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एन सी ई आर टी
NCERT

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CONTENTS

EDITOR'S NOTE

Now, after seven long years of development of the National Curriculum Framework-2005, there is a need to look back and see what this framework suggests and to what extent we could understand its perspectives.

The National Curriculum Framework (NCF)-2005 observes a deep disquiet about several aspects of our educational practice: (a) the school system is characterised by an inflexibility that makes it resistant to change; (b) learning has become an isolated activity, which does not encourage children to link knowledge with their lives in any organic or vital way; (c) schools promote a regime of thought that discourages creative thinking and insights; (d) what is presented in the name of learning and transmitted in the name of learning in schools bypasses vital dimensions of the human capacity to create new knowledge; (e) the "future" of the child has taken centre stage to the near exclusion of the child's "present", which is detrimental to the well-being of the child as well as the society and the nation.

In view of correcting this distortion of the education system where the stress is on memorising and not on understanding, the document proposes five guiding principles for curriculum development and the teaching-learning process.

- Connecting knowledge to life outside the school,
- Ensuring that learning is shifted away from rote methods,
- Enriching the curriculum to provide for overall development of children rather than remain textbook centric,
- Making examinations more flexible and integrated into classroom life and,
- Nurturing an overriding identity informed by caring concerns within the democratic polity of the country.

NCF highlights the need for recognising child as a natural learner and knowledge as the outcome of the child's own activity. This is the context in which child's construction of knowledge gains meaning. Construction of knowledge implies that curricula, syllabi and textbooks should enable the teacher in organising classroom experiences in consonance with the child's nature and environment, and thus providing opportunities for learning to all children. Teaching should aim at enhancing children's natural desire and strategies to learn. Knowledge needs to be distinguished from information, and teaching needs to be seen as a professional activity, not as coaching for memorisation or as transmission of facts. Activity is the heart of the child's attempt to make sense of the world around him/

her. Therefore, every resource must be deployed to enable children to express themselves, handle objects, explore their natural and social milieu, and to grow up healthy.

In view of making school education an inclusive and meaningful experience for children, alongwith the efforts to move away from a textbook culture, curriculum must enable children to find their voices, nurture their curiosity–to do things, to ask questions and to pursue investigations, sharing and integrating their experiences with school knowledge–rather than their ability to reproduce textual knowledge. Learning to question received knowledge critically, whether it is found in a textbook or other literary sources in their own environments can be built by encouraging learners to comment, compare and think about elements that exist in their own environment. Learning tasks are to be designed to ensure that children will be encouraged to seek out knowledge from sites other than the textbook, in their own experience, in the experiences of people at home in the community, in libraries and other sites outside the school.

Learning also occurs through interaction with the environment around, things and people through language. Interaction with teachers, with peers as well as those who are older and young can open up many more rich learning possibilities. Learning in the company of others is a process of interacting with each other and also through the learning task at hand. This kind of learning is enriched when schools enroll children from different socio-economic background. Efforts are also required for preparing more learning resources for children, especially books and reference materials in regional languages, for school and teacher reference libraries, and for access to interactive rather than disseminative technologies. The NCF also focuses on the importance of multiplicity and fluidity of options at the senior secondary level, discouraging the entrenched tendency to place children in fixed streams, and limiting opportunities of children, especially from the rural areas.

Further, the thrust placed on systemic reforms in teacher education, work education and examination is quite visible. In view of changing role of teacher as per the shift in the perception of knowledge and learning, the document advocates for reformulated teacher education programme that places thrust on the active involvement of learners in the process of knowledge construction, shared context of learning, teacher as a facilitator of knowledge construction, multidisciplinary nature of knowledge of teacher education, integration of theory and practice dimensions, and engagement with issues and concerns of contemporary Indian society from a critical perspective. The document identifies productive work on pedagogic medium in school curriculum from pre-primary to senior secondary stages. It pointed out that vocational education and training to be conceived and implemented in a mission mode. Examination reform constitutes the most important systemic reform measure to be taken for curricular renewal and to find a remedy for the growing problem of psychological pressure that children and their parents feel, especially in Classes X and XII. NCF-2005 suggests a shift from

content-based testing to problem solving skills and towards shorter examinations as well as examination with a flexible time limit. The document also views that the prevailing typology of questions needs a radical change. Strategies to enable children to opt for different levels of attainment should be encouraged to overcome the present system of generalised classification into 'pass' and 'fail' categories.

In short, the curriculum framework initiative outlines a shift, to moving away from rote methods, connecting knowledge to life outside school, enriching the curriculum to provide for overall development of children rather than remain textbook centric and making examination more flexible and integrated to classroom life. Reorienting the curriculum to this end must be among our highest priorities, informing the preparation of teachers, the annual plan of schools, the design of textbooks, learning materials and teaching plans, and assessment and examination pattern.

This issue of JIE includes articles on various aspects of education concerning access, equity, quality and sustainability.

Editorial committee of JIE feel that it is now time to reflect, to what extent we are successful in achieving the goals of NCF-2005. JIE invites research papers and reflective articles related to the implementation aspects of NCF-2005 from the stakeholders who are concerned with school education for the next issue which will be a special issue on curriculum concerns.

Academic Editor

Do You Know?

According to the 86th Constitutional Amendment Act, 2002, free and compulsory education for all children in 6-14 year age group is now a Fundamental Right under Article 21-A of the Constitution.

EDUCATION IS NEITHER A PRIVILEGE NOR FAVOUR BUT A BASIC HUMAN RIGHT TO WHICH ALL GIRLS AND WOMEN ARE ENTITLED

Give Girls Their Chance !

Himalaya Hai To Hum Hain[*]

Shekhar Pathak**

Abstract

Himalaya, the 'abode of snow', is home not only to an imposing geological, geographical and biological diversity but also to a multitude of flourishing human concerns and constructs, from hunting-gathering communities to agrarian societies and their settled cultures and also to the economies of modern trade and industry. This mountain system has created and fostered a distinctive ecology that has become the basis for the existence of the natural as well as cultural systems of South Asia.

From the east to the west, Himalaya stands like a sub-continental arc. In so many ways, it is dynamic and active. Its rich soil and water, in spreading abundant fertility and life in the plains below, transform the landscape extraordinarily; its communities and their cultures, which arrived and settled over millennia, have in turn spread out in many directions.

Our existence is deeply connected to and with Himalaya. Its geology teaches us about continental drift, the disappearing of the Tethys Sea, or about its own rising height, still ongoing, or yet about its own peculiar nature, which hides within itself dynamism, tension and many earthquakes. With its peaks, passes, glaciers, moraines, rivers, confluences, gorges, pastures and meadows, its geography is akin to the myriad faces of nature. Its glaciers and rivers have been called the water towers for the 21st century. Its lofty peaks make a formidable barrier for the monsoons, resulting in heavy rainfall on the windward side. These mountains, indeed, produce and control the climate of South Asia.

The expanse of its vegetation and its forests are like green lungs that absorb the ever-rising atmospheric carbon. Its flora is the basis for a variety of medicines. Its wilderness has given natural expression and embodiment to a plethora of floral and faunal species, from birds, fish, and butterflies to Yarsha Gumba.[1] The abundance of raw material that it provides is the basis for mining,

* Written text of Rabindranath Tagore Fourth Memorial Lecture delivered on February 4, 2011 at RIE Bhubaneswar by Prof. Shekhar Pathak.

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metallurgical, oil, timber and drug industries. Its wilderness has been a meeting point for natural and spiritual energies, and within a broader cultural context, it is still the main attraction for pilgrims and tourists. The mighty snowy peaks, the grim passes and the forbidding glacial vistas fascinate and beckon the adventurers and explorers.

For these reasons, this mountain region, which is spread across many countries, is being rapidly encroached upon. This very day, the resources of Himalaya are being exploited. They are being destroyed in many different ways, and at an unsustainable rate, much beyond at which they could be naturally regenerated or re-established. Hydroelectric projects, mining, pressure on biodiversity, the out migration of mountain communities and finally the impact of globalisation, privatisation, consumerism and climatic changes are serious concerns, with deep implications on the future of the Himalaya; issues – and their various ramifications – need to be thoroughly and critically investigated.

The highest and most sacred mountain range of the earth has been hijacked by the incomplete model of development created by our political economy.

There is a need to understand the fact that if Himalaya continues in its place, well-protected and cared for, it will also sustain our own lives and cultures. Only then will Himalayan communities live on and so will its birds and animals. Without Himalaya neither is poetry possible nor can the dialectics of nature be understood. Without it, we will not be able to fathom our own lives. So, if many people today are crying Himalaya Hai to Hum Hain (our existence is possible only if Himalaya is there) and expressing their anger through different forms of resistance, we must realise that this is a moment of reckoning and a chance to right the wrongs.

Himalaya was a source of inspiration for poet—philosopher Rabindranath Tagore too. He travelled to various regions of Himalaya and wrote some of his finest poems and stories there. On the 150th anniversary of the poet-teacher, taking due inspiration from his poem 'Where the Mind is Without Fear', we must take a hard look at the distressing condition of Himalaya and make a serious attempt to find answers to the questions of its health and harmony.[2] *Through this lecture, an attempt is being made to understand the ecological, social, economic, cultural, spiritual and geo-political importance and centrality of Himalaya.*

The Himalaya: Creation and Creator

Even if we do not pursue the seemingly fantastic geological tale of the Indian sub-continent's drift from far away Africa towards Asia, and how the eventual collision of the two landmasses led to the formation of the mighty Himalaya around 50 million years ago, let us still broach open the present dialogue by considering the single biggest outcome of that upheaval, the Himalaya as it stands athwart the long stretch from Afghanistan to Northern Myanmar with a complex geology and geography. This expanse of the Himalaya encompasses countries like Afghanistan, Nepal and

Bhutan, parts of Pakistan (Northern Areas), India (Jammu and Kashmir, Himachal, Uttarakhand, Darjeeling Hills, Sikkim, and the north-eastern states) and north-western Myanmar. Large regions of Tibet, today an autonomous province of China, are also part of the Himalayan complex.[3]

Kalidas's Devatatma and 'measuring rod of the earth' and Allama Iqbal's Faseele–Kishware–Hindustan is indeed the backbone of a living body, rising from the plains to the north, transforming itself into a variety of hills and mountains. These are like the ribs of the Himalaya. Numerous micro-societies and cultures live in the thousands of its valleys. These areas are extraordinarily rich in mineral deposits and biodiversity. They are also home to the sources of three large river systems.

'What lay before where the Himalaya is today?' is indeed an interesting question. If it was the Tethys Sea then what was here before it? Was this all a natural consequence of the dynamics of the planet earth? Has the earth always kept changing its form? These questions take us back at least to how a part of Gondwanal and broke off from Africa and drifted to where the Indian subcontinent lies today.

While today, the Himalaya is being considered a natural–cultural heritage of all humanity, it has in fact vibrated and pulsated, rhythmically and perpetually, in the conscious as well as the sub-conscious minds of different Asian societies. This vibrant rhythm is born of the snowy peaks and lofty mountain ranges, which are ever a part of the huge expanse from the northern fringe of Sindhu-Ganga-Brahmputra plains to the plateau of Tibet.

This vibrant rhythm belongs to thousands of glaciers, to innumerable rocks—from the very weak to the very strong, and to the faults and thrusts that have developed across them (among these, MCT-Main Central Thrust, MBT-Main Boundary Thrust and THF-Trans Himadri Fault are already well known) as well as to the inherent geo-energy (manifest as earthquakes, landslides, volcanoes and thermal springs). It belongs to the lakes, streams, flora and fauna. To the human beings, who are creators and representatives of hundreds of communities, societies and their cultures. A number of religions and faiths have been nurtured here. Himalaya has also been an ideal place for mythological stories and dreams. Before getting bound up in the faiths and beliefs of humans, their political and economic systems, its vibrant rhythm is the expression of a highly dynamic geology, and a geography that still rises as it flows down.

The Asian societies share an ancient and deep bond with Himalaya. Various communities have witnessed myriad facets of the Himalayan landscape, cheerful or gloomy, lush green or barren, captivating or terrible. Few realise that Himalaya is not simply a lavish, seasonal retreat for the rich, nor solely a sanctuary for the pilgrim, an arena full of glory for the mountaineer, or the birthplace of mighty rivers, but it's also a region where several cultures and societies thrive in its natural diversity, and where the common humans are concerned about the preservation of their environment and traditions as well as for the betterment of their

lives. This abode of Gods belongs to the humans first, and to the Gods later. The humans founded and laid down their beliefs as well as their Gods upon this natural expanse. This is a much ignored fact, due to the mesmerising, almost hypnotic, beauty of Himalaya.[4]

Majestic and exalted, overarching the mythologies of old and looming over today's geo-political reality, Himalaya is, nevertheless, young and fragile. The geologists are only now getting to know its inner workings. Himalaya is still rising (at the rate of 2 cm per year) and the Indian plate is relentlessly pushing against the Tibetan (or Eurasian) plate. Apart from pushing the Himalaya further up, this process frequently gives rise to earthquakes and landslides.[5]

A number of thrusts and faults criss-cross across the Himalaya, the reason behind its restless disposition[6]. Himalaya is steeped in a resentment fuelled by the geo-tectonic activity underneath. The colours of the Himalaya, the whites, greens or blues, hardly reveal the inner narrative. Of late, its green exterior has diminished and the scars from numerous landslides and large-scale erosions are visible on its face. The bursting of the glacial lakes, fast-paced melting of the glaciers, deforestation, forest fires, floods, large-scale erosion, the transport and deposition downstream of thousands of tons of sediment/soil, and the flooding and submerging of large parts of the northern plains: all this has become more or less an annual spectacle. This is partly a natural process; the rest is man-made. By itself, this is an expression of the natural processes at work in the Himalaya; our political and economic setup, which has given rise to the indifferent, unrelenting modern civilisation, has helped accelerate and multiply the contributing factors.

Nonetheless, the natural beauty and splendour of the Himalaya glows unabated, and the aforementioned processes are not unnatural. Himalaya, as nature itself, is well-versed in the art of self healing and regeneration; its flora, the woods, plant cover and undergrowth, try their best to check the erosion and retain its rich soil cover. The geography of the Himalaya rises up from the northern plains – tarai–bhabar–doon–Shiwalik–duar (bhabar of Bhutan), and, progressing tentatively, reaches its lofty pinnacle before descending upon the plateau of Tibet. In the higher reaches, betwixt the peaks lie those ancient passes[7], which have for centuries been the sole passages for transport between India and Tibet, and which have seen in their day not only the songs and caravans of nomadic and trading cultures, or the transhumance of pastoral societies, but also the progress of countless pilgrims as they made their way to Tholing, Tirthapuri, Kailas-Mansarovar, Lhasa and other places in Tibet. The routes connecting India with the main Silk Route also passed through here.

The expanse of the rocky terrain was divided up by the rivers into catchment areas, and waters originating from the two sides of a ridge may meet again faraway downstream in the plains. Complex geography, hostile or favourable conditions, gave rise to lifestyles—expressed in the patterns of food and clothing, song and dance—that were bound by necessity and

feasibility. The way geology influences geography, and geography informs the food habits, songs, dances and dress of its people can be seen and understood in the Himalaya. This geography often helped create and foster the dignity and honour of those who took shelter here or otherwise lived on here.

The lustre of its vegetation is dependent on form and gradient of the terrain, the composition and spread of the soil, rock and snow cover. These, in turn, temper the form and spirit of the lakes and rivers. As the rivers flow out from the glaciers in the Tethys Himalaya, it is difficult to believe that these are innate, self regulating and self-sufficient natural systems. The terrain here does not allow them to become aggressive. This is the Himalayan River in its infancy. It is here where we can hear a river babble and stammer its way through the first tentative sounds.

Through what the geologists have termed the 'central crystalline zone', the rocky and boulder-hewn terrain counterpoints the river, catapulting it into its youth. The river becomes angry and aggressive. This duel between rock and water can be seen throughout the Himalaya. This is the most challenging age for the river. On occasion, mountains hurtling down rocks and boulders obstruct the river's flow, and try to make a lake out of it. But the river invariably refuses to be tamed. Man calls this anger of the river as 'flood', and the mountains' efforts to check its flow as a 'landslide'. Further down, the rivers gradually settle down into a more regulated rhythm, and meet their tributaries at various confluences (sangam). Throughout, they nurture habitable spaces, where humans can settle, till the soil and raise livestock. Human settlements in the Himalaya developed in such places.

