions. Commercial and economic activities of the region also affect more on the development of industries.

Due to Industrial Revolution unprecedented changes have occurred in almost all human activities. Such changes are more prominent in an urbanization and migration characteristics. The spatial changes are often promoted by the availability of infrastructural facilities, technology and capital.

Haveri district is endowed with numerous natural resources viz. agriculture, poor minerals, water and human and other resources. The study area is one of the slowest districts in the industrial growth of Karnataka. However, the growth of industries seems to be meeting the needs of the region, under the pressure of socio-political factors without developmental plan. The economy of the district largely depends on agriculture, mineral resources, manufacturing and international market activities. The district total population enumerated in 2011 was 1598506, which forms the work force, and the remaining comes under the category of non-workers. Approximately 2 percent of the total population is engaged in industrial activities. During 2011-12, Haveri district has 11 large scale, 2 medium scale and 7169 small scale industries. Industrial sector is one of the important sectors of the economy.

STUDY AREA

The present study intends to discuss the resource base and pattern of development of industries in Haveri district, which lies in western sector of Karnataka state and lies between 75 01 to 75 50 east longitude and 14 19 to 15

09 north longitudes with the total geographical area of 4848 sq.kms. Haveri district comprises of seven talukas namely, Byadagi, Hanagal, Haveri, Hirekerur, Ranebennur, Savanur and Shiggaon. The district is surrounded in the north western part by Dharwad district, north eastern part by Gadag district, south eastern part by Davangere and Bellary district, south western part by Shimoga district and lastly western part by Uttara Kannada district.



1. To know the taluka-wise distribution of large scale industries.
2. To know the overall investment, production, employment & annual income of large scale industries.

DATA BASE AND METHODOLOGY

The present study aims at the geographical analysis of industrialization in the Haveri district in the post liberation. The overall data base for study is generated through the collection of secondary information and primary survey of a few large and medium scale units. Most of the secondary data have been obtained from various government offices, such as district industrial centre

(DIC). The information thus collected from various sources and general observations has helped in identifying the relative position of the district in the field of industrialization.

TALUKA-WISE DISTRIBUTION OF LARGE SCALE INDUSTRIES IN HAVERI DISTRICT

The economic development of any country largely depends on the effective growth of manufacturing industries. Science and technology helped man to fabricate raw materials into finished products. Many raw materials are not fit for human consumption. Therefore, there is a need for conversion. This transformation of commodities from one form into another is the essence of manufacturing or the secondary group of economic activities.

The Haveri district is newly formed from the state government. As far as the large scale industries in the district are concerned, there are 11 large scale industries have been registered, with an investment of Rs. 326.83 crore providing employment to 2725 persons. The statement of existing talukawise large scale industries in the district is shown in the following table.

Table-1 : Taluka-wise Distribution of Large Scale Industries with Employment in Haveri District

Sl. No.	Taluk	Registered Units	Per centage	Employment	Per centage	Investment (Rs.in Crore)	Per centage
1.	Haveri	3	27.27	1382	50.71	38.14	11.66
2.	Ranebennur	5	45.45	945	34.67	127.69	39.06
3.	Hirekerur	0	0.00	0	0.00	0	0.00
4.	Savanur	0	0.00	0	0.00	0	0.00
5.	Shiggaon	1	9.09	250	9.17	100.00	30.59
6.	Byadagi	2	18.18	148	5.43	61.00	18.66
7.	Hanagal	0	0.00	0	0.00	0	0.00
	Total	11	100.00	2725	100.00	326.83	100.00

Source: District Industrial Centre, Haveri

The above table shows that Ranebennur taluk has maximum number of industries i.e. 5 followed by Haveri with 3, Byadagi with 2 and Shiggaon with 1 industry.

The maximum investment of Rs. 127.69 crore is made in Ranebennur taluk which is 39.06 percent of total investment followed by Shiggaon with Rs. 100.00 crore which is 30.59 percent of total investment. The lowest investment is made in Haveri taluk i.e. Rs. 38.14 crore which accounts for 11.66 percent.

Maximum employment is provided in Haveri taluk for 1382 persons (50.71%) of total employment provided in the district, followed by Ranebennur taluk for 945 persons (34.67%) and in Shiggaon taluk for 250 persons (9.17%). The least employment can be found in Byadagi taluk i.e. 148 person (5.43%).

The maximum concentration of industries in the district is in Ranebennur taluk followed by Haveri taluk and Byadagi taluk. Shiggaon taluk has the least number of industries i.e. one industry.

As Ranebennur and Haveri talukas are situated on the Railway as well as National Highway, the transportation of raw materials and finished goods is easier, therefore there is well concentration of the industries.

LARGE SCALE INDUSTRIES IN HAVERI DISTRICT

The large scale industries are generally the service activities mainly concerned with the collection and distribution of goods. Therefore, they do not add to the volume of production, but make the goods, available to the consumer without adding much to the value of goods.

Haveri district is an agrarian and also newly formed district from Government of Karnataka. The district is governed with 11 large scale manufacturing industries which are working in entire district. The major industry in the district is based on food industry. The details regarding the large scale industries are provided in the following table.

Table - 2 : Details of Large Scale Industries in Haveri District

Sl. No.	Name of Industry	Location	Product	Production	Employment	Investment (in Crore)	Annual income (in Crore)
1.	M/s G.M Sugars and Energy Pvt. Ltd. (formerly known as Karnataka Food Sahakari Sakkare Karkhane Niyamith)	Sangur Village, Kulenur, Haveri	Sugar	2,50,000 Tonnes	722	7.47	3.75
2.	Koncor Colors Ltd (Food Industry)	Motebennur Village, Byadagi Tq., Haveri Dist.	Chilly Olliorogin	6,000 Metric Tonnes	60	11.00	0.25
			Marigold Jantophil Color	2,000 Metric Tonnes			

3.	Akay Flavours and Aromatics Pvt. Ltd.	Tadas Village, Byadagi Tq., Haveri Dist.	Chilly Product	--	88	50.00	0.35
4.	Gujarat Ambuja Exports Ltd. (Food Industry)	Hulsogi Village, Shiggaon Tq, Haveri Dist.	Agreo Based	--	250	100.00	0.75
5.	M/s. Fortune Cotton and Agro Industries	Gourampur Village, Haveri Tq, Haveri Dist.	Cotton and Seed	--	510	18.37	1.00
6.	Ramco Industries Ltd. (Cement Industry)	Karur, Ranebennur Tq, Haveri Dist.	Cement Sheets & Accessories	60.000 Tonnes	98	8.84	28.00
7.	Mahayco Seeds Ltd.	Kamdod, Ranebennur Tq, Haveri Dist.	Seeds	2,516.59 Metric Tonnes	67	6.00	4.13
8.	Synthite Industrial Chemicals Ltd.	Kumarapattanam, Ranebennur, Haveri	Extraction Oliorin from Dry Chilly	10.800 Tonnes	181	14.33	1.82
9.	Raitara Sahakari Noolina Girani Niyamit	Hanumana Matti, Ranebennur Tq, Haveri Dist.	Cotton Ginning	24.960 Spindles	391	24.16	1.01
10.	Syngenta India Ltd.	Asundi Haveri Dist.	Seeds	--	150	12.30	0.98
11.	Venkateshwara Hatcheries (P) Ltd. (Food Industry - Meat, Chicken)	Taredalli Village, Krishnapura Village, Itagi Post, Ranebennur Tq, Haveri Dist.	Slaughtering & Processing of Poultry	50,000 per day	208	74.36	97.00

1. M/S. G.M. SUGARS AND ENERGY PVT. LTD.

This large scale industry is located at Sangur village of Haveri taluk with an investment of Rs. 7.47 crores and produces 2,50,000 tonnes of sugar. There are 722 persons who are working in this industry. Molasses and other sugar products are also produced in this industry. The raw materials are collected from surrounding areas of about 5398 hectares of land throughout the district. It also has good transport network, which provides good marketing facility to the product.