In the Plains, we actually see the aged river, tired and enfeebled by the faint memory of her homeland in the mountains. To make it worse, man flushes his industrial and urban wastes into it, and draws out canals from it. Once reverberant and flamboyant in Yamunotri, upon seeing the same river pick its way through the backyard of Taj Mahal, it's impossible to believe that this is the same Kalindi, which spent her childhood amidst glacial snow and hot springs (during the year 2010, Yamuna did prove itself to be a river, not a mere urban drain). When Sutlej, originating from the north western corner of Rakastal (which also receives surplus waters from Manasarovar) in Tibet, is dammed by humans in Himachal-Punjab, it seems as if they want to enslave the rivers as well. Arising from the western wing of Mt. Gurla Mandhata, the river Karnali (which becomes Ghaghra after its confluence with Mahakali/Sharda, and is known as Saryu in Ayodhya), having been witness to the victory and subsequent defeat of the Dogra army chief Joravar Singh in 19th century Taklakot, and to the destruction of monasteries by the Red Army in the 20th century, has also beheld the demolition of a mosque in Ayodhya in more recent times. Whether this river still remembers Lord Ram or his empire is a question yet to be asked by any extreme nationalist.

The river Sindhu (Indus), eponym for India, becomes Mehran in Pakistan, and takes the songs of Tibet, Ladakh

and the Karakorum to the Arabian Sea. Indus isn't merely the chief of the five rivers of Punjab (the others being Sutlej, Ravi, Chenab and Jhelum), it also drains such tributaries as Nubra, Shyok, Kabul, Chitral and Gilgit. These are the rivers by which must have once stood the first few caravans of those migrant humans, who later formed Indian society. Today, all these rivers lie in two or three countries, and finally flow into the Arabian Sea. The havoc and destruction these rivers caused in Ladakh and Pakistan last year, is an indication of their changing temper.

The course of the river Kosi, which flows to India from Tibet–Nepal, has been shifting over the centuries, due to geological and geographical reasons, but equally due to human intervention. It may sound surprising to many that the waters arising from the north eastern and north western glaciers of Chomolangma (Mt Everest), which is situated in Tibet, and where Mallory and Irvine lie buried since their fatal Everest expedition of 1924, finally merge into the Kosi through the Arun and Bhotkosi rivers.

We even have two rivers that are considered masculine and sonly – Brahmaputra (Sangpo of Tibet) and Rangit. The Brahmaputra, which originates from the eastern slopes of Mariam La, very close to Lake Mansarovar and Mt. Kailas, flows through Tibet at altitudes between 11000- 10,000 ft. above sea level, and while it does attain a more disciplined flow in Assam, it has yet to be tamed. It took man thousands of years to bridge the Brahmaputra, but now China and India have already started controversial projects to dam the Brahmaputra or its tributaries. Rangit originates from western Sikkim and disappears into the Teesta, as does Teesta itself into the Brahmaputra.

Of all these Ganga forms the largest river system in the context of India. Even today several Indians would not believe that Shipra, which originates in Kalidas's Ujjain, ultimately reaches Ganga via Yamuna, just as the distant waters from Tibet also meld into Ganga through Karnali and Kosi rivers. Similar relationships exist between Padma or Meghna and Himalaya and Trans-Himalaya. The mythological and epic narratives associated with Ganga exalt her into motherhood. Yet there is a mother in every river. No river can be anything less than a mother and man is adept in exploiting her. In what way have we not already violated Mother Ganga? It's a miracle that it still flows! Our conscience has become so small that we are searching for sacredness in the river from Gomukh to Uttarkashi only.[8]

Flanking these rivers and all their tributaries, stand the towering peaks, majestic and proud, highly individualistic and self-centred, that transform man into poet, painter, philosopher or mystic. They converse with each other or with humans alike. They lie ever closer to the sky than us. If one poet has called this the 'depth of the Himalaya', the other invites us to behold 'as the sky reaches down to kiss its peaks'. This distinguishes the Himalaya from other mountain systems of the world. This imposing succession of peaks includes the Nanga Parvat, K-2, Rakaposhi, Nunkun, Kinnar

Kailas, Swargarohini, Bandarpunch, Kedarnath, Chaukhambha, Bhagirath, Shivling, Nanda Devi, Nanda Kot, Pancha Chuli, Chhota Kailas, Api, Nampa, Saipol, Dhaulagiri, Ganesh Himal, Cho Oyu, Lhotse, Chomolangma (Sagarmatha or Everest), Chomolonjo, Makalu, Kanchen Junga, Chumalhari, Namche Barwa and many more beyond these as well.[9]

Each peak has several facets and the glaciers that lie sprawling across them give rise to several rivers. These rivers tumble down and flow out into the plains, before finally disappearing into the ocean. In the end, these rivers return back to their birthplaces as monsoon, cloud and snow. Since the very beginning, the clouds have resented their stark inability to bring back the soil and silt that was borne by the rivers to the oceans. The 'Mountains of the future' will indeed arise from the 'Oceans of today'. Every mountain is decidedly a painstaking feat, millions of years in the making.

These mountains are surrounded by unending tracts of natural beauty. This is the 'Himalayan wilderness.' It has a spirit and a visage for each season. It converses with the sun in one way and with the moon and stars in another. There still remain pristine pockets of Himalayan wilderness that are untouched and yet unsullied by human action. There are places of pilgrimages and adventure; abodes of the Gods; lands frequented by the fairies; valleys of flowers, forests of the white buransh (rhododendron), bhojpatra and juniper; alpine meadows; homelands of bharal, kastura, monal, snow cock and himchitua (snow leopard); thousands of species of flora and fauna. There are lakes and passes, and trails travelled by our ancestors since millennia There are some seasonal habitats, with their communities, yaks, sheep, horses, mithun, goats, two-humped (or Bactrian) camels and Bhotia dogs. They have their own culture and economy, their own songs and music. And all life is regulated according to the constraints of this environment.

In this way, where a specific kind of geologic–geographic process has given rise to the Himalaya, the Himalaya has further rendered itself into its present form, while at the same time making the rest of the geography all the way to the oceans.

Social- Cultural Diversity

The sacred Himalaya finds permanent residence in the consciousness of various Asian societies and has been vividly described in their myths and literature. Its natural beauty, geographical complexity and a rich mythic tradition have given birth to various pilgrim destinations here.[10] Various societies and cultures have settled here; while some of them have maintained an interactive existence, many have also chosen a more separate, isolated identity. Perhaps, this is the reason why Himalaya is an unparalleled location in terms of its natural and human diversity.

Different stages of social development can be seen here, with tribal,[11] caste and class-based societies standing alongside each other. While animal husbandry is actively practised in the mountains and agriculture in the valleys, the barter system of trade spreads across the

Himalaya. This has led to the creation of a unique social, cultural and economic system, containing elements brought in by different constitutive communities.

Being the melting pot of several human groups, a juncture of different political systems, and the source of the most important rivers of Asia, the continuously increasing geo-political importance of the Himalaya has ensured that we ought to understand it deeply and comprehensively by engaging with its geology, geography, history, anthropology, sociology, ecology, economics, and indigenous knowledge systems. Today it is necessary that the Himalaya should be studied not only for its myths and folklore but its various aspects should become the object of study for scientific and independent research as well.

Since the Himalaya spreads across so many regions and nations, it should be given a research platform in regional and national studies. Simultaneously, its wholeness and trans-national identity should also be kept in mind. Such an approach would allow Conceptualising the Himalaya as the centre and also the periphery. This will be the beginning of an effort to understand this diverse mountain range more deeply.[12]

The next dimension of the history of the Himalaya is about its various human groups and societies, and their inter-relations. The process of migration and habitation of humans in Himalaya is an interesting one. It is yet to be analysed in great detail as to how the Negroid, the Caucasian, the Mongoloid and other ancient communities struggled, compromised and assimilated each other after arriving in the Himalaya.[13] During this process, each community tried to learn from and understand the other. They constructed their preliminary culture, developed economic activities and experimented with indigenous science. Thus, practices such as jhum (shifting farming), animal husbandry, water mills, irrigational systems, mining and metallurgy, transportation and bridge making, vernacular architecture, sculpture and mask-making art and so on, were developed under the special ecological and geopolitical pressures[14] of the place.

Today when we look at the blue-eyed Drokapas of Ladakh; the Shaukas (Bhotiyas), Banrajis, Tharus and Bokshas of Uttarakhand; the Banrajis and Sherpas of Nepal; the Lepchas and Bhotias of Sikkim; the Brokapas of Bhutan, Arunanchal and Tibet, and the many tribes of north-eastern India, their presence speaks of a variety of human contacts and rich social engagement, which became possible in the Himalaya[15]. Here they tried to absorb the different religious traditions and myths they encountered and also gave them a distinct identity in the form of folk traditions.[16]

The Hindu, Bonpa, Buddhist, Jain, Christian, Muslim and Sikh traditions have certainly associated themselves with the Himalaya due to its unique natural attraction. Many old and mutually disparate societies and cultures have existed in the Himalaya. It seems as though this natural persona of Himalaya gave birth to an endless series of Pauranic stories. Such an intense proximity between the historical tradition and that of myths is not visible anywhere else in the world. Each and

every river, peak, pass, lake and cave has a story and most of the time neither logic, nor the prudence works to explain its meaning.

Our Himalaya and Kalidas's Devatatma is in the north while for the nomads of Tibet, most of whom are Buddhists, the Himalaya is in the south. Quite clearly, the Himalaya belongs equally to the people on either side. Such a wholesome understanding of the Himalaya can be found in many stories of various Gods which circulate in its different language cultures. This includes the oral literature of the Himalaya with a thousand faces.

The Shaiva, Shakta and Vaishnava traditions of the Indian sub-continent can be clearly seen in the Himalaya.[17] Lord Shiva is an influential God here and the entire area is under his influence. From Amarnath to the Panch Kedars, and further on to Kailas-Mansarovar and the Kathmandu valley, he finds a place of prominence, and makes appearances in various forms such as head (sir), bunch of hair (jata), arm (bahu), back portion of the body (paacabhaga) and navel (nabhi). There was an effort to relate Vaishnava deities with the Himalaya, but Lord Shiva is the indisputable hero and will remain so. Several efforts have been made to relate the traditions of local deities with Lord Shiva also.

From Kamakhya (Assam) to Punyagiri (Uttarakhand) and to Vaishnav Devi (Jammu and Kashmir) in the southern strip of the Himalaya, there is a strong tradition of Shakti or Mother Goddess, which seems to hark back to the most ancient time. There are also a few Vaishnavite centres like Badrinath and Muktinath. Simultaneously, mountain peaks like Chomolangama and Nanda Devi are still standing in between myths and social reality.[18]

Before being embodied by the peak, Chomolangma's identity is that of a local Mother Goddess. The Nanda Devi of Uttarakhand is a part of this genre of mother goddesses; yet, she is also different in ways. Her identity has grown out of her existence as a mountain on the one hand, a mythic character on another and part of a larger social reality on yet another. Probably she is the only goddess who refuses to be confined to the role of a mother; she is also a daughter, a sister and a daughter-in-law. She is the daughter of the Himalaya and also its mother. She is the Kul Devi (goddess of the clan) of Katyuri kings and also the daughter of Chand and Paramar rulers. Her name is attached to as many mountains as those of Lord Shiva. Not only is she the goddess of faith and joy but also of sadness. In fact, Nanda Devi and Latu are popular even in today's society.[19]

Buddhist monasteries in the inner Himalaya, which spread from Afghanistan and Kashmir to Myanmar, are markers of a rich, living tradition. This Buddhist strip is connected to Tibet in both cultural and geographical ways. It is also present on both sides of the highest summits. Old memorials, dating to more than a thousand years, are also present there. The Bamiyan Buddha of Afghanistan, the remains at Takshshila (Pakistan), various monasteries and forts of Ladakh, the Tabo monastery of Spiti and the Lalung monastery of Kinnaur in Himachal, and other Buddhist monuments are the evidence

of a historical past of more than a thousand years. At the same time, they are also the key to understand the demolished architecture of today's Tholing and Chhaprang along with the rest of western Tibet.[20]

The same could be said about all the shrines and monasteries of Nepal, Sikkim, Bhutan and Arunachal Pradesh (especially Tawang) and their relations with the monasteries in adjoining Tibet. In Uttarakhand, such a presence is visible in architecture and sculpture, but in terms of social organisation, Buddhism is practised only by the Jad community. However, it is also true that the Tibetans, who came with the Dalai Lama and settled in Uttarakhand, have maintained a strong Buddhist presence in the region.

Folk deities, among them some are moving and Mahasu is the most important, have an attractive tradition here, which is independent of pan-Asian gods and goddesses. In fact, this diversity of folk deities is inherently linked to the human and natural diversity of the Himalaya. The places which were constituted as pilgrim centres through practices of culture and belief-systems were and continue to be the most beautiful places in the world even without memorials, temples, monasteries or gurudwaras. This fact also illustrates the aesthetic sense of our ancient ancestors and their belief in the purity of wilderness.[21]

It seems that the human ego has led to the destruction of this serene wilderness. Nevertheless, the Himalaya is still home to many different communities and cultures, some of which strikingly do not believe in any dominant religion of the world. Instead, their belief-systems respect the sun and the moon, the trees and ponds, and nature in general. Such a faith, in fact, seems to be the true and original representative of current religious practices, which are often on the verge of madness. Thus, the nature of beliefs prior to institutionalised religions can still be traced in some of the inhabitants and communities of the Himalaya. Despite the differences in religion and culture, their dependence on each other and the advent of a shared cultural legacy is also an important part of this history.

The limits of religion often divide the society by branding mankind as Hindu, Buddhist, Jain, Parsi, Christian or Muslims. However, it has not been successful in the Himalaya and despite this religio-psychological apparatus, a specific and shared socio-cultural identity has been able to develop here. For instance, the singers of Vaishno Devi and the managers of the Amarnath Yatra are themselves followers of Islam. Simultaneously, it is the Buddhists who make the pilgrimage arrangements for Hindus and others in Tibet. The number of non-Sikh and non-Buddhist pilgrims to the various Sikh pilgrimage sites and Buddhist monasteries in the Himalaya is indeed more than those belonging to the respective religions. Many of the workers and helpers at Hemkunt Sahib and Ritha Sahib were/are non-Sikhs. The doors of Badrinath shrine are opened jointly by the Lambudiri Brahmin of Kerala origin and the tribal head of Mana village. While there is cooperation between Hindus, Buddhists and Muslims in Jammu and Kashmir, in the North-East, it is the Hindus,

Buddhists, Christians and Muslims who live together. It should also be kept in mind that the Chakmas, who have been migrated from Bangladesh, are also Buddhists.

The situation is altogether different and extraordinary in the Mt. Kailas and Lake Mansarovar region of western Tibet. Ancient Bonpas (the followers of Bon religion), Hindus, Buddhists, Jains and also the modern western and Chinese tourists travel together to this mountain and lake and take part in its circumambulation (*parikrama*).[22] This region is indeed a unique multi-cultural destination. In this part of western Tibet of Communist China, neither are we witness to a scene of Ayodhya nor that of Jerusalem. This region cannot be treated as the prerogative of any one community, religion or belief. In fact, it is a unique example of the original unity of humankind.

The Himalaya has a number of tribes and ethnic groups, who have their own autonomous worlds comprising of a little bit of everything. This has kept their diversity, specificity and also their inter-relations intact. The most surprising and important fact is that the primary concern of Gujjars, Sherpas, Banarajis, Brokpas, Drokpas, Lepchas and the many tribes of north-eastern India-Myanmar border, is still with nature and not with any institutionalised religion. Close to the Vaishnavite traditions of Manipur stand the rich tribal traditions of the Nagas, who have maintained their originality despite being attached to Christianity. A little further are the borders of Arunachal, Tibet and Myanmar where Buddhist culture is still alive. In the pilgrimage sites of Uttarakhand, there is a strong presence of visitors from other religions.

The memory of Parashuram spreads from Renuka lake of Himachal and Renuka temples of Uttarakhand to the Arunachal-Myanmar border, where Parashuram Kund is located at the origin of river Lohit. Rishi Vyas is constantly invoked in the valleys of the rivers Kali in Kumaon, Vishnu Ganga in Garhwal and Beas (Kulu) in Himachal. Rishi Kanva finds a presence near Kotdwar and so the story of Shakuntala, Dushyant and Bharat. All the rishis had established themselves in the Himalaya. There are also stories of Gautam Buddha visiting the foothills of Himalaya and Jesus Christ visiting Kashmir. Stories of Saiyads and songs of Sufis are on our lips. The tales of Ramayana are limited in Himalaya but those of Mahabharata are extensive and in multiple forms and they spread from Kashmir to Tripura.

The transformation of Pandavas and Kauravas into folk-gods has been possible in Himalaya only. Their so called journey to heaven was also from here.[23] The Pandavas and Kauravas are still revered in the Tons valley of Uttarakhand. The temples of Karna and Duryodhana are located here and gods travel from one place to another with human beings. People do not leave their gods alone or one can also say that the gods do not want to remain away from their people.

The first Jain Tirthankar Rishabhdev (Adinath) breathed his last at Ashtapaad near the southern slopes of Mt. Kailas, while Adi Shankaracharya extensively toured Uttarakhand and Kashmir. It is also believed that Adi Shankaracharya breathed his last in Kedarnath.