2. THE KONCOR COLORS LTD.

This industry is situated in Motebennur of Byadagi taluk with an investment of Rs. 11 crore and produces 6000 metric tonnes of chilly oliorin and 2000 metric tonnes of marigold jointofill colours and it has 60 employees working in the factory. The raw material is obtained mainly from Byadagi and other talukas of the district. Chilly powder is produced and supplied all over Karnataka from this factory. Due to its good quality of product has gained good market throughout Karnataka and outside Karnataka.

3. AKAY FLAVOURS AND AROMATICS PVT. LTD.

This factory is located in the central part of Haveri district i.e. in Tadas village of Byadagi taluk with an

investment of Rs. 50 crores and 88 persons are employed in this factory. Flavours and aromatics of seasonal importance are produced here. The raw materials are obtained from local area. Main products such as chilly power and chilly oil are used as cosmetics in bakeries and its products are marketed in surrounding districts.

4. GUJARAT AMBUJA EXPORTS LTD

This is a large scale food industry located in Hulsogi village of Shiggaon taluk with an investment of Rs. 100 crores and 250 workers are working in this factory and it produces food stuffs of maize. The raw material is locally available. The products are highly hygienic and are exported to other countries.

5. M/S. FORTUNE COTTON AND AGRO INDUSTRIES

This factory is an agro based large scale industry and it is located in central part of Haveri district at Gourampur village with an investment of Rs. 18.37 crore. There are 510 persons working in this factory. This factory produces cotton seeds, cotton fibre and processed cotton, cushion materials, etc. The raw cotton is mainly obtained from Byadagi, Hanagal and Haveri talukas. Products of this factory have good market and demand in Bombay industries.

6. RAMCO INDUSTRIES LTD.

This is a large scale cement industry located at Karur village of Ranebennur taluk with an investment of Rs. 8.84 crore and it produces 60,000 tonnes. 98 persons are employed here. It depends on Raichur Thermal Power, Fire, Ash and Cement for raw materials. It produces products such as cement, cement pressure pipes, etc. which are marketed throughout India.

7. MAHAYCO SEEDS LTD.

This factory is located at Kamadol village of Ranebennur taluk with an investment of Rs. 6 crore. It produces 2516.57 metric tonnes and 67 workers are working here. Factory produces quality seeds for farmers to grow food and commercial crops. Seeds of cotton, maize, chilly, vegetables, fruits, etc. are produced and are marketed throughout Karnataka in sealed packets.

8. SYNTHITE INDUSTRIAL CHEMICAL LTD.

This industry is located in the south eastern part of Haveri district at Kumarapattanam village of Ranebennur taluk. It produces chilly oil and cosmetic for bakery items. There are 181 employees working in this factory. The raw materials are obtained from Byadagi taluk and Bellary district and its products are sold throughout Karnataka and Kerala state. It also exports its products to outside countries like Saudi Arabia, etc.

9. RAITARA SAHAKARI NOOLINA GIRANI NIYAMIT

This is an co-operative ginning and threads mill factory, which is located in Hanumanatti village of Ranebennur taluk with an investment of Rs. 24.16 crore and it produces 24,960 spindles per year. There are 391 persons who are working in this factory. It is a cotton based ginning and threads mill industry. It exports its products to outside countries such as China and Korea.

10. SYNGENTA INDIA LTD.

This factory is located in the central part of Haveri district at Kumarapattanam of Ranebennur taluk with an

investment of Rs. 12.30 crore and there are 150 persons employed in this factory. It produces high quality seeds of vegetables, cotton, maize and jowar crops. The raw materials are obtained from surrounding areas.

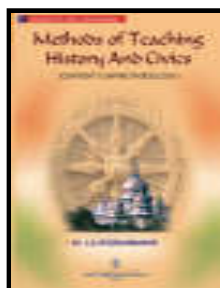
11. VENKATESHWARA HATCHERIES (P) LTD.

This industry is located in south eastern part of Haveri district at Taredalli village of Ranebennur taluk with an investment of Rs. 74.36 crore and it is employed with 208 workers. It mainly produces meat and chicken. The raw materials are obtained from locally available domestic livestock. Its products are exported to regional as well as international level.

CONCLUSION

Haveri district has a number of useful and flourishing large scale industries such as food, seeds, cotton, agro based, etc. It is very important to review the entire contents of the study in brief, to highlight the drawbacks to draw the conclusion for manufacturing industries and while large-medium units are located in less number in the district i.e. Ranebennur and Haveri talukas. Their main problems are lack of credit facilities, old technological methods and equipments, lack of transportation facilities for supply of raw materials, difficulties in the marketing of products, labour, etc. Both state and central governments have taken several steps to solve the problems of industrialists by taking necessary measures for the development of large scale industries in the district. However, for the survival of Haveri district and its people, the industrial sector will have to grow and provide resources to the district and employment opportunities for the better living of its people. The government and public have to adopt helpful and friendly attitudes towards prospective industrial entrepreneurs. Vast scope can be expected for industrial activities in Haveri district.

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

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ABSTRACT

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 girl students of 9th standard have different logical thinking operation in mathematics i.e. observation; the students of 9th standard belongs to different castes (SC/ST, OBC and GM) have similar logical thinking operation in mathematics i.e. observation; the boy and girl students of 9th standard belongs to different castes (SC/ST, OBC and GM) have similar logical thinking operation in mathematics i.e. observation. The boy students of OBC caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste. The girl students of SC/ST caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste. The girl students of GM caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste.

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;

CODING

"Literally a man is what he thinks the incarnation of what he thinks and the way he speaks and writes for, conceptualization is impossible without language." (Louis, et.a. 1967) Mathematics is unique for its language and symbolism. So its study can be made easy through of the students a awareness of the relationship between his thinking and his writing. For example instead of saying that the square of the sum of two terms is equal to the sum of the square of the first term, square of the second term and double the product of the terms, we can simply write $(a+b)^2 = a^2 + 2ab$. Coding is the operation of thinking which helps to assign symbols for objects and ideas. Some of the important symbols are; greater than ($>$) less than ($<$); angle ($\angle$); parallel lines ($\parallel$); congruence ($=$); similar ($\sim$), etc.

COMPARING

It is the simplest way for a teacher to stimulate thinking to ask the students to compare things to discern likeness and differences. Discernment may be understood as the acquisition of standards which in turn results from exposure and exploration. As opportunities for comparisons are increased, the bases for judgement are broadened (Louis, et.al' 1967).

Examples are comparison of different number system different types of graphs, geographical figures, etc.

CLASSIFICATION

It can be conceived as an extension of comparing in which one looks for similarities and differences. When enough similarities are found, grouping is possible. Grouping themselves may be compared and Put into even larger systems. Through this operation students will learn that groupings are possible on several levels with varying degrees of precision.

For example, a set of number can be classified into different ways like natural numbers, integers, even or odd numbers, prime and unprimed, cardinal and ordinal, rational and irrational, etc.