His memorial is constructed there. Before the coming of British rule in Uttarakhand the pilgrims used to commit religious suicide at Brahmjhaap near Kedarnath. Nanak had reached Mansarovar via Kumaon and Ladakh-Bukhara and Gorakhnath is still alive in some parts of Himalaya. Huen-tsang (Xuanzang), Fa Hien (Faxian) and many Buddhist preachers as well as explorers travelled back and forth the Himalaya many times. Mani Padma travelled from Bengal to Tibet.

Kalidas, Shankardev, Gorakhnath, Vivekanand, Rabindranath Tagore, Mahatma Gandhi, Aurobindo Ghosh, Sarala Behn, Uaday Shankar, Nikolai Roerich, Govinda Anagarika Lama and many other personalities have visited the Himalaya and stayed here. Dozens of explorers and mountaineers such as the Jesuit Antonio De Andrade, Hungarian Soma De Korosi, German Jack Mont, British William Moorcroft, Swede Sven Hedin, Verrier Elwin, George Mallory, Young husband, Edmond Hillary, Chris Bonington, Herzog and many others have visited the Himalaya. Pundit Nain Singh, Kishan Singh, Tenzing, Ang Dorji, Latu Dorji, Chandraprabha Aitwal and Bachhendri Pal etc. are the children of Himalaya. The more they visited the Himalaya, the more they must have felt how little they know it. The number of peaks they had set their feet on must have always been less than those unclimbed, challenging ones. One does not know how many more centuries will be needed to complete the exploration of the Himalaya.

Within these myths and realities lie many small societies and cultures, which are correlated despite being unknown to each other. Festivities, fairs, songs, dances, musical instruments, implements and social systems are part of this, as are also swords and arrows – original as well as ornamental. Different forms of traditional knowledge exist here and also those of relationships, manners and traditions. While some communities accept polyandry, some others follow polygamy.[24] Widow remarriage is prevalent in some communities but impossible in others. There are many areas and communities influenced by Buddhist compassion, who hesitate to kill even a bird. Vaishnavite traditions are followed in Manipur and in the nearby Naga areas the practice of 'head hunting' was common a few decades back. There are customs of burial at some places, cremation at others and feeding the corpses to the birds at yet other places.[25] Alongside all this, sounds of revolt have also been emanating from north-eastern and north-western areas. Tribal areas of Pakistan have been in a continuous state of disturbance. The political and social systems of the Indian sub-continent have not been able to earn complete trust of these communities. Our centralised republics have yet not understood their decentralised lifestyles. The colonial government had at least showed its good sense in recognising them as 'non-regulated' areas, but it was a cleverly created safety valve.

These societies and cultures do not exist in order to be administered by one-dimensional central systems. These community-governed decentralised systems have actually not yet been able to make up their minds to fully recognise the centralised democratic governments. The northern areas

of Pakistan, Indian Kashmir, Nepal, Nagaland, Manipur, Assam etc. have continuously remained disturbed areas.

Despite an east-west geographical continuity in the entire Himalaya, north-south social, economic and ecological relations are also prevalent. Relations between the societies of north Indian plains and Tibet evolved centuries ago through the communities of Himalaya and were working up till half a century back in spite of different state systems. After the occupation of Tibet by China, this relationship has disappeared in most areas.

For instance, if we take the example of Uttarakhand, it shares a special relationship with the society and culture of Tibet and the plains of Ganga and Yamuna. It is intense in some places and sparse at others. At the same time, it is also close to the Mahakali region of Nepal and Himachal's Sutluj-Baspa valley. The same argument can be made about Kashmir, Himachal, Nepal, Sikkim, Bhutan and the seven sisters of Northeast. Many layers of humanity can be read and recognised in Himalaya; also, many have been lost and many are still hidden.

The languages and dialects, arts (of cloth, clay, stone, metal, wood, fibre and colour) and other socio-cultural expressions of Himalaya have developed amidst these lifestyles. There are still many uneducated and illiterate societies here, even though circumstances have made them multilingual. Exchange between Indo-European, Burmo-Tibetan, Austric and Dravid language families has been taking place since millennia and can be traced in the Himalayan languages and dialects. The studies undertaken by linguists like George Grierson and D. D. Sharma help us in understanding this cultural diversity, although it must be noted that the nature and degree of development and modernity today are contributing to their disappearance.[26]

In order to understand the Himalayan culture and its relations with the rest of Asia, it is necessary to understand the tradition of pilgrimage. Himalaya is home to Bonpa, Hindu, Buddhist, Jain, Islamic and Sikh pilgrimage sites. The rich tradition of pilgrimage sites and routes includes Amarnath, Charar-e-Sharief, Vaishno Devi, Lamayuru, Manimahesh, Tabo, Yamunotri, Gangotri, Kedarnath and Badrinath (the chaar dhams of Uttarakhand), Ritha Sahib-Nanakmatta-Hemkund Sahib, Kailas-Mansarovar-Tirthapuri-Tholing, Muktinath, Buddhist monasteries on the northern and southern slopes of Everest, pilgrimage centres in and around Kathmandu, Buddhist monasteries of Sikkim-Bhutan and Arunachal (Tawang), Parashuram Kund, Kamakshya Dham (Guwahati) and Lhasa-Samaye-Sigaste-Gyantse.

All over the country, children are named after the above pilgrimage centres and corresponding gods. Most of the pilgrimages of Himalaya are seasonal and take place between the spring and autumn seasons. These travels also connect people from other parts of Asia with Himalaya. A system of chattis (stopovers) existed along these pilgrimage routes, which now in most of the routes is lost due the construction of motor roads. Local societies arrange for the shelter and food of visitors and one can witness innumerable examples

of such mutual dependence and co-operation. Sights of saints travelling alongside family folks were also very common.[27]

Thus, there are many natural areas shared by societies and cultures in Himalaya. These are inexhaustible markers of social and cultural diversity with many layers of hunter-gatherers, artisans, pastoralists, farmers, traders and service holders. The 'Yeti' could be a figment of Himalayan imagination or it could be a bear of the higher Himalaya, but there are still societies here who continue to depend on hunting and collecting. Jhum cultivation is still a way of livelihood. Nomads and pastoralists still exist here as do also people migrating to the plains, just like their own soil and waters.

Many societies are illiterate here and yet multilingual and age old oral traditions have entered the realm of writing in the last two hundred years. Poet Lokratn Gumani (1791-1846) wrote in Hindi, Sanskrit, Kumaoni and Nepali, while Molaram (1743-1833) contributed to Hindi through his paintings, poems and history-writing. Nepali poet Bhanubhakt (1814-1868) was influenced by Ramayana, while Sufi poetry had a wonderful influence on the Kashmiri language through the works extending from those of Nuruddin Wali (1376-1438) to those of Ahmed Zargar (1908-1984).

Yet, traditions of orality have remained dynamic. Jhusia Damai (1910-2005) had kept the mixed tradition of myths and folk-tales alive till recently, in a composite language form of Nepali, Kumaoni and some Bhot-Tibetan, in which prose suddenly transforms into songs and songs into dances. Similarly, Mohan Singh Rithagari (1905-1984) and Gopidas (1902-1975) kept alive Malushahi or Ramol Gatha, while Keshav Anuragi contributed to Dhol Sagar and 'Saiyad Vani'. There could be many folk singers in Himalaya today of whom we are not aware and yet continue to represent its oral traditions.

Many healthy, resourceful and dedicated life times are required for understanding the Himalaya. As Krishnanath has rightly said, 'Himalaya also does not know Himalaya'. Only humans can feel the beauty of the Himalaya. The animals who live here, only know the taste of its plants. The birds that fly across it realise its heights. The fish living in its waters, know the minerals they have to depend upon. But only humans have been bestowed with the power to realise its beauty. Although many a time they do not use their abilities and start trampling their own mountains.

Resources of Many Kinds

But Himalaya is not just about its beauty and its society and culture. Like any mountain range, it is also home to natural resources, which humans have been using since time immemorial. To this is tied the ecological aspect of Himalaya. These resources have been in constant use by societies of hunters, nomads, pastoralists, artisans, agriculturists, traders to the present day non-residents or 'money order' economies, and there is no hope of its stopping in the foreseeable future. The colonial regime had declared these 'life resources' to be 'goods' and the multinational approach of the open

market economy has turned them into 'commodities', with the resources, raw or finished, being silent victims to a relentless, institutionalised plunder. That's why the Himalaya, like other remote regions of the country, has been plagued and tormented by an internal colonialism.

The resources of Himalaya have always been divided into land, forests, water, humans-animals and I would like to add one more - wilderness. Land (soil, minerals, metals and hydrocarbons) is the fundamental or the mother resource. Land bears the pastures, the forests and agricultural fields. The rivers flow on it, and all the glaciers and lakes lie sprawling among its folds. In fact, geology, weather and altitude decide the disposition of the land. Whether it be covered with snow or take the form of a gorge or become an alpine meadow, or else a normal pasture. Humana have brought it to the extent of individual ownership. This is actually agricultural land. Hence they buy and sell it. Today the newly rich and the businessmen have started trading in it.

The Himalaya has been bestowing soil, fertility and water upon northern India by way of its rivers, without being asked to. Man's rashness has hastened the depletion of the soil. This fact can be seen from Dayara region to Moor islands of Bay of Bengal. And it is the soil that saves ourselves from being reduced to soil. In fact, most of the social and ecological movements of the Himalaya are centred round the conservation of soil.[28]

Water manifests itself in all three forms in the Himalaya, solid, liquid and vapour, but the critical mobility is achieved only in the second form, because it knows how to flow. The experts have started calling the Himalaya as the 'water towers of modern civilisation'. This water quenches our thirst. Some of it is used for water mills and irrigation. The energy flowing in it can be captured and commoditised. The consumer's mindset or the capitalist's acumen can merely envision dams like Tehri, or the business of bottled water, packaged in plastic and sold at ₹10 to 15. They will neither dwell on the future of fish nor be concerned about the fate of ordinary humans.

Meanwhile, the construction of a series of dams is underway throughout the Himalaya, needless to say without the 'honest' cost-benefit analysis and proper assessment of the geo-tectonics, catchment areas and the consequences.[29] The small-scale but sustainable and successful efforts of our ancestors, for the conservation and use of water and snow, practised for thousands of years, are invariably rejected as 'traditional knowledge systems', when they are as meaningful and useful today as ever.[30] Some are even considering the 'linking of the rivers', without knowing and respecting the right of the river to flow.

The forests are just as much an integral and distinctive feature of Himalaya as the snow/ice and water. The 'water towers' lie not just in the glaciers; their roots go deep into the forests. Hunting and collecting, livestock and agriculture, crafts and cottage industries, traditional medicines and trade are all supported by the forests. Forests are critical to the formation and retention of soil. Forests fill the lives of people with song, music, journeys and

a range of arts and implements. They are home to animals and birds. They make possible the extent of biological diversity.

The Himalayan biological diversity has many dimensions to it. The rarest of flora and fauna can be found here. If less than five per cent of the total geographical area can support life in Ladakh, more than eighty per cent of all land in Arunachal Pradesh is crammed with forests.[31] If elephants, tigers and rhinos walk in the foot hills, snow leopards, musk deer, pandas, monals and snow cocks are visible in the higher reaches. A variety of species lives in between. Some fly from north of Himalaya to its south annually and known as 'migratory birds'. Some species are already extinct, and many others are threatened or critically endangered and have been duly included in the red data list of IUCN.

There are some remarkable areas with extraordinarily rich biodiversity in Arunachal Pradesh, Bhutan, Sikkim, Nepal and Uttarakhand. To put it simply, Himalaya occupies 0.3 per cent of the planet area, while making up 10 per cent of its biodiversity.[32] This fact has now been recognised by the 'enemies' too. The forests of Himalaya and its vegetation have been a ready source of food and fodder, fuel, timber, roots and herbs, manure, cloth, colours, fibre and so on. Agricultural diversity is closely linked to biodiversity.[33] But humans and their modern apparatus, under tremendous pressure from the international economic establishment, want to 'cut', 'dig', 'collect' and 'kill' as much as possible in the shortest time. They want to earn more and learn nothing. This is a gradual and slow suicide being hatched in the new economy. But for the unsuspecting ordinary folk of the Himalaya, this is nothing short of murder. Climatic and atmospheric changes will no doubt hasten this process.[34]

Humans in the Himalaya are a resource and at same time consumers of all other resources. On the other hand, the wild animals are linked to forests, rangelands and to biodiversity, as the domestic animals are to agriculture, transport and food systems. They can then be termed as 'cash fauna'. If the population of the Himalayan region is estimated at over 50 million, the projection for domestic animals may also go to around 40 million. But the resources of the Himalaya influence the lives of more than 500 million Asians directly or indirectly. For the Himalayan experts, the big task is to make universally available the actual data and statistics on different aspects of Himalaya, so that the widespread guesswork about this large region can come to an end.

There is also a need to understand the Himalayan migrations. For example, how can we approach and understand the concept of 'money order economy' today? While it's meaning has changed for Uttarakhand, to some extent it's still a useful term in understanding the out-migrational economy of Nepal. How to understand the forced migrations of Tibetans and Pundits from their respective lands? How to analyse the migration of labourers from Bihar, Jharkhand and eastern UP to remotest and difficult Himalaya?

The most special, 'niche', resource of the Himalaya is its 'wilderness', its natural beauty and tranquillity. This beauty isn't just the peaks, glaciers, confluences, springs, lakes, valleys of flowers, green and blue forests and perennial rivers considered by themselves, but a combined and juxtaposed whole, much greater than the sum of its parts. At times rain would embellish the scene, at other times snow, fog or hailstorms would add to the beauty. The moon and the sun adorn the wilderness in their own way. Many a times, the stars would descend upon its lakes, and often the rising or setting sun or moon would set its beauty ablaze. How the clouds alight on the meadows to graze, or how the moon with swift manoeuvre becomes the sovereign of the sky, as soon as the sun goes down, all these are such sights to behold that they can only be experienced. The spectacle of the falling snow is also like a silent, meditative dance of an animated grandeur.

In this vast panorama, the flight of a bird, the sighting of a *Monal* (the Himalayan pheasant) or a musk deer, timid tone of a *Kakar* (barking deer) or growl of a *Guldar* (leopard), the slithering of a reptile or a fish leaping out from a lake, break the monotony of Himalaya's imperial splendour, spontaneously inventing sublime flourishes. Amidst all this, communities or their dwellings and architecture, or their songs and caravans, or the smoke rising from their houses in the settlements, all add a very unusual human beauty to the canvas. This endless palette endows their vision with art and poetry, fills in the blank spaces of the modern mind and deconstructs monoculture.

This immeasurable beauty cannot be manufactured by nation-states or multinational companies. This wilderness is the perpetual possession of the Himalaya. Pilgrimage and tourism are very dependent on these assets. A major part of these assets is associated with aesthetics, and visual intensity and 'cutting' or 'digging' is not involved. This 'wilderness' can be the basis for the dust and smoke-free industry of the twenty first century i.e. the people's tourism. And there is tremendous pressure on this resource today.

Between Silence and War

In these beautiful and certainly difficult areas of the earth, the Himalaya shows signs of prosperity and also of poverty. The present scenario of the Himalaya, therefore, makes one upset and this sadness is not only felt by more than 50 million Himalayan people but it is also part of a larger national and regional sadness. It has become so pronounced because the flowing rivers speak of it, the mountains insist on it and the forests and minerals, which no longer belong to the people of the region, echo with it. The natural environment, which is the primary context for the dances and songs of the people, are being consistently destroyed. Unsound developmental processes are being forcefully thrust upon the region. Nevertheless, the people have not yet surrendered.

Even amidst this sadness, they are fighting for their forests, soil, minerals, folk culture, and in a way, for their very identity. They have been gauging the conspiracies of supporters of big dams and corporate and captive

tourism, the contractors of mines and road construction and their destructive methodology of work, and the looters of raisin, timber and herbs. This realisation is not limited to some pockets only.

Many active sections of the society are of the opinion that Himalaya cannot be sustained and saved separately. Its environment is linked to its economy and this ultimately brings in the question of political will in a national and international context. The societies of Himalaya have been protecting themselves for centuries, but self-defence has become acutely difficult today.

The Himalayan societies have historically engaged in warfare in order to establish and protect themselves from each other and also from competitive feudal powers. There could be some difference in the degree of endurance that different societies possess, but the human quality to protest exists amongst all. Its form is contingent upon the particular spatio-temporal context in which it takes root, and it thereby spreads socially, sometimes gaining a generous quality and at other times an aggressive one. The stability achieved after the struggles with medieval feudal powers was disturbed with the arrival of Europeans, who heralded an empire of exploitation and slavery. However, this was followed by retribution and resistance.

There was an overall decline of feudal powers in the Himalaya by the last decades of the eighteenth century, with the exception of three, which evolved and become even bigger for some time. These were the Dogra, Gorkha and Ahom empires, which the colonial rulers could not fully destroy. By the nineteenth century, Company rule had gradually entered in some parts of the Himalaya. In response, individual and collective resistance from the communities of Himalaya also started to get stronger. Most of the social movements in Himalaya were led by peasants and tribes. The form and significance of resistance in the Himalaya can be gauged by studying the revolts of Jayantiya, Kuki and Manipur, the Phulagarhi movement of Assam, the anti-begar (forced labour) and forest movements of Uttarakhand, Dhandhak and Prajamandal movements of Tehri State, Prajamandal movement of Himachal States, Chanaini movement of Jammu and National Conference movement of Kashmir.

Struggles against the feudal and colonial rule have been carried out in all parts of the Himalaya. The movement of Nepali Congress can also to be placed in this context. This era witnessed the emergence of many leaders and revolutionary heroes. Tikendrajit and Hijam Iravot of Manipur; Shivcharan Rai of Meghalaya; Naga Rani Gaidinlue; Vishweshwar Prasad Koirala of Nepal; Govind Ballabh Pant, P.C. Joshi, Chandra Singh Garhwali, Sridev Suman and Nagendra Saklani of Uttarakhand; Veer Ratna Singh, Fakir Chand Bhapa, Yashpal, Satyadev Bushhari and Yashwant Singh Parmar of Himachal and Sheikh Abdullah of Kashmir are the names of some of them. The soldiers who refused to fire upon unarmed Pathans in Peshawar and those who enrolled themselves in the Azad Hind Fauz (INA) and the RIN mutineers are also part of this list of fighters.[35]

This tradition did not stop even after 1947. Mass movements continue even today. The resistance in both parts of Kashmir and in north-eastern India has repeatedly turned violent. Movements in Uttarakhand also did not stop after independence[36] and it was only mass movements which finally brought democracy to Nepal. Movements are going on in Tibet and Bhutan as well. In such an atmosphere, sometimes there is a lull and sometimes the situation turns explosive. Nevertheless, it must be hoped that new movements lead to a deepening of democratic foundations. Bhutan has entered into the era of constitutional monarchy. The very idea of GNH (Gross National Happiness) has emerged from this small Himalayan country. Presently Himachal and Sikkim are such states where processes of development are being slowly and peacefully implemented, though these states are also experiencing ecological movements.

It must be remembered that if we thrust externally derived solutions on to the issues of Himalaya, it will only lead to more instability and unrest. In fact, such an understanding is the need of the hour. If the Himalaya and its resources are used only for commercial exploitation, then neither the Himalaya nor the north Indian plain will remain safe. There is no dearth of people, from India and elsewhere, who, on the one hand, willingly declare that the Himalaya is the highest symbol of human civilisation and on the other, do not hesitate at all in destroying its natural wealth and cultural prosperity. In fact, it is these people who are running the system. This is the real scenario which has placed the Himalaya in a dangerous situation and it is a matter of concern for all of us.

What we need at the moment is a steady middle path with long-term goals for the overall betterment of our larger society and fulfillment of our needs, and not hasty frenzies of development which only benefit a few. Globalisation, privatisation of commons and climatic change are bound to have a direct impact on the Himalaya. However, we are also certain that despite these processes, it will maintain its presence amidst us and will continue to support our existence in various ways. After all, who are we to save the Himalaya? In fact, it is because of the realisation that our own safety is linked to the existence of the Himalaya, and the natural environment in general, that we are talking about its protection. Truth is that Himalaya is being attacked from all sides and its resources are being looted at such a speed that they cannot be simultaneously regenerated and restored. This is our modern civilisation and somewhere we are shirking from facing it. However, we must realise that we have only one Himalaya and we do not want to lose it.

The Himalaya can be likened to the father who is unable to scold his spoilt children and to the mother who is unable to doubt them. In order to save the Himalaya, we must be ready to lose some things which might have a veneer of glitter albeit of a temporary nature.

One should hope that the children of the Himalaya and the rest of humankind will realise this in time! Alongside, it should also be remembered that this understanding is neither available in the international market, nor can

it be developed by the World Bank or any multinational company. This realisation and awareness already exists in the societies and communities of the Himalaya and we can learn and imbibe it only from there. Hopefully, we and our policy makers will awaken to this fact well in time.

END NOTES

1. Caterpillar fungus (Cordyceps sinensis) is also known as *Keeda Jadi*. Finds a number of uses in traditional medicine of China, Tibet, Nepal and India.
2. The poet stayed at various places in the Himalaya. This includes Shillong, Darjeeling, Ramgarh, Almora and Shimla amongst others. However, at none of these places has a memorial been built. In Ramgarh (Nainital) and Almora even an introductory board has not been installed. In Shimla, his stay is indicated by a board in front of a house near IIAS. The Institute can certainly make the presence of this house more meaningful. Gurudev wrote his novel *Yogayog* and the poems *Susamay* and *Devdaru* during his third visit to Shillong in May-June 1927, while staying at the Siddhali House. While this place could have been protected and used properly, it was demolished in July 2010. Similarly, the house in Pandua village of Jagatsinghpur district, Orissa, where Gurudev wrote the dance-drama *Chitrangada*, is in ruins. On the occasion of his 150th birth anniversary, we have before us the opportunity to preserve the heritage associated with him. Let us not miss the possibility that this occasion holds forth.
3. Many experts opine that the Hindu Kush and Karakoram are also part of Himalaya, and according to some it lies between the rivers Indus and Brahmaputra or between the Mts. Nanga Parvat and Namche Barwa. Then its length is considered as varying between 2,070-3,000 km., breadth between 250-400 km, with an overall area of 600,000 sq. km., and population of 5 crores (see : Burrard, S.G., Hayden H.H., Heron, A.M., 1934 (1970), *A Sketch of Geology and Geography of the Himalaya Mountains and Tibet*, New Delhi; Wadia, D.N., 1953, *Geology of India*, London; Heim, Arnold and Gansser, August, 1939, *Central Himalaya : Geological Observations of the Swiss Expedition* 1936, Zurich; Gansser, A, 1964, *Geology of the Himalaya*, New York; Zurick, David and Pacheco, Julsun, 2006, *Illustrated Atlas of the Himalaya*, Kentucky).
4. For this see another lecture: Pathak, Shekhar, 2003, *Mata Himalaya Pita Himalaya*, Bahuvachan 11, Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Delhi / Vardha.
5. The highest 14 mountains of the world are located in the Himalaya and also the deep gorges of Kali Gandaki, Satluj or Brahmaputra rivers (Zurick, David and Pacheco, Julsun, 2006, *Illustrated Atlas of the Himalaya*, Kentucky : 3-4).
6. Khatri, K.N. 1987. *Great Earthquakes, Seismicity Gaps and Potential for Earthquake Disaster along the Himalaya plate Boundary*, Tectophysics 138; Bhatt, Chandi Prasad, 1997 (1992), *The Future of the Large Projects in the Himalaya*, Pahar, Nainital; Valdiya, K.S., 1993, *High Dams in the Himalaya*, Pahar, Nainital; Gaur, V.K. (Ed.), 1993, *Earthquake Hazard and Large Dams in the Himalaya*, Delhi.
7. Pamir, Karakoram, Khardung La, Jauji La, Baralacha, Kunjum La, Sipki La, Mana Pass, Niti Pass, Kingri Bigri La, Untadhura, Lipu Lekh, Tinker La, Nathu La, Jalap La, Dongkya La, Letavasa Pass, Tunga La etc. are situated between the two valleys of the

Himalaya or between the Himalaya and Tibet. Older trade and pilgrim routes passed through these. Most of the passes are situated on lower ridges of mountains (5,000 to 6,500 m) or along the rivers.

8. Among these rivers, Sindhu, Ganga and Brahmaputra make up 4.28, 25 and 33.71 per cent respectively by volume of India's river water, and drain 9.8, 26 and 7.8 per cent respectively of India's total area. In this way, their combined basin is 43.8 per cent of India's total surface area, and supply 63 per cent of India's fresh water.
9. The heights of various peaks is as follows – Rakaposhi (7,788m), Nanga Parbat (8125m), K-2 (8,811m), Gasherbrum (8,068m), Nunkun (7135m), Kinner Kailash (6500m), Swargarohini (6,252m), Bandarpunch (6,102/6,316m), Kedarnath (6,940/6,830m), Chaukhamba (7,138m), Bhagirathi (6,856m), Shivling (6,543m), Nanda devi (7,817m), Nanda Kot (6,881m), Panchachuli (6,904m), Rajrambha (6,537m), Aapi (7,132m), Manaslu (8,163m), Sheeshapangma (8,013m), Dhaulagiri (8,167m), Annapurna (8,091m), Cho Oyu (8,201m), Lhotse (8,516m), Chomolangama or Sagarmatha or Everest (8,850m), Makalu (8,481m), Kanchenjunga (8,585m), Kunla Kangri (7,600m), Namche Barwa (7,800m).
10. See Bernbaum, Edwin, 1990, 1992. *Sacred Mountains of the World*, San Francisco, 2-23, 206-248.
11. Kalash, Balti, Bakarwal, Janskari, Gaddi, Gujjar, Jaunsari, Shauka, Tharu, Boksa, Banraji, Bhotiya, Byansi, Magar, Gurang, Tamang, Nevar, Sherpa, Rai, Limbu, Lepcha, Drokpa, Monpa, Abor, Mismi, Apatani, Naga, Mizo, Khasi and Jayantiya are the well known among them but there are also other tribes and communities.
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Effect of modular teaching method on democratic values of Grade VIII students

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Abstract

This study reports the effect of modular teaching method as compared to traditional teaching methods on democratic values of grade VIII students. Adopting the quasi-experimental, non-equivalent control group design, the experiment was conducted on two intact grade VIII classes in an elementary school of Mirzapur, UP. The modules prepared by researcher served as the content for the experimental group. The results revealed that the democratic values post test scores of the treatment group had higher estimated marginal means than the control group. Levene's test showed that the homogeneity of variance between the two groups was met for democratic values post-test scores. The univariate effect for democratic values post test scores was significant. The conclusion was that the modular teaching method was more effective for developing democratic values as compared to traditional teaching method.

1. Introduction and Review of Literature

Success of democracy of any country depends upon qualities of its citizens that's why country inculcates good qualities in its citizens through education. As a part of social studies, civic education is aimed to develop ideal citizens. The main aim of civic education is to develop democratic values in citizens and also develop understanding of its rights and duties so that they can perform as a sensitive and responsible citizen.

A value is principle, standard or quality considered worthwhile or desirable in an individual. Most of our actions and behaviour are based on values, i.e., on what is perceived as evil, good or neutral. These values are often

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held as ideals rather than implemented as realities. The National Policy on Education 1986 stated, "India's political and social life is passing through a phase which poses the danger of erosion to long accepted values. The goal of secularism, socialism, democracy and professional ethics are coming under increasing strain". Dubey (1991) in his study 'A critical study of the concept of value education in India at school level since 1947 to 1986' concluded that values like national integration, brotherhood, secularism and punctuality have been highlighted. Songs and legends, which highlight socially accepted values, are missing from the curriculum. Value crisis is due to lack of ideal leadership and neglect of affective domain in education. In a developing country like India multiple pressures and fast changes in family patterns and standards of living have become stumbling-blocks in the potential of home imparting education on democratic values. It is, thus, the responsibility of the educational system to concentrate its attention on adequate education of students, especially adolescent boys and girls, for democratic values. In the era of transition, the prevailing democratic values should be induced through different strategies so that democracy may survive well (Gardia, 2007).

Values could be promoted through direct or indirect methods. In the direct methods we may use related materials in the classroom and other activities like prayers, songs, stories (fables, fairy tales, folk tales etc.) *slokas*, parables, and proverb and so on. Under the direct approach, two techniques have been suggested. The first is the one based on, reasoning (inducto-deductive). The second is that of 'discovery'. In Inducto-deductive approach of moral approach opportunities are created to help children acquire moral development through inductive reasoning. In discovery approach the child is expected to discover for himself the virtue/moral principle/law contained in the subject matter or other. Learning experience offered to him. Situations in daily life, poems, prose pieces, *slokas*, proverbs and parables are some material to which this technique can be employed. In activity approach to moral education children are engaged in activities which promote the application of the moral principles and the demonstration of the virtues in daily life. School and its surrounding can provide many such opportunities for moral practice. The most important instructional approach-'demonstration approach' is based on examples and not on mere precept. It is the teacher's own behaviour. This is the anvil on which other instructional strategies meet with success or defeat. He has to show his moral calibre in whatever he thinks feels or does. The Integrated approach to moral education consists in imparting moral education not as separate subject but through the existing subjects and activities, without incurring any extra cost, with no separate curriculum or time table or an extra period. Broadly speaking there are three different ways of implementing these: (1) through maintaining an appropriate environment in the school (2) correlating moral education through other teaching subjects (3) through organisation of co-curricular activities and work experience so as to cover all

the students. In incidental approach to moral education teacher noticed an incident which can be labelled as morally right or wrong do ordinarily occur in every school and he has an opportunity to use it for giving the right moral precept. The values could be promoted by integrating school programmes with co-curricular and other such activities of school like-morning assembly, prayers, cultural activities (group songs, folk dance, shadow play, one act play, fancy dress etc.), games and sports. Some studies related to development of values and teaching technique/method of values were conducted in India. Diwakar (1995) revealed that the intervening strategies can promote the value of democracy and are useful in developing the value of national integration. It was also found that the value of democracy and national integration developed during experiment is retained over a longer period. Joshi (1998) in his study found that the value analysis technique was effective in terms of developing democratic values among students, through teaching of civics. Kapoor's (1995) study indicated that the modified Rokeach's value change instrument used in the experimental intervention programme was effective in bringing about desired value change among the students. Sharma (1994) conducted the study to see and compare the effectiveness of value analysis model in developing value-analysis competencies among B.Ed. trainees and school students. The finding of study indicated the effectiveness of Value analysis model over conventional method of teaching. The major values taken up are cooperation, dedication to teaching profession, nationalism, perseverance, and scientific temper. Singh (1993) studied development of moral judgement among adolescents and was found school stage is very delicate, maximum attention needs to be given it, and the family must provide a democratic and open environment. Singh (1992) studied the effect of Jurisprudential inquiry model of teaching on value preference and social behaviour of school students and found that Jurisprudential inquiry model was effective for teaching. Ram (1991) studied the development of constitutional values among higher secondary students and found main factors affecting development of values that are curriculum, age, grade, scientific temperament. Dixit (1983) conducted a socio-psychological study on the role of education in political socialisation and found that on political attitude the effect of educational level and stream of education was significant. It means education plays significant role in developing political attitude. Dixit (1983) conducted a socio-psychological study on the role of education in political socialisation and found that on political attitude the effect of educational level and stream of education was significant. It means education plays a significant role in developing political attitude. Varshney (1984) assessed the civics curriculum from the point of view of citizenship education and concluded there is no impact of the civics course. She suggested that before any other changes is contemplated the civics curriculum of U.P. board needs to be supplemented by prescribing some activity programme which should be

laid down with a view to providing opportunities to students for the exercise of civic sense in theory and practice. Gardia (2007) concluded in his study that higher secondary students are good in the value of 'Cooperation' whereas they, are poor in the value of 'Liberty'. They are in moderate status with respect to the value of 'Equality' 'Dignity of individual' 'Justice' and 'Tolerance'. Providing creative stimulation in school environment is ideal for the development of Democratic values. Hence, it is quite evident through the above mentioned analysis on education and democracy that education helps in developing democratic values for strengthening and nurturing democracy.

The humanities, natural sciences and social sciences abound in opportunities for moral inquiry (Mitias, 1992); Lickona (1991) believes "the academic curriculum has been a sleeping giant in values education". Empirical research on the effectiveness of ethics training integrated into standard academic classes, however, reports mixed outcomes: some researchers have found the approach unsuccessful (e.g. Ladenburg, 1977); others reports observable, but statistically non-significant, growth in moral maturity (e.g. Garrod, 1989); and still others have documented statistically significant positive outcomes (e.g. Sullivan, 1975). Overall, Rest and Thoma's (1986) meta-analysis of intervention studies found academic courses to be relatively ineffective compared to dilemma discussion groups and personality development programmes. An apparently common and key ingredient of the successful academic courses, however, is that they incorporated small group's discussions of ethical dilemmas into the curriculum (Hayes, 1991; Kuhmerker, 1991). Higgins review (1980), for instance, concluded that the "most powerful interventions for stimulating moral stage change are those that involve discussion of real problems and situations occurring in natural groups, whether the family or classroom, in which all participants are empowered to have a say in the discussion".

The popular notion now is that values are better caught than taught, the truth is they are both caught and taught. This time however, the learning does not solely come from educator/teacher. The role is shared with other learners. In this light the educator/teacher is more of a guide and a facilitator. Values cannot be forced even if conveyed with good intentions. No real integration or internalisation of a value can be achieved unless the learner desires or agrees with said value. Values may be shared and argued but not imposed. The individual holds the right to his or her own choices in life. The valuing process necessitates experimental learning. The educator simply provides the learning opportunity and atmosphere from which genuine exploration, expression and discovery may freely occur. In the end, learners act on the values that they consciously choose own.