OBSERVATION

Information acquired through senses is called Observation. Senses are the first and most basic mechanism for gathering information and observation depends on the sense data. It is the process of determining the likeness and differences in single object that vary in their physical characteristics as, detectable by any of the senses. Observation is something which the student perform at regular intervals rather than something which the teacher does for the students.

By observing the graph one may be able to locate the points also though observation identification of different types of angles, prisms, pyramids and other geometrical figures are possible. This operation leads to comparison, classification, inferences, etc.

SUMMARIZING

Summarising is more than putting together a series of steps, or recounting and reporting what has taken place. It is discern and to evaluate what is significant and what is insignificant. (Louis, et.al 1967).

Titling, inventing captions, organizing data are forms of summarizing. For example, a picture, diagram, chart or graph is displayed and children asked to solicit the titles. Also, students may be working on a problem or attempting to apply principles to new situations. After they have concluded, work on the problem, they summaries the series of steps that they have taken towards the solution.

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 chall2

REVIEW OF RELATED LITERATURE

Donga and Molia (1998) conducted and experimental study on

The effect on metacognitive process on learning process in mathematics.

Sample of the study was sixty six students of standard IX. The results of the study pointed out that the learning process used by the group taught through met cognitive process programme is better than used by the group taught conventional teaching programme.

Krupa (1998) in her study of thinking operations in physics and the factors affecting it of the secondary school students on a sample of seven hundred students of IX standard of Kottayarn district showed that thinking operations do not distribute equally at different levels of distribution.

In the above studies, different aspects related to thinking operation in mathematics are discussed. However et al.(1994), Suja Sara (1995), Donga et al (1998), had studied about metcognitive process in mathematics. While

Schell et al (1993) studied the integration of mathematics with other Science and Technology as a basis for thinking operations other than in mathematics was investigated by Latha (1996) and Kurpa (1998) in geography and physics respectively. Hence in the present study, it was decided by the investigator to study the thinking operations in mathematics among the students of secondary schools.

OBJECTIVES

For the present study the following objectives were framed

1. To study the Interaction effect of gender (boys and girls) on logical thinking operation in mathematics i.e., observation
2. To study the Interaction effect of caste (SC/ST, OBC and GM) on logical thinking operation in mathematics i.e., observation.

HYPOTHESES

1. There is no Interaction effect of gender (boys and girls) on logical thinking operation in mathematics i.e., observation
2. There is no Interaction effect of caste (SC/ST, OBC and GM) on logical thinking operation in mathematics i.e., observation.

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

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

Description of the Samples

		Total Students
Gender	Boys = 200	400
	Girls = 200	
Caste	SC/ST = 050	400
	OBC = 150	
	GM = 200	
Attitude	Low Attitude Secondary School Students = 206	400
	High School Secondary School Students = 194	

Tools

RESULTS

Hypothesis : There is no interaction effect of gender (boys and girls) and caste (SC/ST, OBC and GM) on logical thinking operation in mathematics i.e. observation

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

Table-1: Results of two way ANOVA with interaction design i.e. gender (boys and girls) and caste (SC/ST, OBC and GM) on logical thinking operation in mathematics i.e. observation

SV	Degrees of freedom	Sum of squares	Mean sum of squares	F-value	p-value	Signi
Main effects						
Gender (A)	1	4.4804	4.4804	5.0553	0.0251	<0.05, S
Caste (B)	2	1.1667	0.5833	0.6582	0.5184	>0.05, NS
2-way interaction effects						
A x B	2	6.4467	3.2233	3.6370	0.0272	<0.05, S
Error	394	349.1867	0.8863			
Total	399	361.2803				

The result of the above table clears that

- The boys and girls students of 9th standard have different logical thinking operation in mathematics i.e. observation.
- The students of 9th standard belongs to different castes (SC/ST, OBC and GM) have similar

logical thinking operation in mathematics i.e. observation.

- The boy and girl students of 9th standard belongs to different castes (SC/ST, OBC and GM) have similar logical thinking operation in mathematics i.e. observation.

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 - 2 : Pair wise comparison of interactions of gender (boys and girls) and caste (SC/ST, OBC and GM) on logical thinking operation in mathematics i.e. observation by Tukeys multiple post hoc procedures

Treatment groups	Corresponding means		p-value	Signi.
a1b1- a1b2	3.8800	4.4667	<0.05	S
a1b1- a2b1	3.8800	4.6000	<0.05	S
a1b1- a2b3	3.8800	4.4600	<0.05	S

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

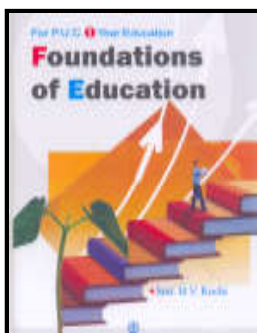
- The boy students of OBC caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste.
- The girl students of SC/ST caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste.
- The girl students of GM caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste.

DISCUSSION AND 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. observation; the students of 9th standard belongs to different castes (SC/ST, OBC and GM) have similar logical thinking operation in mathematics i.e. observation; the boy and girl students of 9th standard belongs to different castes (SC/ST, OBC and GM) have similar logical thinking operation in mathematics i.e. observation. The boy students of OBC caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste. The girl students of SC/ST caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste. The girl students of GM caste have significant higher mean of logical thinking operation in mathematics i.e. observation as compared to the boy students of SC/ST caste.

REFERENCES

- **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.
- **Korthagen F. A. J. :** (1993) 'Two modes of reflection', Teaching & Teacher Education 9, (3), 317-326.
- **Sfard A. :** (1998) On two metaphors for learning and the dangers of choosing just one. Educational Researcher, 27(2), 4-13.
- **Stigler J. & Hiebert J. :** (1999) The teaching gap : Best ideas from the world's teachers for improving education in the classroom. New York: Free Press.



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AN IMPACT OF JOB SATISFACTION AND ATTITUDE TOWARDS THE PROFESSION OF SECONDARY SCHOOL TEACHERS OF DHARWAD DISTRICT

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ABSTRACT

In the present study an attempt has been made to study an impact of job satisfaction and attitude towards the profession and Secondary school teacher. 250 teachers of secondary school in Dharwad district used for sample and job satisfaction scale and Ahluwalia's Teacher Attitude Inventory (ATAI) tools were used for data collection and one way analysis of variance. Students unpaired t-test, Karl Pearson product moment coefficient of correlation, Simple linear regression used for data analysis. The study revealed that graduated teachers have higher job satisfaction than the post graduated teachers of secondary school. Graduated teachers have higher attitude towards the profession than the post graduated teachers of secondary school.

Job satisfaction is a general attitude resulting from various specific attitudes to job factors: social factors, monetary factors, group relationships etc. Thus the job satisfaction is the result of various attitudes of the employee which he holds towards his job and related factors. The job satisfaction significantly contributes to employee, productivity and morale. The organizations that take care of developing individual attitudes among the employee which contributes to job satisfaction will be benefited substantially. Hence several authors have concentrated on this aspect and developed a number of meanings and concepts were also developed on this.

Work occupies an important place in the life of man. It is a major social class, suitability of work therefore is very important for job satisfaction and the general mental health of the individual. The worker can remain contented only if his needs gain satisfaction. This has necessitated a careful and scientific investigation into the determinants of job satisfaction.

Attitude involves some knowledge of a situation. However, the essential aspects of the attitude are found in the fact that some characteristics feelings or emotion is experienced, and as we would accordingly expect, some definite tendency to action is associated. Subjectively, then, the important factor is the feeling or emotion, objectively it is the response or at least the tendency to respond. In any case, attitudes are important determinants of behavior. If we are to change them we must change their emotional components. In order to do this, we may find it useful to change the knowledge and the ideals related to them. Frequently the acquisition of new knowledge with reference to a person, a political party, or an idea will result in arousing new emotional associations.