Values can be taught through modular approach. Modular approach in teaching is a recent development and is a modification of an improvement upon the famous concept of programmed instruction. " A module is a set of learning opportunities organised around a well-defined topic which

contains the elements of instruction, specific objectives, teaching learning activities and evaluation using criterion referenced measures"(UNESCO,1988). Modular teaching is one of the most widespread and recognised teaching learning techniques in United States of America, Australia and many other western countries including Asian region. Modular teaching is used almost in all subjects like, natural sciences as well as in computer science (Farooq, 1997). Modular teaching is concerned for each pupil as an individual with his own special aptitude and interest, goal of helping each student to think for himself and allowing the individuality to each learner. The emphasis must be on individual student with unique abilities, aspiration and influencing experiences and, again to provide quality education, the teacher must personalise and individualise the instructional programme (Manlove and David, 1985). The use of modular teaching method has been widely investigated in the field of sciences. Ali (2005) conducted a study on development and effectiveness in modular teaching in biology at secondary level and found that modular approach is more effective than traditional teaching method. Singh (2008) developed a module on fundamental science concepts for primary school children and study its effectiveness. She found that modular teaching is more effective than traditional teaching method attaining science concept. Ragasa (2008) found in their experimental study that Computer Assisted Instruction enhances learning more than traditional teaching method. Adibniya (2012) conducted an empirical study to compare the effect of the modular teaching method and problem-solving method on academic achievement of the students in natural sciences and concluded that the students being exposed to modular teaching method had higher academic achievement in comparison with the students being taught by problem solving method. Pandya (1974) studied the effectiveness of programmed learning strategy in learning of physics in secondary schools. He found that the gain of the students of experimental group at the post-test score was significantly greater than pre-test scores. Sahazahan (1980) experimented teaching science in Grades VI and VIII through module. He found that the modular way of learning was more effective than the conventional method. Hopper (1982) took up the experimental study in the use of modular approach for teaching biology in Class XI students. He found that modular approach for teaching biology was very effective and modular teaching led to a significant increase in the academic motivation of student.

2 Objective of the Study

This paper aims to find out if teaching democratic values with the use of modular teaching method helps students achieve better in understanding. This has been attempted by looking whether or not there is a significant difference in the effects of the treatment and control group on understanding of democratic values as measured by the post-test.

Hypothesis

Following hypothesis was framed to study the effect of modular teaching

method on democratic values of grade VIII students.

There is no significant difference in understanding of democratic values between control and treatment group.

Pre-test	*Independent variable*	*Post-test*
O1	X1	O2
O1	X2	O2

3.0 Research methodology

3.1 Research Design

Research design of this research was of quasi-experimental design with non equivalent pre test-post test that is performed by two-group method. Its model is as the following.

3.2 Sample

The samples for this study were the 69 students of the B.L.J Intermediate School, Mirzapur, U.P. (India) who were enrolled in Class VIII in 2011-12 session. Random assignment of students in groups was not possible. There were two section of Class VIII, A and B. It was decided that VIII A will be control group and VIII B will be experimental group. The 29 students were in the experimental group and 40 in the control group. There were actually 58 students in control group but only 40 participated in the pre-test and the post-test. 34 students in experimental group but only 29 participated in the pre and post-tests.

3.3 Research Instruments

Modules: Modules prepared by researcher for teaching the experimental group. It is a self paced and individual learning material.

- The 1st module was based on respecting women.
- The 2nd module on understanding of equality.
- The 3rd on identifying and developing cooperative behaviour.
- The 4th module was based on understanding of tolerance.
- The 5th module was based on understanding of liberty.
- The 6th module was based on understanding of justice.

The traditional method consisted of lectures given by researcher, recitation and class activities involving the topics discussed during the class. The topics were the same as those given to the experimental group. Text written by researcher was used by the students. Each one had a copy of this text/ material.

Democratic Value Scale

After consulting Preamble of Indian Constitution, theory of democracy, and empirical evidences in different studies about Democratic values researcher conceptualised democratic values as a set of six values – (1) Dignity of individual (2) Liberty (3) Equality (4) Justice (5) Cooperation and (6) Tolerance. Democratic values have been operationalised in this study as per Kluckhohn (1951) "Students conceptions, implicit or explicit, expressed as their notions" pertaining to the above mentioned a set of six values. Democratic values Scale was developed by researcher. It is a five point rating scale (Strongly Disagree, Disagree, Undecided, Agree, Strongly agree) composed of 50 items based on six dimensions. The scale includes

statements from the all selected dimensions of democratic values namely-Dignity of individual, Liberty, Equality, Justice, Cooperation and Tolerance. Due weightage was given to all the dimensions while selecting items. The scale contains 50 statements which represents all dimensions of democratic values. Hence it has content validity. It has also construct validity as items were selected having t values equal to or more than 1.75 (Edwards, 1975). The scale was given to experts in the fields of education and they agreed that the items in the scale were relevant to the objectives of the study. Hence it has face validity. The present study employed split half method to determine the coefficient of internal consistency. The reliability of split half test is found to be 0.76 by the use of Spearman Brown prophecy formula. The reliability of the whole test was found to be 0.82.

3.4 Data Collection

The democratic values pre-test was administered to students of both groups. Then treatment group given i.e. experimental group was taught by modular teaching method and control group was taught by traditional method. Current research was done during 33 working sessions taking 40 minutes in both classes. Experimental group first was being taught by modular teaching method during 33 sessions (7 weeks) and control group was being taught by traditional method during 33 sessions. After finishing the mentioned teaching period, democratic values of both groups was evaluated by post test. Pre test and post test was one and the same test for democratic values.

3.5 Analysis of Data

This study used SPSS 16 (Statistical Package for Social Sciences version 16) to compute for the Analysis of Covariance (ANCOVA). Specifically the one way ANCOVA was used because it involves one continuous dependent variable (DV Post- democratic values post-test scores) and one categorical independent variable with two levels i.e. Group=1 (Experimental group), Group=2 (Control group) and one continuous covariates DV Pre (democratic values pre test scores). The covariates were gathered to allow adjustment for prior differences among groups because random assignment was not possible. Means were adjusted for the influence of the covariate.

Table1

Between- subject's factors

		N
Groups	1	29
	2	40

Table.1 shows that there were 29 students in the experimental group (labelled group 1) who were taught democratic values using modular teaching method and 40 students in the control group (labelled group 2) who were taught democratic values using the traditional method of teaching.

Table 2

Descriptive Statistics

	Group	*Mean*	*S.D.*	*N*
DV Post	1	180.69	32.88	29
	2	146.48	34.45	40

Table 2 shows that the mean score of the post test of the democratic values

for the group taught using modular teaching method was 180.69 with standard deviation 32.88 while the group taught traditional method has a mean of 146.48 with standard deviation 34.45.

Before the Analysis of Covariance was conducted, a test between subject effects, or homogeneity of slopes was run. The result of the homogeneity of slopes tests were not significant (p=0.728). This ensured there was no significant interaction between the treatment and the covariate (pre-test scores). The results for the homogeneity of slopes were satisfied.

Since the homogeneity of slopes was found not to be significant, the next step was to proceed with the one way Analysis of Covariance (ANCOVA). The purpose of the test was to determine if the treatment group (Modular teaching method) achieved greater gains on the post-test than the control group (Traditional teaching method). The ANCOVA test accounted for the differences in pre-test scores that existed between the two groups. ANCOVA has capability of adjusting for the unequal pre-test scores and offers a fair analysis. Analysis of Covariance (ANCOVA) was performed to determine if there are significant differences between the treatment and control groups, after adjusting for covariate with a respect to their effect on democratic values post-test scores (DV Post). If there is a significant difference, this means that there exists some linear combination of DV Post test for which the groups differ, after adjusting for covariate. Given that there is a significant difference, ANCOVA was run to determine, the dependent variable differs across the groups. The result shows that the groups differ with respect to DV Post test scores. ANCOVA assumes that the distribution of errors is bivariate normal with the mean 0 and the same covariance matrix for both the treatment and the control groups. Levene's test is used to verify this assumption (Table-3).

The Levene's Test tests the assumption that dependent variable has similar variance for the two groups. It is generally considered that if the Levene statistic is significant at the 0.05 level or better than the null hypothesis that the groups have equal variance is rejected. In practice, people often consider P-values below 0.01 as evidence of a serious assumption with the equal variance assumption. For this data the homogeneity of variance assumption between the two groups is met for DV Post, p (.056)>.05. Hence the homogeneity of variance assumption is considered met.

Table 3
Levene's Test of Equality of error variance

	F	*Df1*	*Df2*	*Sig.*
DV Post test	12.913	1	67	.056

The F-test appears in the separate ANCOVA computed on the dependent variable (DV Post test) of Table.4. The F examine tests the null hypothesis that there is no significant difference in the means of dependent variable for the different groups formed by the categories of independent variables. The univariate effects that are significant for DV Post test are DV Pre (p=.000) <0.05, groups (p=0.000) <0.05.

Table 4
Tests of Between-subjects Effects

Dependent Variable: DV Post

Source	*Type III Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Corrected Model	94138.537[a]	2	47069.269	1.453E3	.000
Intercept	405.161	1	405.161	12.507	.001
DV Pre	74458.168	1	74458.168	2.299E3	.000
group	27581.186	1	27581.186	851.425	.000
Error	2138.014	66	32.394		
Total	1881607.000	69			
Corrected Total	96276.551	68			

Results and Discussion

One way Analysis of Covariance (ANCOVA) was conducted for this study. The independent variable was type of teaching method included two levels; modular teaching method, traditional teaching method. The dependent variable was student's democratic values score and covariate was the students score on democratic values pre-test. Levene's tests shows that the homogeneity of variances assumption between the groups is met for democratic values post test as evidenced by F (1,67)=12.913, p=0.056. That is p (0.056)> (0.01) (see table-3)

The Analysis of Covariance was significant, F (1, 66) =851.425, p<0.001 (see table-4).However, only 28.60% (ω**2 =0.2860) of the total variance in democratic values post-test scores was accounted for by the two levels of group (i.e. modular teaching method and traditional teaching method) for the effect of the students democratic values post-test scores. The results showed that students who were taught by modular teaching method (M=180.69) had significantly higher understanding of democratic values, controlling for the effect of their democratic values pre-test scores (covariate), than those students who were taught by traditional method. (M=146.48)

In this study the mean score of the post-test scores of democratic values of the treatment group is significantly higher than that of control group. These results are in line with the views of, Hooper (1982), Woods (1986), Ali, R. (2005), Singh (2008) and Adibniya (2012).

Barnes et.al (2000) investigated that operationalisation of modular approach helped in motivating the students and they benefited more from this approach.

Conclusion and Recommendations

On the whole, modular teaching is more effective as teaching-learning process for teaching democratic values as compared to traditional teaching method. Because in modular teaching the students are provided the opportunities of learning at their own pace, according to their ability level and needs.

In the light of findings and conclusions of the study, following recommendations were made.

1. This study proved that modular teaching is more effective mode of instruction for democratic values as compared to traditional method of teaching. This method should be applied to other subjects as well as other level of education. Therefore the teachers of social science should use modular teaching to develop the topics related to democratic values of the students.
2. Modular teaching is a new technique in classroom setting, social science teachers should be provided training in module writing and teaching.
3. The results of single study are insufficient to decide about the maximum use of modular approach in our classroom setting. Thus a series of studies on modular approach in different situations and mixed gender at different levels should be carried out.
4. The study was conducted on only male students, but there is a need to conduct same study on female students also to check the effects of modular teaching.
5. This study examined only the topics related to democratic values, further studies be conducted to investigate the effectiveness of modular teaching for other dependent variables such as attitude towards subject, self-concept, social skills, learning style, and achievement-motivation.

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A Comparative Study of I.C.S.E., C.B.S.E. and U.P. Board Students regarding Comprehension of Environmental Issues

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Abstract

In the present education system aspects of environmental concerns are introduced in the curriculum in various ways. Children in the school are gaining knowledge and understanding of environmental issues through textbooks, projects and various activities. We need to find out that to what extent the basic knowledge and understanding of various issues of environmental concerns have been imbibed by school children. A comparative analysis of the comprehension regarding different aspects of environmental concerns in students studying in schools affiliated to different Boards of education highlights the positive aspects and the weakness in the environmental education curriculum being followed by these schools. It will help in identifying major areas which need to be worked on for the better understanding of environmental concerns among students. Since environmental concern is a very broad area and various aspects are interlinked with each other, hence students' understanding could only be developed if they are able to establish if-then and cause-effect relationship between various aspects of environmental concerns.

In order to meet the challenges and crisis of the present century, environmental education has been made an integral component of our school curriculum. Each and every school is imparting knowledge about various environmental issues through books, lectures, workshops and eco-club activities, projects etc. Issues of environmental concerns are very comprehensive and interlinked with each other, affecting our life directly or indirectly. It requires

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a basic understanding among the students regarding the interdependence of various environmental aspects.

An understanding of environmental concerns is not merely a generalisation based on certain facts or data, but it is an insight into how it may be applied to other situations in practical life. It is simply, that how easily a student can establish 'if-then' relationship between various environmental issues. In the present context of environmental concerns isolated and meaningless knowledge have no value; it is only when they are given meaning at the level of concepts or understandings that their uses become clear to learner. In the environmental context understanding of cause and effect relationship is important.

A comparative analysis of the basic understanding of environmental issues of students studying in different board of education can highlight the strength and the weaknesses of the pattern of environmental education provided in the school of our country.

Related Studies

Singh (1988) developed a criterion-referenced test in environmental studies and found 20.6 per cent students obtained pass score of 75 per cent and above. Gopalakrishnan (1992) found normal distribution of the total environmental education test scores, which implied that studying environmental education had a very good impact on the children. Su (1993) designed a five-part questionnaire to study middle school interest in environmental issues as they relate to science instruction. Ramakrishna (2003) concluded that children exposed to environment related activities instill appropriate behaviour. In this respect Talsma (2005) found that well designed artifact (essays, investigative reports and dynamic computer model) provide significant assessment of students understanding across curriculum content. Findings indicate that student's understanding's of the stream ecosystem began as unconnected pieces of knowledge but increased substantially on both breadth and depth across the chemistry, biology, earth science and environmental science domain. Travis (2007) highlights benefit of ecology course on environmental attitude of students. Yadav and Bharati (2007) revealed that 33.09 percent of environmental awareness may be attributed to the scientific attitude. Bhawalkar (2008) found that teaching after formulating specific aims for the cognitive, affective and psychomotor development could enhance the level of environmental awareness among students. Misra and Verma (2008) concluded that organised co-curricular activities programme to enhance the learning of B.Ed. students about the environment was found to be beneficial.

Objective

To compare the environmental concepts grasped by the students of I.C.S.E., C.B.S.E. and U.P. Board with the help of 'Environment Comprehension Test'.*

* The paper is based on the doctoral work of the author conducted during 2004-2009.

Sample

A sample of 300 students of Class VIII from six different schools of Lucknow city affiliated to I.C.S.E., C.B.S.E. and U.P. Board were taken. Disproportionate stratified random sampling method was applied to select two schools affiliated to I.C.S.E. Board, two schools affiliated to C.B.S.E. Board and two schools affiliated to U.P. Board. Then fifty students from each school were randomly selected for the investigation. Thus, total 100 students were selected from each board of education.

Tool

The tool named as "Environment Comprehension Test' consisting of 50 multiple choice objective type items for evaluating student's understanding of environmental concerns was used. The tool is prepared by the investigator. Expert opinion and item analysis procedure was adopted for construction of the test. Items were based on the following ten broad categories.

I. Environmental Structure
II. Environmental Balance
III. Energy Resources
IV. Environmental Degradation
V. Agriculture
VI. Animal Husbandry
VII. Human Health and Hygiene
VIII. Impact of Population on Environment
IX. Conservation of Environmental Resources
X. Environmental Management and Sustainable Development

Data Collection

After procuring permission from the Principals of the selected secondary school, 'Environment Comprehension Test' consisting of 50 Items was administered on the sample of fifty students from each school. The students were given proper instruction regarding the test. The students were able to complete the test in 45 minutes.

Scoring

The scores of the present test ranged between 0-50. Each item with correct response carries the value of 1 mark and the wrong responses were given zero marks. Total score of each student was obtained. Further category wise score of each student was also obtained by adding the individual scores of the item belonging to that category.

Statistical technique employed

The F-ratio is determined for each of the ten categories of environmental concerns and the F-ratio is also determined for the total scores obtained by the students of I.C.S.E., C.B.S.E. and U.P. Board.

When the F-ratio is found significant t-test is applied to obtain the significant difference between the means.