Before considering what teachers can do to develop favorable attitudes in case of the sadistic person who enjoys making people suffer can be used to illustrate the fact that people use other to satisfy their own personality needs. One person may like teaching because it provides, an opportunity to dominate, to give order, and to be the judge, jury, and chief executioner! Another may feel the need of excessive affection or admiration and use the pupils to obtain it. These are of course, not wholesome attitudes. They may even sometimes illustrate the mechanism of reaction. They may even sometimes illustrate the mechanism of reaction formation, in which the behavior is just the opposite of the attitude.

VARIABLES

Independent variables

- i. Job satisfaction
- ii. Gender (Male-Female)
- iii. Qualification of the Teacher (Graduate and Postgraduate)

DEPENDENT VARIABLES

Attitude towards profession

OBJECTIVES OF THE STUDY

The objectives of the study are stated as follows :

1. To study the effect of Secondary school Teachers job satisfaction on their attitude towards profession.
2. To study the effect of job satisfaction of male Teachers on their attitude towards profession.
3. To study the effect of job satisfaction of Female Teachers on their attitude towards profession.
4. To study the effect of Educational Qualification of Secondary school Teachers job satisfaction on their attitude towards profession.

HYPOTHESES OF THE STUDY

1. There is no significant difference between the Secondary school Teachers job satisfaction on their attitude towards profession.
2. There is no significant difference between the Male Secondary School Teachers Job satisfactions on their attitude towards profession.
3. There is no significant difference between the Female Secondary School Teachers Job satisfactions on their attitude towards profession.
4. There is no significant difference between the Educational Qualification of Secondary School Teachers Job satisfactions on their attitude towards profession.

TOOLS USED

In the study the use of primary data has been made. The data been collected by using the following Tools.

- 'Job Satisfaction Scale'
- 'Ahluwalia's Teacher Attitude Inventory' (ATAI)

SAMPLE

To make the study worthwhile, a representative random sample of the total population has been taken. The investigator personally visited each selected secondary schools in Dharwad district for collection of job satisfaction and attitude towards profession. The various scales were administered to 250 teachers of secondary schools.

STATISTICAL TECHNIQUES USED

Data received from the secondary school teachers were scored according to given in the manual. The scores of job satisfaction and attitude towards profession of secondary school teachers were taken. These scores were used for different types of statistical techniques.

- One way analysis of variance
- Students unpaired t-test
- Karl Pearson's product moment coefficient of correlation
- Simple linear regression

PROCEDURE OF DATA COLLECTION

For the purpose of collecting data the tool was personally administered by the researcher to the respondents. The Job Satisfaction Scale and Ahluwalia's Teacher Attitude Inventory(ATAI) was administered to Secondary School Teachers.

ANALYSIS AND INTERPRETATION

The Mean, Standard Deviation and 't' value Analysis of Variance (ANOVA) were competed for different groups on the basis of scores of teachers on their responses. The

main purpose of applying 't' test was to find out the significant difference between the mean scores of 2 groups. The completed 't' value was referred to 't' distribution table to determine whether the obtained 't' value was statistically significant or not. Based on this, the significant differences, if any between the two groups were determined. This aided the investigator to accept or reject the framed null hypothesis. Also the other analysis done by using Correlation and Regression analysis.

LIMITATIONS OF THE STUDY

The present study has the following limitations :

1. The research has collected data only from secondary schools.
2. The research was able to collect data for only 50 secondary school teachers. Who are teaching social science subject.
3. The scope of the study is limited to Dharwad district.
4. The researcher has used only job satisfaction scale and teacher attitude inventory as a tools for collection of data.

DATA ANALYSES AND RESULTS

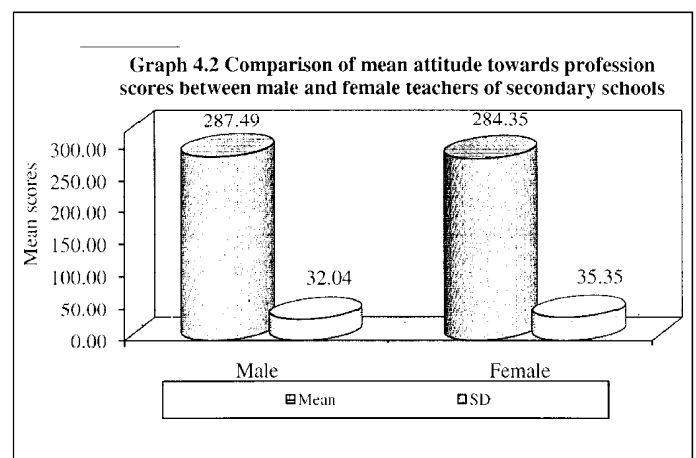
Descriptive and Differential statistics

Hypothesis : There is no significant difference between male and female teachers of secondary schools with respect to their attitude towards profession.

To achieve this hypothesis, the unpaired t-test was applied and the results are presented in the following table.

Results of t-test between male and female teachers of secondary schools with respect to their attitude towards profession

Gender	n	Mean	SD	t-value	p-value	Signi.
Male	114	287.4912	32.0432	0.7294	> 0.05	NS
Female	136	284.3529	35.3506			



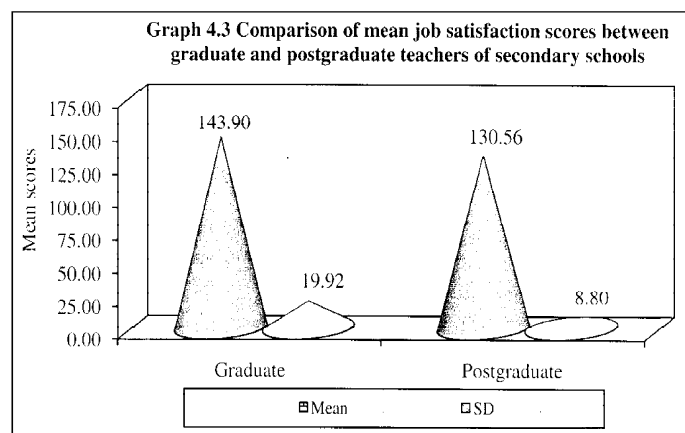
The results of the above table and Graph (The mean and SD of attitude) clearly shows that, the male and female teachers of secondary schools do not differ statistically significant with respect to their attitude towards profession ($t = 0.7294$, $p > 0.05$) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the male and female teachers of secondary schools have similar attitude towards profession.

Hypothesis : There is no significant difference between graduate and post graduate teachers of secondary schools with respect to their job satisfaction.

To achieve this hypothesis, the unpaired t-test was applied and the results are presented in the following table.

Results of t-test between graduate and postgraduate teachers of secondary schools with respect to their job satisfaction

EQ	n	Mean	SD	t-value	p-value	Signi.
Graduate	178	143.9045	19.9195	5.4693	< 0.05	S
Postgraduate	72	130.5556	8.8044			



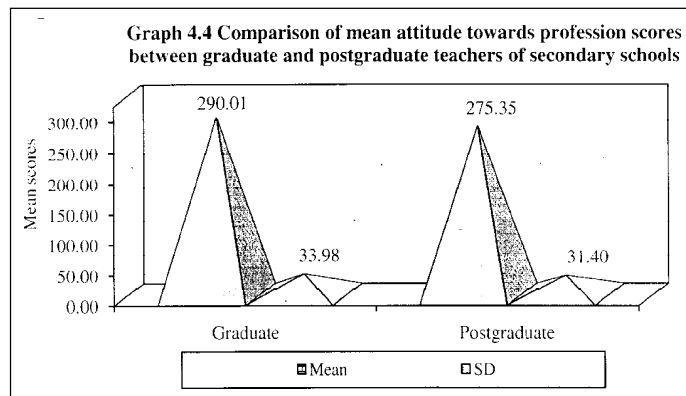
The results of the above table and Graph (The mean and SD of job satisfaction) clearly shows that, the graduate and post graduate teachers of secondary schools differ statistically significant with respect to their job satisfaction ($t = 5.4693$, $p < 0.05$) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the graduate teachers have higher job satisfaction scores (143.90) compared to post graduate teachers (130.56) of secondary schools.

Hypothesis : There is no significant difference between graduate and post graduate teachers of secondary schools with respect to their attitude towards profession.

To achieve this hypothesis, the unpaired t-test was applied and the results are presented in the following table.

Results of t-test between graduate and post graduate teachers of secondary schools with respect to their attitude towards profession

EQ	n	Mean	SD	t-value	p-value	Signi.
Graduate	178	290.0056	33.9763	3.1556	< 0.05	S
Postgraduate	72	275.3472	31.3989			



The results of the above table and Graph (The mean and SD of attitude) clearly shows that, the graduate and post graduate teachers of secondary schools differ statistically significant with respect to their attitude towards profession ($t = 3.1556$, $p < 0.05$) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the attitude toward teaching profession of graduate teachers have greater mean scores (290.01) compared to postgraduate teacher mean scores (275.35) of Secondary schools.

CORRELATION ANALYSIS

The relationships were obtained between job satisfaction and attitude towards profession by using the Karl Pearson's correlation coefficient in total, male, female, graduate, postgraduate, juniors, seniors, different types of management (Government, aided and unaided) teachers of secondary schools and results are explained in the following section.

Hypothesis: There is no significant difference between the Secondary school Teachers job satisfaction on their attitude towards profession.

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

Results of correlation coefficient between job satisfaction and attitude towards profession of secondary school teachers

Variable	Attitude towards profession of teachers			
	Correlation coefficient (r)	t-value	p-value	Signi.
Job Satisfaction	0.2429	3.9428	< 0.05	S

The results of the above table clearly shows that, a significant positive association was observed between job satisfaction and attitude towards profession of secondary school teachers ($r=0.2429$, $p<0.05$) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, as job satisfaction increases (decreases) with increase (decrease) in the attitude towards the profession of secondary school teachers.

Hypothesis : There is no significant difference between the Male Secondary School Teachers Job satisfaction on their attitude towards profession.

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

Table 4.12 : Results of correlation coefficient between job satisfaction and attitude towards profession of secondary school male teachers

Variable	Attitude towards profession of male teachers			
	Correlation coefficient (r)	t-value	p-value	Signi.
Job Satisfaction	0.2123	2.2996	<0.05	S

The results of the above table clearly shows that, a significant positive association was observed between job satisfaction and attitude towards profession of secondary school male teachers ($r=0.2123$, $p<0.05$) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, as job satisfaction increases (decreases) with increase (decrease) in the attitude towards the profession of secondary school male teachers.

Hypothesis : There is no significant difference between the Female Secondary School Teachers Job satisfaction on their attitude towards profession.

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

Results of correlation coefficient between job satisfaction and attitude towards profession of secondary school female teachers

Variable	Attitude towards profession of female teachers			
	Correlation coefficient (r)	t-value	p-value	Signi.
Job Satisfaction	0.2696	3.2404	<0.05	S

The results of the above table clearly shows that, a significant positive association was observed between job satisfaction and attitude towards profession of secondary school female teachers ($r=0.2696$, $p<0.05$) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, as job

satisfaction increases (decreases) with increase (decrease) in the attitude towards the profession of secondary school female teachers.

Hypothesis : There is no significant difference between the Educational Qualification (Graduate) of Secondary School Teachers Job satisfaction on their attitude towards profession.

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

Results of correlation coefficient between job satisfaction and attitude towards profession of secondary school graduate teachers

Variable	Attitude towards profession of graduate teachers			
	Correlation coefficient (r)	t-value	p-value	Signi.
Job Satisfaction	0.2264	3.0829	<0.05	S

The results of the above table clearly shows that, a significant positive association was observed between job satisfaction and attitude towards profession of secondary school graduate teachers ($r=0.2264$, $p<0.05$) at 0.05% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, as job satisfaction increases (decreases) with increase (decrease) in the attitude towards the profession of secondary school graduate teachers.

Hypothesis : There is no significant difference between the Educational Qualification (Postgraduate) of Secondary School Teachers Job satisfaction on their attitude towards profession.

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

Table 4.15 : Results of correlation coefficient between job satisfaction and attitude towards profession of secondary school postgraduate teachers

Variable	Attitude towards profession of Post graduate teachers			
	Correlation coefficient (r)	t-value	p-value	Signi.
Job Satisfaction	0.0331	0.2768	<0.05	NS

The results of the above table clearly shows that, a non significant positive association was observed between job satisfaction and attitude towards profession of secondary school postgraduate teachers ($r=0.0331$, $p>0.05$) at 0.05% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected.

REGRESSION ANALYSIS

The regression analysis was performed to assess the

influence of job satisfaction on attitude towards profession of total teachers, male , female , graduate , postgraduate , juniors , seniors , different types of management (Government, aided and unaided) teachers of secondary schools and the results were discussed in the preceding section.

Hypothesis: There is no significant difference between the Secondary school Teachers job satisfaction on their attitude towards profession.

To achieve this hypothesis, the simple linear regression technique has been applied and the results are presented in the following table.

Results of simple linear regression of Job satisfaction on attitude towards profession of teachers of secondary schools (Total)

Indpt. variable	Regression coefficient	SE of Regression coefficient	t-value	p-level	Signi.
Intercept	223.4110	15.9557	14.0020	<0.05	S
Job Satisfaction	0.4453	0.1129	3.9428	<0.05	S

The results of the above table clearly shows that, the Job satisfaction was found to be a significant positive influence on attitude towards profession (Regression coefficient = 0.4453, $p < 0.05$) of teachers of secondary schools. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the Job satisfaction is a significant predictor of attitude towards profession of teachers of secondary schools (total).

Hypothesis: There is no significant difference between the Male Secondary School Teachers Job satisfaction on their attitude towards profession

To achieve this hypothesis, the simple linear regression technique has been applied and the results are presented in the following table.

Results of simple linear regression of Job satisfaction on attitude towards profession of male teachers of secondary schools

Indpt. variable	Regression coefficient	SE of Regression coefficient	t-value	p-level	Signi.
Intercept	235.0249	23.0046	10.21664	<0.05	S
Job Satisfaction	0.3770	0.1639	2.2996	<0.05	S

The results of the above table clearly shows that, the Job satisfaction was found to be a significant positive influence on attitude towards profession (Regression coefficient = 0.3770, $p < 0.05$) of male teachers of secondary schools. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the Job satisfaction is a significant predictor of attitude towards profession of male teachers of secondary schools.

Hypothesis : There is no significant difference between the Female Secondary School Teachers Job satisfaction on their attitude towards profession.

To achieve this hypothesis, the simple linear regression technique has been applied and the results are presented in the following table.