Results

1. The mean score (M = 38.56) of I.C.S.E. students in 'Environment Comprehension Test' is significantly higher than C.B.S.E. students and mean score (M = 36.76) of C.B.S.E. students is significantly higher than mean score (M = 24.33) of U.P. Board students.
2. There is no significant difference in the scores obtained by I.C.S.E.

and C.B.S.E. students in the categories; Environmental Structure, Energy Resources, Environmental Degradation, Human Health And Hygiene, Impact Of Population On Environment And Environmental Management And Sustainable Development.

3. There is significant difference in the scores of I.C.S.E. and C.B.S.E. students, C.B.S.E. and U.P. Board students and I.C.S.E. and U.P. Board students in the categories, Environmental Balance, Agriculture, Animal Husbandry and Conservation of Environmental Resources.

Result Table

Mean, F-ratio and t-values of the Environmental Concerns and its various dimensions for 3-Boards (G_1 = I.C.S.E. N=100, G_2 = C.B.S.E. N = 100, G_3 = U.P. Board N = 100)

S.No.	*Dimensions*	*Groups*	*M*	*F*	*C R Value / t Value*
I	Environmental Structure	1. I.C.S.E.	9.68	89.50**	Group 1-2 1.75
		2. C.B.S.E.	9.26		Group 2-3 10.83**
		3. U.P. Board	6.66		Group 1-3 12.58**
II	Environmental Balance	1. I.C.S.E.	3.50	106.38**	Group 1-2 3.73**
		2. C.B.S.E.	3.03		Group 2-3 10.39**
		3. U.P. Board	1.72		Group 1-3 14.12**
III	Energy Resources	1. I.C.S.E.	0.74	27.95**	Group 1-2 1.16
		2. C.B.S.E.	0.67		Group 2-3 6.16**
		3. U.P. Board	0.30		Group 1-3 7.33**
IV	Environmental Degradation	1. I.C.S.E.	2.42	29.06**	Group 1-2 0.75
		2. C.B.S.E.	2.51		Group 2-3 7.08**
		3. U.P. Board	1.66		Group 1-3 6.33**
V	Agriculture	1. I.C.S.E.	1.04	9.25**	Group 1-2 4.30**
		2. C.B.S.E.	0.67		Group 2-3 2.21*
		3. U.P. Board	0.86		Group 1-3 2.09*
VI	Animal Husbandry	1. I.C.S.E.	0.73	27.56**	Group 1-2 4.20**
		2. C.B.S.E.	0.94		Group 2-3 8.40**
		3. U.P. Board	0.52		Group 1-3 4.20**
VII	Human Health and Hygiene	1. I.C.S.E.	8.42	58.25**	Group 1-2 1.88
		2. C.B.S.E.	7.93		Group 2-3 8.34**
		3. U.P. Board	5.76		Group 1-3 10.23**
VIII	Impact of Population on Environment	1. I.C.S.E.	3.11	59.47**	Group 1-2 1.08
		2. C.B.S.E.	2.97		Group 2-3 9.53**
		3. U.P. Board	1.73		Group 1-3 10.61**

IX	Conservation of Environmental Resources	1. I.C.S.E.	2.70	55.92**	Group 1-2	2.61**
		2. C.B.S.E.	2.36		Group 2-3	7.92**
		3. U.P. Board	1.33		Group 1-3	10.53**
X	Environmental Management and Sustainable Development	1. I.C.S.E.	6.28	84.89**	Group 1-2	0.68
		2. C.B.S.E.	6.43		Group 2-3	12.04**
		3. U.P. Board	3.78		Group 1-3	11.36**
XI	Ten dimensions of Environmental concerns	1. I.C.S.E.	38.56	146.54**	Group 1-2	2.00*
		2. C.B.S.E.	36.76		Group 2-3	13.81**
		3. U.P. Board	24.33		Group 1-3	15.81**

*Significant at 0.05 level ** Significant at 0.01 level

Discussion

Results of the total scores of 'Environment Comprehension Test' reveals that performance of U.P. Board students was lower in comparison to I.C.S.E. and C.B.S.E. Board students while I.C.S.E students performed better than C.B.S.E. and U.P. Board students. The presentation of the matter in the I.C.S.E. textbook *Living Science* series of Physics, Chemistry and Biology (Ratna Sagar Publication) is done in a systematic and well-organised way under various headings and subheadings. This could have facilitated both teachers and students of I.C.S.E. Board to gain knowledge about environmental aspects from books. Clarity and systematic presentation of content in textbook help in building the knowledge in the sequential form in the mind of the students. C.B.S.E. textbook *Science and Technology* (NCERT Publication) are interactive and informative but sometimes do not cover the environmental aspects in a comprehensive manner. This creates gaps in the knowledge and if teachers are unable to satisfy the curiosity and fill the gaps, students may not comprehend the aspects clearly and this may be the reason that students of C.B.S.E. Board could not perform as good as I.C.S.E. students. On the other hand U.P. Board textbook *Gyan Vigyan* (U.P. Basic Shiksha Parishad) has too much information related to environmental concerns with many related activities but these informations are not accompanied with adequate descriptions and good pictures. Great efforts on the part of teachers need to be taken to explain elaborately the various aspects of environmental concerns with proper illustrations. May be to compensate these drawbacks of the text enough effort are not made by the teachers so the performance of the U.P. Board students is comparatively weak.

The textbooks referred in this study are of older edition as the data is taken from the Ph.D work of the investigator. Although the study lays emphasis on the comprehension of environmental aspects by the students of I.C.S.E, C.B.S.E. and U.P. Board in which various factors are considered including teaching methods, environment related activities, mass media etc. Textbooks prescribed at that time are only one

of the many factors responsible for the comprehension of environmental aspect.

With respect to the category 'Environmental Structure', the results showed that I.C.S.E. and C.B.S.E. students comprehended equally this aspect but U.P. Board student's level of comprehension was weak. Further analysis revealed that more number of I.C.S.E and C.B.S.E. students scored correct in the Item related with 'Non-living' component of environment and 'ozone layer' than U.P. Board students, this may be because U.P. Board texts do not cover the important non-living component — Air, water and soil in the form of content. The information regarding 'ozone layer' should be provided by the teachers if it is not presented in the text as this is an important aspect of environment. It was also revealed that very less number of C.B.S.E. students scored well in the Item related to 'plant adaptations in the desert area' while better performance was seen in I.C.S.E. and U.P. Board students. U.P. Board text deals separately with the chapter related to 'adaptation' so performance of students was better in this aspect. Concept of plant adaptations to the changing environment is not very clear among C.B.S.E. students. Although I.C.S.E. and C.B.S.E. text do not deal with this aspect but motivating the students to look around the nature and derive their own conclusions can enable them to understand about adaptation. Unawareness of I.C.S.E. students was revealed in the Item related to 'Inhabitation of Gorilla' although the text has separate coloured pages showing pictures of animals with adequate information under the heading Nature's Pride. This shows that students had overlooked this special feature of the text and had given more emphasis on the written text of the chapters. Performance of U.P. Board students was better in Item related with example of 'microorganism' and useful activity of microorganism but not so good in Item related with role of microorganism in various diseases and even the students do not know why knowledge about microorganisms is essential. The concepts which create confusion in the mind of students should be dealt separately in the text and by the teachers in the class so that clarity about the concept develops in the mind of the students. Results also reveal that students of the three Board know better about 'animal adaptations' in comparison to 'plant adaptations'. This shows general interest of the students to know more about animals and their various adaptive features.

Comprehension of I.C.S.E. students was better than C.B.S.E. students and understanding of C.B.S.E. students was better than U.P. Board students in the aspect 'Environmental Balance'. Less number of students scored correct in the Item related with 'role of eagle in food chain' which shows that students of three boards do not have adequate concept of role of various organisms in food chain. This weakness is of much concern as students of this age group should understand the importance of each and every organism in the maintenance of balance in the environment. A result also revealed that concept of 'water cycle' is better achieved by I.C.S.E. than C.B.S.E.

students. U.P. Board student's concept of ecosystem is better than other aspects of environmental balance including water cycle. This may be due to the fact that U.P. Board text has activities related to observation of nature and various type of ecosystem. Ramakrishna (2003) also concluded that children exposed to environment related activities instill appropriate behaviour. The results of the category 'Energy Resources' revealed that I.C.S.E. and C.B.S.E. students have better concept of 'renewable and non-renewable energy resources' than U.P. Board students. The striking feature is that U.P. Board text has separate chapter dealing with this aspect with many examples but if the content is not explained in the classroom giving daily life examples students are unable to relate these aspects with their day to day life.

I.C.S.E. and C.B.S.E. students equally comprehended the aspect 'Environmental Degradation' but U.P. Board student's comprehension is weak in this aspect. Further analysis revealed that students of all the three Boards do not have good concept of air pollutants and acid rain although the concept of water pollution and disasters are better gained by them. Knowledge about pollution is not enough until and unless students understand about the cause and effects of pollution which include aspects like air pollutants and acid rain. Teacher should explain environmental problems highlighting cause-effect relationship to students.

'Agriculture' is the only aspect in which comprehension of U.P. Board students is better than C.B.S.E. students. I.C.S.E. students also comprehended well this aspect. All the three textbooks deals separately the chapter related with agricultural practices in detail but U.P. Board text deals with many activities related to observation and collection of informations from the farmers in the field. This may be the reason of good performance of U.P. Board students in this category. Students of all the three board scored comparatively higher in the item related with harmful effect of insecticide with respect to Item related with use of compost as a fertiliser. This shows that students know about harmful impact of some agricultural practices on our environment but they do not have a better understanding of what kind of agricultural practices are safe and good for us and why farmers should adopt these practices.

Results of 'Animal Husbandry' showed that C.B.S.E. students have a better understanding of revolution associated with animal rearing practices than I.C.S.E. and U.P. Board students content of animal rearing practices is accompanied with beautiful picture in I.C.S.E. and C.B.S.E. text while lack of related picture is seen in U.P. Board text which could not motivate the students to know more about this aspect.

The results showed that I.C.S.E. and C.B.S.E. students comprehended equally the aspect of 'Human Health and Hygiene' but comprehension of U.P. Board students was weak in this aspect. The awareness and knowledge on such issues could be developed by organizing awareness programme in the school and encouraging student's participation. Further analysis revealed that students studying in different boards have knowledge about noise pollution and

its adverse effects on human health. This shows that students are sensitive towards the environmental problems faced by them in day to day life. C.B.S.E. and U.P. Board students have better understanding of various vaccines used against different diseases than I.C.S.E. students while students of U.P. Board do not have the concept of radioactive pollution and its effect on human health in comparison to I.C.S.E. and C.B.S.E. students. Results show that U.P. Board students have better understanding on how to prevent themselves from electric shock than the students of the other two boards. Sufficient number of students of the three boards know about common medicines. Sufficiently large numbers of U.P. Board students know about various symptoms of AIDs as their text cover this aspect in comprehensive manner. On the other hand I.C.S.E and C.B.S.E. text do not cover this aspect but the students of these boards know about AIDs, this may be due to excessive media coverage of this issue. Knowledge about various factors affecting human health, difference between communicable and non-communicable diseases, prevention of diseases and role of vitamins in our life is more in I.C.S.E. and C.B.S.E. students than U.P. Board students. Since these health issues are of immediate concern of students belonging to the growing age group, they need to be made more knowledgeable and aware about health issues.

Regarding the category 'Impact of Population on Environment' the results showed that I.C.S.E. and C.B.S.E. students comprehended equally this aspect and better than U.P. Board students. Further analysis revealed that less number of students know that 80% of the total energy consumed depends on petroleum products. On the other hand large number of I.C.S.E. and C.B.S.E. students scored well in the item related with cutting of trees, which leads to soil erosion, while U.P. Board students do not have comprehensive knowledge about various effects of depletion of natural resources. More number of C.B.S.E. students were aware that the Tiger is an endangered species in comparison to I.C.S.E. and U.P. Board students although recently wide media coverage and campaigns are done on this issue.

The results showed that comprehension of I.C.S.E. students was better than C.B.S.E. students while performance of U.P. Board students was weak in the aspect 'Conservation of Environmental Resources'. Large number of I.C.S.E. students are aware that which source of energy they should use minimum and aim of establishing Dudhwa National Park than C.B.S.E. and U.P. Board students. Sufficient numbers of students belonging to three boards know about the method of energy conservation in kitchen and contribution of afforestation. This is a good fact that students know about this as they could contribute in conservation of environment by taking small measures in day to day life.

The results showed that I.C.S.E. and C.B.S.E. students comprehended equally the aspect of 'Environmental Management and Sustainable Development' while U.P. Board students comprehension was weak. Students of the three board were aware about the advantages of a green park in the locality,

use of lead free petrol in the vehicle, Chipko movement and prohibition of polythene bags as these issues are related to common man's daily life experiences. Large number of C.B.S.E. students knew about organisations working in the area of conservation of natural resources as compared to I.C.S.E. and U.P. Board students. Striking feature that was revealed from the analysis is that more number of U.P. Board students knew how to reduce the increasing concentration of green house gases than I.C.S.E. and C.B.S.E. students. U.P. Board students might have been given exposure on this issue by environment related programmes. However, sufficient number of I.C.S..E and C.B.S.E. students knew how to keep the environment of their locality safe and healthy for several years than U.P. Board students. Results reveal that students generally did not know much about Environmental Planning and Management. Thus, it shows that there are gaps in knowledge and awareness about environmental issues among students and if efforts are made in the right direction by teachers and curriculum planners it will enhance their knowledge enabling future citizens to make positive efforts to save their environment.

Conclusions

1. I.C.S.E. students comprehended well the various aspects of environmental concerns than C.B.S.E. students and C.B.S.E. student's comprehension was better than U.P. Board students.
2. I.C.S.E. and C.B.S.E. students equally comprehended the aspects of Environmental Structure, Energy Resources, Environmental Degradation, Human Health and Hygiene, Impact of Population on Environment and Environmental Management and Sustainable Development.
3. Comprehension of I.C.S.E. students was better than C.B.S.E. and U.P. Board students in Environmental Balance, Agriculture and Conservation of Environmental Resources.
4. Comprehension of C.B.S.E. students was better than I.C.S.E. and U.P. Board students in Animal Husbandry.
5. Only in the aspect agriculture, the comprehension of U.P. Board students was better than C.B.S.E. students but still weaker than I.C.S.E. students.

Educational Implications

1. Comparative analysis of comprehension of environmental aspects on one hand bring forward the positive aspects of environmental education programmes and on the other hand also help in identifying the gaps in the knowledge imparted to students regarding environment and related issues.
2. Evaluation of environmental education can be done by thought provoking and understanding based questions. Further, evaluation can be done by providing a situation or a problem related to environment and obtaining views

and solutions of students with respect to it. Judgment could be done on the basis of eco-friendly solutions provided by the students.

3. Comparative study of students regarding comprehension of environmental aspects highlights the changes which need to be brought in the curriculum, textbooks, teaching methods and co-curricular activities adopted in the school for the understanding of various aspects of environmental concerns.
4. Teachers can select environment related topics and organise debate and discussion in the class so that students can gain better understanding of environment related issues given in the textbook.
5. Teachers while teaching their own subject can also stress on the environmental aspects related to the topics and give necessary explanations wherever required. For giving such explanations teachers should up-date their own knowledge regarding various environmental issues.

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Online Assessment of Students
An experience of CIET Online course on Action Research in Educational Technology

Rajendra Pal*

Abstract

The adoption of on-line assessment may help to manage large volumes of marking and assessment-related administration efficiently. The automation of routine online tasks may have the potential in the long-term to provide time and cost-efficient student assessment. The present evidence of Action Research course conducted at CIET advocate that on-line assessment can help significantly to the teachers.

Introduction

The purpose of this paper is to describe the process of assessment of students during online courses in Education. The Central Institute of Educational Technology (CIET), a constituent of NCERT has started an online course on Action Research in Educational Technology. The first course of the institute was launched in November 2010 and the second course was completed by 2012. The author of this paper was involved in the development of the course structure, self learning material (modules) and also played the role of course teacher and administrator.

Presently, with the emphasis on Continuous and Comprehensive Evaluation (CCE), the assessment tasks have become diversified. The teachers need a range of skills of assessment and therefore, feel burdened to provide timely and informative feedback to the students on their progress.

The computer based online assessment is a natural outcome of the increasing use of information and communication technologies to enhance

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learning. There are growing expectations for flexible student assessment in education. ICT have certainly opened up significant possibilities for transforming the role and practice of assessment in education. The full possibilities are probably yet to be realised. However, online assessment through web based courses has opened the ways to review the students' progress more flexibly.

About the course

As we are aware that Action Research is a significant activity for the District Institute of Education and Training (DIET) and State Council of Educational Research and Training (SCERT). These institutes are also having educational technology as an important cell to perform the teaching learning activities more effectively.

However, working with teacher educators at many DIETs and also sharing experiences of other DIETs through interaction and research reports. It is revealed that they face problems in the implementation of various concepts/devices using educational technology during their training/classroom practices. Therefore, an online course was designed for teacher educators of DIETs and SCERTs of India. The purpose of this course was to provide teachers/ teacher educators with the knowledge and skills to integrate Action Research as a teaching and problem solving methodology.