Results of simple linear regression of Job satisfaction on attitude towards profession of female teachers of secondary schools

Indpt. variable	Regression coefficient	SE of Regression coefficient	t-value	p-level	Signi.
Intercept	213.1217	22.1767	9.6102	<0.05	S
Job Satisfaction	0.5059	0.15661	3.2404	<0.05	S

The results of the above table clearly shows that, the Job satisfaction was found to be a significant positive influence on attitude towards profession (Regression coefficient = 0.5059, $p < 0.05$) of female teachers of secondary schools. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the Job satisfaction is a significant predictor of attitude towards profession of female teachers of secondary schools.

Hypothesis : There is no significant difference between the Educational Qualification (Graduate) of Secondary School Teachers Job satisfaction on their attitude towards profession.

To achieve this hypothesis, the simple linear regression technique has been applied and the results are presented in the following table.

Table 4.24: Results of simple linear regression of Job satisfaction on attitude towards profession of graduate teachers of secondary schools

Indpt. variable	Regression coefficient	SE of Regression coefficient	t-value	p-level	Signi.
Intercept	234.4466	18.1925	12.8870	<0.05	S
Job Satisfaction	0.381	0.1252	3.0829	<0.05	S

The results of the above table clearly shows that, the Job satisfaction was found to be a significant positive influence on attitude towards profession (Regression coefficient = 0.3861, $p < 0.05$) of graduate teachers of secondary schools. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the Job satisfaction is a significant predictor of attitude towards profession of graduate teachers of secondary schools.

Hypothesis : There is no significant difference between the Educational Qualification (Postgraduate) of Secondary School Teachers Job satisfaction on their attitude towards profession.

To achieve this hypothesis, the simple linear regression technique has been applied and the results are presented in the following table.

Results of simple linear regression of Job satisfaction on attitude towards profession of postgraduate teachers of secondary schools

Indpt. variable	Regression coefficient	SE of Regression coefficient	t-value	p-level	Signi.
Intercept	226.0414	19.9095	11.3534	<0.05	S
Job Satisfaction	0.4177	0.1428	2.9245	<0.05	S

The results of the above table clearly shows that, the Job satisfaction was found to be a significant positive influence on attitude towards profession (Regression coefficient = 0.4177, $p < 0.05$) of postgraduate teachers of secondary schools. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the Job satisfaction is a significant predictor of attitude towards profession of postgraduate teachers of secondary schools.

FINDINGS OF DIFFERENTIAL ANALYSIS

1. Graduate Teachers are high on Job satisfaction compared to Postgraduate Teachers of Secondary schools.
2. Graduate Teachers are high on attitude towards profession compared to Postgraduate Teachers of Secondary schools.

FINDINGS OF CORRELATION ANALYSIS

1. A Significant Correlation was estimated between Job satisfaction and attitude towards profession of Secondary School Teachers. When Teachers are high on attitude towards profession, they are high on Job satisfaction.
2. A Significant Correlation was estimated between Job satisfaction and attitude towards profession of Secondary school Male Teachers. When Male Teachers are high on attitude towards profession, they are high on Job satisfaction.
3. A Significant Correlation was estimated between Job satisfaction and attitude towards profession of Secondary school Female Teachers. When Female Teachers are high on attitude towards profession, they are high on Job satisfaction.
4. A Significant Correlation was estimated between Job satisfaction and attitude towards profession of Secondary school Graduate Teachers. When

Graduate Teachers are high on attitude towards profession, they are high on Job satisfaction.

FINDINGS OF REGRESSION ANALYSIS

1. The Job satisfaction will be a significant predictor of attitude towards profession of teachers of secondary schools.
2. The Job satisfaction will be a significant predictor of attitude towards profession of male teachers of secondary schools.
3. The Job satisfaction will be a significant predictor of attitude towards profession of female teachers of secondary schools.
4. The Job satisfaction is a significant predictor of attitude towards profession of graduate teachers of secondary schools.
5. The Job satisfaction will be a significant predictor of attitude towards profession of postgraduate teachers of secondary schools.

CONCLUSIONS

Based on the discussion of the findings of the study, the following conclusions could be drawn Male and female teachers of secondary schools have similar job satisfaction and attitude towards profession. Graduated teachers have higher job satisfaction than the post graduated teachers of secondary schools. Graduated teachers have higher attitude towards profession than the post graduated teachers of secondary schools.

REFERENCES

- **Dr. S. K. Mangal** : "Education Psychology" Tandon publication, Ludhiana.
- **Ram Nath Sharma** : "Guidance and counseling"
- **Best J. W.** (1971) "Research in Education" .New Jersey Prentee Hall.
- **Garrett H. E.** : (2006)"statistics in Psychology and Education", Surjeet Publication.
- **Koul Lokesh** : (1984) "Methodology of Educational research" New Delhi viks Publishing House Pvt.Ltd.



EFFECT OF MENTAL HEALTH ON ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS

✍ **Dr. Saroja S. Gudadur** Asst. Professor S. M. Bhandari and Rath College, Guledagudda.

Mental health influence the all activities of a human being in case of school children, their mental health play a great role in their growth and all aspects of development including their mental development and learning.

The role of schools in the emergence of mental health problems has hitherto been generally overlooked, However, there is now a growing recognition that schools also have a significant role in producing mental problems, leading to abnormal development of children.

The basic factors on which mental health of any individual depends is on his heredity, physical health status, home school and community influences. Mental Health is also determined by the way our basic needs are satisfied specially in our basic needs are satisfied specially in our childhood. Needs like physical, organic and egoistic needs, the need for security, through love and affection, need for recognition as a person of worth and importance, the need to grow independently, the need to play and the need to belong to a group are Considered as indispensable.

The word "Mental" usually implies something more than the purely cerebral functioning of a person; it also stands for his emotional affective status, the relationships he establishes with others and a quite general quality that might be called his equilibrium in his socio-cultural context. Similarly, "Health" refers to more than physical health; it also connotes the individuals intrapsychic balance, the fit of his psychic structure with the external environment, and his social functioning. It is not surprising that the combination of two such terms produces an elastic and ambiguous concept. In common usage "Mental health" often means both psychological well-being mental illness.

DEFINITIONS OF THE TERMS USED IN THE STUDY

Mental Health.

Conceptual Definition

According to bernord (1970) "Mental Health may be described as that which permits an individual to realize the greater success which his capacities will permit, with a maximum satisfaction to himself and the social order and a minimum of friction and tension,;

OPERATIONAL DEFINITION

For the purpose of this study MENTAL HEALTH of students of secondary school what is measured by K .C. Baby prasanna and Merey Abraham (1984) Mental Health status scale.

ACADEMIC ACHIEVEMENT CONCEPTUAL DEFINITION

Knowledge attained and skills developed in the school subjects usually designated by test scores or by marks assigned by teachers or by both (Good; carter, 1950)

OPERATIONAL DEFINITION

The academic achievement in this study refers to the marks obtained in each subject by the students in IX standard in their annual examination of April 2012. The Question paper in all the school subject were common as the selected schools were managed by the single management

STATEMENT OF STUDY

EFFECT OF MENTAL HEALTH ON ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS

OBJECTIVES

1. To find out the difference between boys and girls of IX standard students with respect to mental health scores
2. To find out the difference between boys and girls of IX standard students with respect to total academic achievement

HYPOTHESES FOR THE STUDY

- 1) There is no significant difference between boys and girls of IX standard students with respect to mental health.
- 2) There is no significant difference between boys and girls of IX standard students with respect to total academic achievement.

SIGNIFICANCE OF THE STUDY

Study on mental health of pupils is important because it effects on class room learning and development of desirable behaviour.