The two credit course consists of five modules on Action Research and Educational Technology. These modules were (i) Understanding Action Research; (ii) Educational Technology; (iii) Educational Action Research Process; (iv) Data Collection and Interpretation (v) Report Writing. The course announcement, application and registration of students are completely an online process. The duration of the course is seven week in which the first week is devoted for introduction among students and teachers. During this week the students also explore the features of online courses. The next five weeks are devoted for five modules one in each week. The content and assignment are available online for each module during their respective weeks. Students are expected to submit assignment(s) within the week. The last week is given for development of Action Research Proposal.

Assessment process

Actually the performances of the participants in this course were assessed through continuous and comprehensive evaluation process. Both the modes of interaction i.e. synchronous and asynchronous were utilised for assessment of the students. The following process was opted to assess the continuous performance of the participants.

Assessing through trial test

This test is not exactly to assess the performance in the content or subject area, but to assess the skills and potentials of trainees in the general operations of computer and internet and giving a practice to get ready for the entry behaviour test.

Assessing entry level behaviour through test

This test was designed in the form of pre-test exclusively as Multiple Choice

Responses (MCR) in synchronous mode. There were 25 items related to the Action Research and Educational Technology. Two attempts were permitted and 30 minutes approx, were fixed for one attempt. Therefore, test was available for one hour's duration in synchronous mode.

Written Assignments

These assignments were mostly based on the modules given to the participants every week. These assignments were provided to the students through asynchronous mode. The participants also submitted the task in asynchronous mode. The comments were provided to the students on the submitted assignments as feedback.

Participation in synchronous interaction

The synchronous lectures of experts in the field of Action Research and Educational Technology were arranged for the participants and live interactions were held to assess their competencies in the subject. Two way question and answer session were conducted after content presentation of the experts.

Projects

The participants were requested to prepare the proposals of Action Research in Educational Technology and were asked to take the theme from the actual class room situation. The participants first submitted their topic and after approval they had submitted the proposals. They were also given the feedback by the coordinator. In some cases the revised plan of proposal was requested to submit. The teacher trainees were expected to carryout this research in their DIETs and SCERTs.

Final assessment

The performance of the trainees was assessed with the help of end test (post test). This was designed as parallel to the entry level test (pre-test). This was also a synchronous test for the trainees. The performance of the trainees was assessed by comparing the entry level test with final test. The trainees' score were calculated through an automation process.

Table 1

Summary of N, df, Mean SD and "t" value

	N	*df*	*Mean*	*sd*	*"t" value*
Pre test	20	19	15.4	2.70	4.67
Post test	20		20.8	4.86	

*Significant at .01 level

The above table shows that the calculated value of "t" is 4.67 which are highly significant at .01 level. In other words the achievement score of trainees in the post-test is higher than the pre-test. It further signifies that the students learned concepts of Action Research and Educational Technology through online course. In other words we can say that online assessment of trainees shows positive impact on their learning.

Some observations about the course (as coordinator and author of the course)

- It was observed that the teacher educators at the elementary level are enthusiastic to take part in online course initially.
- Teacher educators are reluctant to work with web based environment.

- Most of the trainees were hesitant to synchronous interaction with teachers and experts.
- Some trainees are very prompt in submitting their assignments, however, some do not take interest in the assignments.
- After the test or submission of the assignments the trainees are eager to know about their performance.

The author is thankful to Professor Vasudha Kamat, Vice-Chancellor SNDT University, Mumbai for her initiation and motivation to develop and run this online course.

Conclusion

It may be concluded on the basis of the above description that the participants' assessment was done through online process using CCE. In other words the performance of the participants was assessed based on entry level test, assignments, discussions, interactions, project work and final test etc.

In a climate of increasing academic workloads, the adoption of on-line assessment may help to manage large volumes of marking and assessment-related administration efficiently. The automation of routine online tasks may have the potential in the long-term to provide time and cost-efficient student assessment. The present evidence of Action Research course conducted at CIET advocate that on-line assessment can help significantly to the teachers.

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Book Review

They all want to write

Authors : Alvina Treut Burrows, Doris C. Jackson and Dorothy O. Saunders

Year : 1983

Publisher : Holt, Rinehart and Winston, University of Michigan

The book is rather old, first time written in 1939, and subsequently revised in two later editions, the 3rd came in 1964, which I am reviewing. It is about the experiences of 4 teachers (three being the authors of the book, the fourth having passed on) in their school, about experimenting with processes that could help children write with freedom, originality and skill. I found the book delightful and very insightful. It narrates actual experiences with 100 early learners, documenting their evolution for roughly 4 years, from hesitant, unskilled writing to becoming confident, self-driven authors, slowly gaining a sense of personal mastery over creation of written texts. The strength of the book lies in the fact that it analyses these processes in great detail and gathers insights, evolving and suggesting pedagogic practices for other teachers which would have relevance for all early writers. The authors have also tried to gather further insights and refined their ideas over a subsequent period of 25 years, and have tried incorporating these in the later editions.

The book gives a large number of delightful examples of these writings of various children, along with the circumstances interacting with personalities, amidst which those texts emerged. Many examples are given as actual photo-pictures of what the child wrote, enabling the reader to see how powerful the child's urge to write was, and how s/he had to struggle with the mechanics of writing, labouring with spelling, arrangement or spacing, with frequent cutting. Some of these writings display a high quality of expression and narration. The book separately gives accounts of the first hesitant beginnings of writings, going further to detailing of phases when the initial inhibitions were won over, and children got into more demanding work. It also details case studies of 10 children with varying writing skills, styles and their individuality reflecting into their writings evolving over the years.

Before starting this experiment, the authors in their prior experiences as language teachers had found children's productions in the name of

creative writing as 'stilted and meagre' products, not worthy of the name 'creative', and found that children wrote because they had to. Thus, started this prolonged experiment, which was primarily guided by the principle of human beings' genuine *need* to express and communicate, that shapes itself in writing.

The authors differentiate between two seemingly antagonistic kinds of writing, 'utilitarian and artistic', which seem to serve different needs of the individual and make different demands on the author, and hence necessitate differing opportunities for writing and training for enhancement. The authors think that 'the complete freedom necessary for the life of creative spirit has always stood opposed to the methodological acquisition of skills and techniques'. Yet, through their experiments think that 'a more constructive synthesis could be made of these apparently disparate elements', if an attempt is made to 'zealously guard… the reality of the one and the freedom of the other'. The authors have made, in their pedagogy, a clear demarcation between these two kinds of writing: 'practical' and 'personal'. Practical writing has been defined as the writing linked to daily life, arising from genuine utilitarian need of communication between people, consisting of letters, reports, notices, posters, records and expository writing. Personal writing consists of free expression that may take the form of stories, poetry, emotional outlets or fiction of any kind. The two were encouraged very differently, utilising their different philosophical origins, with separate pedagogical principles and techniques. Personal writing was encouraged as a free, unchecked, unbound enterprise for the sheer joy of doing it, whereas, practical writing was assisted with ample training.

The authors think that any elementary school curriculum that pre-determines units of study cannot capture or engage the spontaneity of the child's mind at any given time and interest. Personal writing, which is spontaneous capturing of thoughts and feelings, using 'words to paint pictures or to catch a special thought or mood' caters to the need for free expression for the individual, where 'the source lies wholly within the individual and where there is no final authority other than personal taste' or any 'shaping to fit external standards'. To be kept as a 'joyous and genuine outlet, it cannot be straitjacketed in subject and form'.

Thus, personal writing was initiated in a very natural fashion, through building a good literary atmosphere, by friendly, unhurried sharing of good literature with children, where everyone collectively chuckled, laughed, or shivered to enjoy these sessions. In this groundwork, the habit of appreciative listening was consciously established. Stories written by other children were deliberately read out to make children want to write their own. Care was also taken to read some stories in which adult frailties or children's cleverness were demonstrated, to dissolve resistance or the 'fear of adults' displeasure'. Besides, positive remarks by listeners were encouraged, while negative criticism consciously checked, underscoring how fault-

finding interferes with the enjoyment of the activity. Such sessions were continued till children were in the mind-set of kindly acceptance of most offerings without condemnation, and started showing signs to want to start telling their own stories, which often followed a casual suggestion by the teacher. Story-telling began with a few children with appreciative listening by others. Soon others were also encouraged to make their own stories. Drama or play-acting of some stories in the group added to this interest. If children wanting to make stories could not come up with ideas, teachers would suggest use of any existing characters in old stories. It was discovered children found it easy and fun to start with familiar, well-loved characters, e.g. a family with 5 baby-bears, which was built upon by almost every child. The transition from making stories orally to writing was only possible though a long phase where the children dictated their creations to the teacher.

After considerable enjoyment of story-creation, listening and dictation, some children showed a willingness to write their own stories. Free time was provided in which those who were willing could start writing, while others could do any work of their liking like reading, drawing etc. No force or compulsion was there to write, no asking for the finished product unless children brought it to show by themselves, neither stigma for not writing/finishing, while willingness to write was encouraged. They often had trouble writing words, and so the words they asked for were written on the chalkboard.

To save these attempts at free-expression from any burdensome effort, these writing sessions were carefully freed from any checking, correction, comment on technique, spelling, penmanship or appearance, since the labour of putting down on paper itself was often tiring for children. Children wrote about themselves, about their own experiences, or characters they subconsciously related to, mostly their intuitive world where 'the familiar and the wished-for were happily mixed'. In fact, teachers found that 'ordinary characters rarely touch the well springs of imagination, but fall instead into dull, conventional moulds. It is the half- fanciful characters that set invention working....'

The teachers took great care to graciously accept with sincere appreciation whatever children wrote, even when they found some entries too meagre and strongly resisted any urge or impatience to suggest improvements. They found once the children were freed from adult coercion, correction or 'arbitrary direction' towards adult standards, and were well assured that anything they wrote would be acceptable, they simply wrote to please themselves or to entertain their peers. At times, stories verged on impertinence, a 'mild outburst against adults', but no adverse reaction to such things was shown by teachers. The presentation of stories in front of the class was assisted by teachers, through consciously bringing in dramatic presentation, which helped in highlighting the drama and emotions in a story, and thus holding

the audience's interest. As children grew up, they eventually took over the presentation of their own stories.

These teachers were also careful about what to appreciate, because they wanted to build in the child's consciousness a sense of good writing. This would require children as authors earning spontaneous appreciation and delight from their audience, the other children. Teachers did not comment on everything, and even when they did comment, it was done unobtrusively, in sharing sessions with the whole class. The method was to appreciate those elements that would build toward further writing, like an original idea, a fresh invention/observation, or the vivid, individual expression and honest individual flavour. However, teachers note, 'because each story is woven out of his (the child's) own being, the glow of success is a peculiarly personal and vitalising one…the child unconsciously identifies himself with the protagonist of his tale and accepts as his own, the praise and approval accorded to his hero….for a brief time he is not a child, subject to the limits set by adults, but a being with omnipotent power who moves characters about as he wills'….Thus, his stories awaken in him a 'sense of innate power', of being a 'clever and capable person' in front of his peers.

However, it was also realised that praise or blame could equally work as deterrents to free writing. While criticism could easily shatter confidence, praise could bring in self-consciousness, bringing in stress for the child that she may not be able to equal her own performance again. Hence instead of evaluation, attention was always on how the story affected the audience. The real concern for the teachers was not so much in the 'specific product as in the sincerity and on-goingness of the writing processes. Rarely were stories gathered for publication or selections for permanent recording, since this immediately lead to self-consciousness, comparison, 'model-building' and also stagnation. All writing was for 'release, satisfaction, and the power it affords', rather than 'commendation'. Story-writing was like play, with a spirit of adventure and fun, to be done with the whole heart. One poignant question that troubled these teachers in initial years of experimentation was whether writing for sheer joy would show improvement in skill over the years. They found overwhelming evidence for this happening, as these children, with their evolution, surpassed any other groups the teachers had ever encountered.

Poetry writing by children was stimulated by first making them 'paint a picture in words' inspired by their own inner imagery after some event that affected or fascinated them deeply, e.g. a storm. Another way to inspire them was by reading out poems written by other children and even adults, pointing to parts that 'sounded different' or were 'a new way of talking'. But care was taken not to make these sessions too prolonged or overwhelming, so as to not make children start imitating or losing faith

in their own words or ideas. Teachers also normally chose free verse rather than rhymes or strongly patterned poetry, because they felt 'a child's ear often is so captured by the rhyming that he misses the meaning and the individual essence'. In poetry writing sessions, an appropriate mood was built by reading out poetry, getting children into a quiet, dreamy state, working or thinking alone. Once children begin to start thinking of poetry the teacher would act as a scribe to take dictations, because often the rush of thoughts was too fast and complex for an early writer to put down in writing. These poems were read out to the whole class, directing attention at parts that bring out individual flavour, or were vivid and fresh. Nothing was belittled or given suggestions for changes or improvements. The author-teachers feel 'it is just as dishonest for an adult to change a child's utterances as it is for a child to copy the work of another and call it his own.' In later grades, as children gained mastery over the mechanics of writing, they started putting their poems on paper by themselves.

Directly in contrast to personal writing, it was found important to adopt a totally different pedagogy for practical writing. Whereas no need was felt to tamper with personal writing, with practical writing, a direct and thorough teaching was considered essential. Writing, however, was seen as a part of the continuum of seeing, talking, drawing, painting, listening, planning and reading. An insight given by authors here is: 'in the primary grades, abundant experience in oral expression is more important in the development of ability to write than the actual writing itself'.

Practical writing was driven purely by purpose, and the children from the very outset were clear as to why a certain text needed to be written. E.g. for the first graders the purpose of writing emerged from planning a picnic which excited every single child. Writing in this case was necessitated by sending requests to parents, for making lists of purchases and costing, all of which was done by children collectively, assisted by teachers or senior students. Every child saw the need for neatly writing text that had a real purpose, once the text was discussed and written on the board. After greater practice, children started making their own messages, letters or notes, which were dictated to teachers in the early phases. Even when the teachers acted as scribes for the child-composer, the child added her personal touch to this note by putting in details like date, name, the greeting or drawings of her choice. The teachers encouraged children to give an individual, personal touch to all such writing, by asking for 'something in your letter that is just like you'. Often the teachers had to work on the first draft of letters individually with each child. For certain tasks, children were given opportunity to experiment on rough paper, so that they could produce something for personal satisfaction or pride, for 'the vitalising pleasure of working, not

for the teacher's approval, but for his own'. Children made things like titles, folders for personal work, posters, and advertisements for upcoming events, plans and records. The authors think 'when children care about what they are doing, they work far harder than any teacher would have the heart to expect'. But they also warn that things like letters and notes, even though provide valuable opportunities for writing, if done too much can lead to 'distaste of the activity itself'.

The more challenging arena of report writing in later grades necessitated much more experience of the subject matter, ability to organise and present ideas in sub-themes, as well as the skill of writing itself. Teachers wanted to save children from copying, or 'mere verbalism'. For this, it was important for children to acquire adequate first-hand familiarity with the subject beforehand, to digest it thoroughly, so that it could be presented as their own words. The process started with finding out enough about a subject from surroundings, real life, discussions, books and so on, and then reporting it orally. Sufficient help was given by teachers to enable a child to break up a topic, look up references, and to organise the material gathered. Often the child read out her material to the teacher and discovered that it seemed unpolished before presenting it to the class. A real challenge here was to save children from sheer fatigue, and it was found wise to make use of conversation as an economical step towards refining expression, by verbally sorting of ideas and discussion beforehand. Writing periods were kept deliberately short, and one topic given sufficient days to avoid daily fatigue. Many times children worked in groups over different aspects of the same subject. Most of the practical writing was read out to the class, made a part of a book, a larger discussion, or served some such 'real purpose' of finding out facts. The real test of clarity came from feedback from the rest of the class, and for the child author, this test was 'almost as tangible as seeing that a handmade boat really sails'. The teachers feel that 'a sportsman like attitude of seeing how suggested improvements would make the thought clearer in practical writing can be acquired by almost every child'.

This book gives a rich insight to the reader into a real journey of experiences with children. If some weakness can be pointed out, it is that the reader gets no idea about the social, cultural, class, gender or linguistic differences amongst children that were part of this experiment, and the experimenting teachers do not take note of such complexities. One does not know if there were children who faced difficulties because of being first generation learners, having no familiarity with written text or its purposes when they entered school, or had a different first language other than English; all of which may have led to difficulties of comprehension of classroom discourse or the written symbol system. The impression created by the book is that of mainstream middle-class children interacting with

teachers from the same class. It is possible that such discussions are not part of the book because they were not so much part of the education discourse in the 30's when the book was first written. However, even when such perspectives of differing social/ cultural location of children started emerging in subsequent decades, they have not come to be mentioned in the book in the later editions. Yet, I feel, this experiment has relevance even today, giving valuable insights into the process of children becoming independent and free authors. One important reason why I think so is that the method of these teachers is based on equal respect for the individuality of each child, giving sufficient freedom and respect and there is no element of coercion or comparison between children. I think that even children with initial socio-cultural differences would be able to benefit from such an enabling environment. The fact that the teachers gave great importance to listening, talking and dictating by the child, and use of the child's own words, would make a child with linguistic differences also to grow in such a system. Such a method would be valuable for teachers in an Indian classroom as well, where multilingualism and social differences are very real, as long as teachers imbibe the spirit of this experiment, that of giving space to all words and worldviews that children bring with them to class.