DELIMITATIONS OF THE STUDY

The scope of study was confined to IX standard students studying in Bijapur District of Karnataka state. The scope was further restricted to only area like mental health of the students. The present study covered the achievement of the students only in school subjects like Kannada, Hindi, English, Mathematics, science, and social science.

The study covered both boys and girls studying in IX standard during 2011-12

PLAN AND PROCEDURE

The investigation being a descriptive research, survey method was used to collect data.

SAMPLING DESIGN

Random sampling method was used for the selection of schools and purposive sampling method was used for the selection of IX standard students of the secondary schools.

A total of 400 secondary school students studying in IX standard were selected from a secondary schools. out of these 216 boys students and 184 girls students were selected.

DATA GATHERING TOOLS

To test the hypotheses formulated for the study data was collected with help of Mental health states scale by K.C Baby prasanna and Merey Abrahm(1984)

STATISTICAL TECHNIQUES USED

The statistical techniques used for the analysis of data were differential statistics with students t-test between boys and girls of IX standard secondary school students with respect of mental health on academic achievement of subjects like kannada, English, Hindi, Mathematics, Science, and social studies.

ANALYSIS AND INTERPRETATION

In order to presents the results systematically the hypothesis wise interpretation has been given by using the results presented in tables.

Hypothesis : 1 There is no significant difference between boys and girls of IX standard students with respect to mental health scores.

To test this hypothesis, the students t-test was applied and the result are preserved in the following table.

Table - 1 : Results of Mean, SD, t-test between boys and girls of IX standard students with respect to mental health

Sl. No.	Sex	N	Mean	S.D.	t-value	p-value	Signi
1.	Boys	216	81.8981	11.9253	-2.17769	<0.05	S
2.	Girls	184	84.5707	12.5944			

OBSERVATION AND INTERPRETATION.

It is observed form the above table that the boys and girls of IX standard students differ statistically significant with respect to their mental health scores ($t = -2.1769, P < 0.05$) at 0.5% level of significance. Hence, the null hypothesis No.1 is rejected and alternative hypothesis is accepted. Here table value is smaller (1.97) than calculated value. It means that, Here In another word the girls students have higher mental health than the boy students of secondary schools. The mean scores of mental health are also presented in the following diagram.

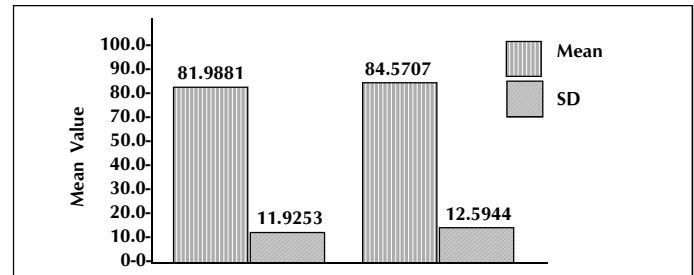


Figure No. 1

Comparison between boys and girls of IX standard students with respect to mental health.

Objective No 2 to find out the difference between boys and girls of IX standard students with respect to total academic achievement scores.

Null Hypothesis No.2

There is no significant difference between boys and girls of IX standard students with respect to total academic achievement scores.

To test this hypothesis, the student's t-test was applied and the results are presented in the following table.

Table - 2.

Sl. No.	Sex	N	Mean	S.D.	t-value	p-value	Signi
1.	Boys	216	374.6369	54.6696	0.0918	<0.05	S
2.	Girls	184	374.2880	58.1269			

Observation and Interpretation

It is observed form the above table that the boys and girls of IX standard students do not differ Statistically significant with respect to their total academic achievement scores ($t = 0.0618, P > 0.05$) at 0.5% level of significance. Hence, the null hypothesis No 2 is accepted and alternative hypothesis is rejected. It means that, Here table value is smaller (1.97) than calculated value. In another words the girl students have similar total academic achievement compared to the students. The mean scores of total academic achievement are also presented in the following diagram.

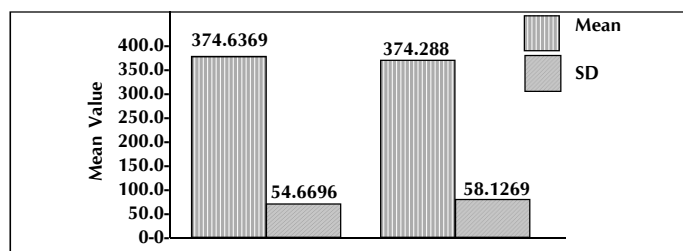


Figure No .2

Comparison between boys and girls of IX standard students with respect to total academic achievement

FINDINGS

- 1) There is a significant difference between boys and girls of IX students standard, with respect to their mental health.
- 2) There is no significant difference between boys and girls of IX standard students with respect of their total academic achievement.

CONCLUSIONS AND DISCUSSION

Conclusions have been drawn from findings of the study keeping in mind the objectives of the study.

The reason that could be attributed to this may be the girls students have high adaptability, sense of security, positive attitude towards self and others and social conformity than boys students. Hence, the girls students have high mental health than the boys students of IX standard.

This conclusions is in conformity with Indian study of magotra H P. (1982)

For second result, the reason that could be attributed to this may be the girls and boys students participates in all curricular and co-curricular activities and having equal opportunities in all affairs of school and getting same result in studying subjects like kannada, English, Hindi, Mathematics, science, and social studies.

This conclusion is in conformity with Indian study of George E . I.(1966).

RECOMMENDATIONS

- 1) The latest thinking regarding education is that it is essentially a process of human resources development. It can be achieved only by promoting mental health of the students. Mental health should be the primary goal.
- 2) For promoting mental health and academic achievement the teachers should be trained in guidance and counseling.

- 3) Co-curricular activities should be given importance to promote the mental health of students.
- 4) Mental health and academic achievement are positively related just as good mental health facilities academic achievement so, does academic achievement favorably affect the students mental health.

REFERENCES

- Anand S. P. (1988) RCE Mental Health Scale. Indian Educational Review, Vol.23(1), pp.41-47,
- Anand , S. P. (1989), Mental Health of High School Students. Indian Educational Review ., Vol.24(2),pp14-24
- Basamallik T. and Bhattacharya K. P. (1980) Views on Mental Health: A Preliminary Study Psychometric Research and Service Unit. ISI Calcutta.
- Bernard H. W. (1970) Mental Health in the Classroom. New York: McGraw-Hill
- Chakraborty, A. (1990) Social Stress and Mental Health: A Social Psychiatric field study of Calcutta.Delhi:Sage.
- Magotra H. P. (1982) Mental Health as a Correlate of Intelligence, Education, Academic Achievement and Social Economic Status. Ph.D.Edu., Jammu University.

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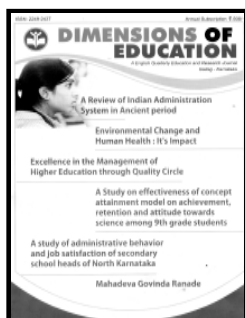
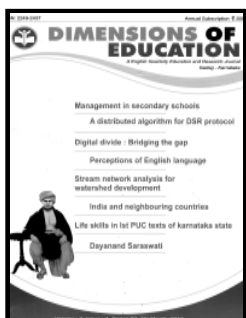
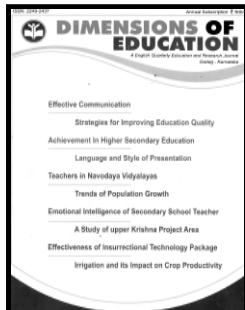
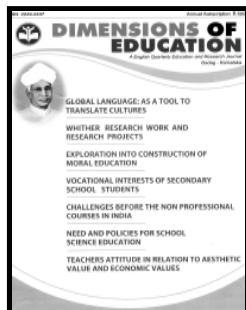
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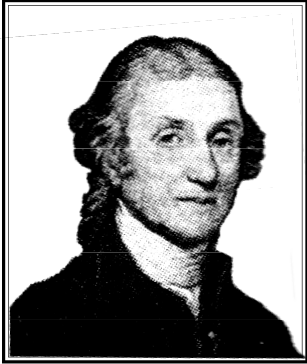
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JOSEPH PRIESTLY

(1733-1804)

✍ **Dr. N. B. Kongawad**, Principal, Sana College of Education , Hubli.



“Our external ideas furnish the materials of all the ideas of which are ever possessed.” Stating that all associations were not good ones and the development must not be left to chance, he wrote, “We must learn to cherish and improve good ones, check and root out such as are mischievous and immoral.”

Joseph Priestly is more famous for his discovery of oxygen than as a person who had incalculable influence on English education. However, the fact is he was a great educator, who used his practical experiences of teaching to support the several educational treatises that he produced. In effect, his influence on English education was deep.

Born in 1733 in Yorkshire, England, Priestly lived at a time when England, which was till then dominated and governed by the aristocracy, landed gentry and the Church, was facing a sort of social, economic, intellectual and cultural change. With the ushering in of urbanization and industrialization, the middle classes comprising businessmen and industrialists began to challenge the domination of the ruling classes. The most assertive of this group were the Unitarians, a small group that attracted many leading industrialists and progressive intellectuals. According to Unitarians, humanity and its environment was best understood by reason, experience and experiment, but they fused religion with philosophy and science in the firm belief that science was a way of understanding the rationality of God's creation and that only good could result from open and free enquiry. This group backed the American Revolution and the French Revolution. Priestly was one of the main pillars of the Unitarians.

The Unitarians believed that education at two of the leading universities of England, Oxford and

Cambridge had become ossified with comparative inactivity and increasing reliance on the ruling classes. Priestly had his education at one of the dissenting academies, Daventry Academy, which offered some of the best higher education of the day. The public and grammar schools that took care of the educational needs of the upper classes of the society were generally at a low ebb at that time, thanks to the competition from private schools that offered modern curriculum, sometimes including mathematical and vocational subjects.

While the established universities of England were relegated, because of their curriculum that was anachronistic, the academies set up by the Unitarians hogged the limelight because these institutions had a curriculum that was more modern and led the students to examine all sides of every issue. Priestly, who became one of the chief driving forces behind these academies helped to expand the curriculum of the most liberal of them and developed an outstanding education that foreshadowed developments in the university education of the future. Priestly's efforts were not confined to higher education. He immensely influenced schooling too. In fact, he ran a coeducational school from 1755 to 1761 and successfully introduced lessons in both practical science and modern history. That he was one of the most effective teachers of history is evident from the fact that he prepared the much published Chart of Biography that contributed to his election as a Fellow of the Royal Society. He was also keen on seeing that his students wrote plain English correctly and fluently. To facilitate this, he published Rudiments of English Grammar in 1761. That Priestly was an effective teacher is vouched by the fact that he was invited to become a tutor in languages at the Warrington Academy, the flagship of dissenting education.

At the Warrington Academy, Priestly developed an interest in experimental philosophy and wrote a much sought after book Introduction to Electricity for Beginners. In tune with the dissenting educationists of his time, he took a fancy for John Locke, and was tremendously

influenced by David Hartley's Observation in Man. In this work, Hartley propounded that all complex or intellectual ideas arise from simple ones, which in turn arise from the impressions made by external objects upon the several parts of our bodies. These sensations, when often repeated, according to Hartley, give rise to ideas and a series of sensations. These sensations, if associated with each other sufficiently, have such a power over the corresponding ideas that any one of the sensations when impressed alone shall be able to excite in the mind the ideas of the rest.

Priestly believed that all people should receive the same education. Stating that women were not inferior in mental capacity, he advocated a far higher level of education for women, as development is dependent on education. He further said that women who were well educated intellectually and morally would be well fitted to educate and influence others and to obtain an independent living if need be. Though he championed the cause of women education, he had no firm ideas on the education of the poor. Though he was concerned about their welfare he was worried about the State control over education and thus of uniformity of thought and belief, instead of variety of freedom.

To inculcate clear knowledge to students, Priestly asked the teachers to illustrate and exemplify their ideas and to welcome student's questions and observations. He emphasized the use of visual aids such as models, and any ways that would help students to understand the full significance of their work. In science, he stressed on experiments as the key to understanding and clear thinking and emphasized that all studies should be adapted to the age and capacity of the learner.

Priestly once asked his students to help obtain "The flourishing state of science, arts, manufactures and commerce; the extinction of wars; the abolishing of all useless distinctions. In short, to make government as beneficial as possible. Let the Liberal Youth be everywhere encouraged to study the nature of government and attend to everything that makes nations secure and happy."

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on the academic achievement in science of secondary school students.

- There is a significant effect of creativity on the academic achievement in science of secondary school students.
- There is a significant main and interactive effect of emotional intelligence and creativity on the academic achievement in science of secondary school students.

CONCLUSION

The study revealed that students with high levels of emotional intelligence and creativity will certainly perform better in academics. Students who are capable of coping up with their emotional ups and downs, and who makes use their creative skills do better in their academic performances. Therefore the teachers in the classroom must give due consideration to spray the emotional essence and for tapping the creative skills in a proper way. Hence there lies the responsibility upon the teachers to shift away from the conventional means of teaching strategies to activity oriented learning strategies.

REFERENCES

- **Abraham H. (1991)** : Emotional Intelligence in Organization, A conceptualization. New York, Bantan Books.
- **Bar - on, R. and Parker J.D.A. :** (2000) The hand book of Emotional Intelligence. San - Francisco, Jessey - Bass
- **Gardner H. :** (1993) Frames of Mind, The Theory of Multiple Intelligence. London, Fontana Press.
- **Goleman Daniel :** (2004) Emotional Intelligence and Working with Emotional Intelligence. London, Bloomsbury Publishing Plc.
- **Getzels and Jackson :** (1969) Creativity and Intelligence Explorations of the Gifted Students. New York. John Wiley and Sons Inc.
- **Gray S.G. :** (1996) Creative Thinking, Reasoning and Problem Solving in Skinner CE : Educational Psychology. New Delhi, Practice Hall of India Pvt Ltd.
- **Guilford G.P. :** (1967) The Nature of Human Intelligence. New York. Mc Graw Hill.
- **Kapadia Mala :** (2004) Emotional Intelligence : A work book for Beginners. New Delhi, BPI (India) Pvt. Ltd.
- **Mayor J.D. & Salovey P. :** (1997) What is Emotional Intelligence? In P. Salovey & D. Sluyter, Emotional Development and Emotional Intelligence. Implications for Educators. New York, Basic Books.
- **Nathan S Washton :** (1967) Teaching Science Creatively. London. Saundere Science Teaching Series.
- **Paramesh :** (1972) Creativity and Personality. Madras. Janata Binding and Publishing Co.
- **Passi B.K. :** (1973) Definition of Creativity, Verbal and Non - Verbal Agra, National Psychological Corporation.
- **Sing Dalip :** (2008) Emotional Intelligence at work : A Professional Guide. 3rd Ed. New Delhi, Sage Publications.

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