If one were to view the method of these four teachers in the light of organic writing encouraged by Sylvia Ashton Warner, in her experiment with Maori children (Ashton Warner, S., 1963), I feel, the method used by the authors of this book is also organic. Writing is not isolated or separated from the whole range of ideas, thoughts, feelings, expression, talking and genuine need for communication, but is developed as a part of life lived by children with their peers or homes, growing out of their own meanings and views of the world. Instead of children choosing significant words for writing or key vocabulary, as in Warner's class, here children choose ideas, thoughts and feelings to express themselves. The words they choose in this expression are also their own. One major strength of this method is that genuine motivation and skill in creation is built first before any writing is attempted. The process of verbal creation in initiated much before written creation through considerable environment building, inspiration and encouragement. Children create many short or long texts of their choice verbally before they attempt to write, and gain considerable mastery, joy and pride in this process of creation through speech first. Since writing is laborious and their initial attempts at writing by themselves would be brief and meagre, with writing unable to keep pace with their mental ideas, they are given considerable assistance by teachers through dictation for a long time, to save them from fatigue, boredom or drudgery. Also techniques and norms of practical writing are consciously built through patient assistance, but even this is done without pressure or coercion, with the help of genuine motivation and

need. The only standards of expertise to be aimed for all kinds of writing are understanding, approval and appreciation of the child's peers, thus building in the child a sense of an organic whole of writer-storyteller-audience, of which the writer aspires to be a part. In totality, it seems, and as is claimed by the authors of the book, the method helps to turn children both into artists and artisans, of both the art as well as the craft of writing.

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Promoting Quality Elementary Education
The Role of Local Self-Government

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Abstract

The present paper reports the findings of a research study that explores the role of local self-government in promoting quality of elementary education in Kerala. Adopting survey and case study methods the investigation brought in to highlight twelve categories of indicators that local self-governments grounded their interventions in the field of school education. The local self-governments provide strong support for infrastructure development and academic programmes of schools. The programmes and activities of the schools are formulated, planned and implemented under the control, supervision and guidance of Panchayat Education Committees and Block Resource Centers. Contribution of the local self-governments in the academic domain is confined to resource supports for various programmes initiated by SSA. However, there are gram panchayats that adopt micro level planning for enhancing the quality of school education in a comprehensive way by considering all aspects of school life.

Introduction

Decentralised planning and management of education as a goal set by National Policy on Education 1986 envisaged direct community involvement in the form of Village Education Committees (VEC) for promoting elementary education in India. The Programme of Action 1992 underscored local level planning for ensuring education for all. Establishment of Panchayati Raj Institutions (PRI) at village, sub-district, and district levels by 73rd Constitutional Amendment in 1992 provided greater opportunities for participation of the people in the qualitative advancement of education. The state governments enacted their own Panchayati Raj Acts and also identified a vast array of functions and activities for implementation of programmes at different levels in the

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sectors of education, health, women and child development, and social welfare.

The experience gained from District Primary Education Programme and other projects strengthened the process of involvement of community in educational decisions by shifting the planning mechanism from the state to the district level. Programmes like Lok Jumbish brought down the decision making processes to block level committees. At the grass root level, VEC functioned as the main agency for community mobilisation, school mapping, micro planning, renovation and construction of school buildings and improvement of pedagogical curriculum. In *Sarva Shiksha Abhiyan* (SSA) several kinds of community based institutions such as Parent Teacher Association (PTA), Mother Teacher Association (MTA), VEC and Gram Panchayat, the local self-government elected by the people at the village level, have been involved. The Right to Education Act 2009 entrusted the central and state governments and the local authorities with the responsibility to ensure free and compulsory education to every child. Under the Act it is mandatory to constitute a School Management Committee (SMC) consisting of the elected representatives of the local authority, parents or guardians of children, and teachers. The act also provides powers to governments and local administration to issue direction to the School Management Committee regarding the implementation of the provisions of the act to ensure free and compulsory education to all children up to the age of fourteen.

However, there are several hitches in fulfilling the constitutional mandates by the local administrations. The PRIs, especially *gram panchayats*, discharge few tasks; barring disbursement of salaries in some states, they discharge practically no functions of any significance in the sectors of education (NCF 2005). In an online article P. Selvi reported that most of the VECs in Tamilnadu state were not aware of their roles and responsibilities and they were not functioning on their own; in many panchayats people were not aware of the existence of VEC in their villages and that results in a lack of sense of owning the local school by the local community; majority of the stakeholder of primary school felt that involving in curriculum/ syllabus designing, teaching-learning process and preparation of teaching-learning material were not their responsibility and that they should not involve in such activities.

In contrast to the above scenario Kerala has made tremendous achievements in the decentralisation of educational planning and administration. Under the Kerala Panchayat Raj Act 1994 the responsibility of management and control of elementary schools is devolved to the *gram panchayats*. The PRIs formulate, plan and implement their own educational development programmes. They undertake programmes and activities in collaboration with the state education department, SSA and other non-government agencies to enhance the quality of school education. This paper reports the results of a study conducted by Regional Institute of Education, NCERT, Mysore, in collaboration with *Sarva Shiksha Abhiyan*, Kerala.

It explores the role, functions and involvement of gram panchayats in promoting quality elementary education and the interventions made by them.

Objective of the Study

The study focused on the initiatives of the gram panchayats in promoting quality education at elementary level. The specific objectives were to ascertain the role of the gram panchayats in promoting quality of education, the indicators that panchayats considered for making their interventions to promote quality elementary education, the extent to which the gram panchayats performed their educational roles, the educational interventions made by them, and the factors that influenced their involvement.

Methodology

The study was carried out in two stages, which comprised a survey of twenty gram panchayats to find out the ways and extent to which they involved in promoting quality elementary education, and case studies of five gram panchayats. For the survey a multistage random sampling procedure was adopted to select the gram panchayats. At first, five districts were randomly picked up from among the 14 districts of Kerala, then two block panchayats from each of the five districts, and from each block two gram panchayats were selected at random. The sample of the case studies consisted of five gram panchayats, one each from the selected districts. The cases were selected based on the analysis of the survey conducted in the first phase by considering their contributions in promoting quality elementary education.

The data for the study was collected from several documents, stakeholders, and official websites. The documents included the orders and circulars issued by the state government (KILA, 2007), guideline of SSA for organising various programmes, annual budget of the gram panchayats, minutes of the VEC meetings, educational development plans and programme reports of the gram panchayats, school newspapers and magazines, school annual report, teaching learning material developed by the schools. Data from the stakeholders like presidents of gram panchayats, chairpersons of education standing committees of the gram panchayats, members of gram panchayats, implementing officers of the VECs, headmasters of the schools, teachers, *anganvadi* (child care centre) workers, PTA representatives, parents, and community members were collected appropriately through a rating scale, an open-ended questionnaire, an interview schedule and focus group discussions. Six field investigators, including the author were employed to collect and consolidate data from various gram panchayats and schools in the five districts selected for the study. The official websites of the Ministry of Local Self-Government of Kerala, SSA, as well as district, block and gram panchayats were also explored to gather vital data.

Results and Discussion

The role of gram panchayat

The study revealed that gram panchayats have wide range of responsibilities in bringing quality in school education. The information gathered form the Kerala Panchayati Raj Act 1994, RTE Act 1994,

the orders and circulars of the Ministry of Local Self-Government as well as the analysis of the data obtained from panchayat functionaries, parents and teachers reveal that the gram panchayat is vested with the overall management, control and supervision of the elementary schools in its jurisdiction. This includes construction and maintenance of the school buildings; management of the schools established by the gram panchayat including the pre-primary schools; implementing programmes for providing food to the pre-school children; provide midday meal to the school students; distribution of scholarships and grants to the students; provide support to school youth festivals; introduce and promote sports culture in the schools; construction and maintenance of stadiums and play grounds, encourage sports and games, and provide training; take up health education programmes and preventive activities in schools including vaccination against communicable diseases.

The *gram panchayat* has to ensure availability of neighbourhood schools, and the children belonging to weaker and disadvantaged sections are not discriminated against and prevented from pursuing and completing elementary education on any ground. The panchayat has to maintain records of all children up to the age of 14 years; and monitor admission, attendance and completion of elementary education by every child. It has to provide not only infrastructure including school building, teaching staff, learning material and special training facility but also good quality education. Ensuring timely prescribing of curriculum and courses of study for elementary education, deciding the academic calendar, providing training facility for teachers, and monitoring the functioning of schools are the other responsibilities vested with the gram panchayat.

The *gram panchayat* functionaries were aware of the role of the panchayat as specified by the Kerala Panchayat Raj Act in general. But regarding the specific educational functions of the gram panchayat as laid down in the RTE Act and the orders and circulars of the Ministry of Local self-Government, many of the gram panchayat functionaries did not have much clarity. The gram panchayat ward members by and large are not aware of the specific duties of the gram panchayat in promoting quality of school education. At the time of the study RTE was not implemented in the state and hence School Management Committees were not constituted.

The teachers have better ideas about what the *gram panchayat* should do for bringing out qualitative changes in elementary education. In their views the *gram panchayat* should have a progressive outlook about school education. With proper understanding about different aspects of school curriculum it should be able to take initiatives to bring about innovative changes in educational practices. Being a constitutional authority of elementary education the gram panchayat should give strong educational leadership to the schools coming under its purview. It should function as connecting agency between teachers, parents, students, community members and agencies of education like SSA, department of

education, and NGOs for bringing out qualitative improvement in elementary education.

The parents have informed understanding about the role to be played gram panchayats in enhancing quality of elementary education. Their perceptions focus not just on the physical infrastructure, but on the leadership roles, collaboration among various agencies of education, and functional efficacy of the gram panchayats. They express their views in the gram sabhas and school PTAs enabling the functionaries of local administration and other educational personnel to formulate policies and programmes to improve the quality of school education.

Role Performance

The analysis of eight major educational roles of the gram panchayats presented in Table-1 shows that 65% of gram panchayats (10% 'very effectively' and 55% 'effectively') performed their overall educational functions to a great extent. While 15% of the panchayats performed their roles at an average level, performance of 20% of the panchayats were not effective at all. However, no gram panchayat is rated as very poor on the overall performance of the assigned educational roles.

Table 1 : Extent to which Gram Panchayats Perform their Educational Roles

Sl. No.	*Educational Roles of the Gram Panchayats*	*Rating of the Gram Panchayats*				
		Very effective 5	*Effective 4*	*Effective to some extent 3*	*Not effective 2*	*Very poor 1*
1	Management, control and supervision of pre-primary schools/child care centres	20%	60%	15%	5%	0%
2	Management, control and supervision of elementary schools	10%	60%	20%	10%	0%
3	Distribution of Mid-day meal to primary and upper primary schools students	15%	40%	30%	10%	5%
4	Distribution of scholarships and grants to students	35%	25%	20%	20%	0%
5	Management of village libraries and reading rooms and linking with school activities	5%	35%	35%	20%	5%
6	Promotion of manual work culture among the school students	20%	35%	25%	10%	10%
7	Health programmes for the Schools	5%	45%	30%	10%	10%
8	Support to co-curricular activities and school festivals	10%	40%	25%	15%	10%
	Overall performance	10%	55%	15%	20%	0%

Out of the eight major educational roles, 'management, control and supervision of elementary schools' were effectively handled by the gram panchayats. It is found that the gram panchayats, apart from the mandatory contributions to SSA annual budget, provide additional resource support for school development, especially for construction and maintenance of school buildings, additional classrooms, toilets, compound walls, water tanks as well as purchase of furniture, library/ laboratory materials and sports equipments. Many of the panchayats appoint teachers in temporary vacancies through interview of the qualified candidates at the gram panchayat level. Some of the panchayats maintain Teachers Bank, which consists of a list of trained teacher candidates available in the panchayats for appointment in the emerging temporary vacancies in the schools. The gram panchayats also appoint specialist teachers on contract basis in areas like sports, dance, craft etc.

Leadership role of the gram panchayats is very critical in implementing educational programmes of SSA, Department of Education, and District Panchayat. The most outstanding collaborative initiatives in which the leadership role of the local self-government reflected prominently include Neighborhood Learning Centres, Community Living Camps, Acquisition of Competencies in English (ACE), My Tree, and Reading Week. However, it is found that only a few gram panchayats have taken initiatives to plan and implement their own academic programmes to enhance the quality of school education. Though many interventions in the co-curricular areas are reported, only a limited number of curricular programmes are undertaken in the subjects like language, science, social science and mathematics. Out of the twenty gram panchayats only three (15%) organised workshops/training programmes for professional growth of school teachers. The interventions reported in this category include a training programme on English teaching, and three workshops on TLM preparation, school complex and calligraphy. Similarly, only four (20%) gram panchayats undertook motivation programmes for teachers. This indicates that gram panchayats are not fully capable to take up their own academic programmes for schools.

Interventions of the Local Self-Government

The gram panchayats provide strong support for the infrastructure development and academic programmes of the schools. Generally the programmes and activities of the schools are formulated, planned and implemented under the control, supervision and guidance of the VEC and BRC. Contribution of the gram panchayats in the academic domain is mainly confined to resource supports including financial, material and human resources for the various programmes and activities initiated by SSA at the state level. However, local self-government like Thillenkery gram panchayat in Kannur district adopted micro-level planning for enhancing the quality of school education in a comprehensive way by considering all aspects of school life. The following are

some of the important interventions made by the gram panchayats in general.

1. School infrastructure

As mentioned earlier the focus of local self-government in the school education is primarily on infrastructure development. The study revealed that nineteen (95%) gram panchayats made their own intervention for improving the infrastructure of the schools, whereas one (5%) gram panchayat did not have any programme. However, all the gram panchayats give support to the initiatives of SSA and district panchayat to develop physical facilities in the schools. Seventy per cent (70%) of the gram panchayats have made innovations in the school infrastructure for quality education to the students. The important initiatives in this regard include establishing smart classrooms, providing computers in all the class rooms, shelves for all the classrooms for keeping students' learning products, construction of school kitchen, maintaining school vegetable gardens, renovation of toilets/classrooms by putting tiles, construction of children's park in schools, and renovation of play grounds. One of the gram panchayat even constructed a swimming pool in one of its school.

However, some of the gram panchayat personnel think that after giving budgetary share to the SSA, the gram panchayat need not spend more money for educational purposes. Headmasters and the teachers on the other hand pointed out that the fund provided by SSA for infrastructure development works in the schools is not sufficient. Therefore the schools have to depend up on the additional funds provided by the gram panchayats and or the fund generated with the help of PTA, community members, local clubs, cooperative banks, and other non-governmental agencies. The schools also harness financial support from the local area development funds of the MLAs and MPs with the help of the *gram panchayats*.

2. School atmosphere

The gram panchayats make efforts to maintain conducive learning environment in the schools. About 80% of the panchayats monitor school discipline with the help of PTA and 75% of them undertake different projects for enhancing learning environment in the schools. The interventions of the gram panchayats to improve school atmosphere include open air classrooms, School bio-diversity projects, green brigades for maintaining school premises neat and clean, children's learning centers, activity centres, TLM Gallery and exhibition of students' learning products and creative works on the classroom walls, display boards, big picture board. Maintaining of a school vegetable garden and cultivation of paddy, tapioca, and banana plantation in the school campus by the students under the guidance of PTA also provide rich learning experience to the children. Other academic activities to promote wholesome learning includes reading festivals, sky watch, literary fest, science congress, seminars, and school parliament, and cultural/sports festival for the Children With Special Needs.

3. Controlling student drop out

Drop out is not a big menace in the gram panchayats selected for the study. Generally, special efforts are not required to bring the children to the school, as the parents are well aware of importance of educating their children. However, the alarming decline in the enrolment of children in government schools due to parents' desire for educating their children in private English medium schools is a concern for all the gram panchayats. The study reveals that only 65% of the gram panchayats have made efforts to control student dropout in the schools and the remaining 35% gram panchayats stated that drop out of the children did not exist in their schools. Apart from conducting regular meetings of the VEC, school PTA and class PTA to discuss the problem and adopt appropriate measures the gram panchayats develop parental awareness about the problem through discussion in the gram sabha. The other notable initiatives include house visit and counselling to the children; free distribution of support materials including school uniforms, bicycles, and teaching learning materials to the students; providing breakfast, milk and eggs as part of nutritional/midday meal programme; and learning enhancement programmes for students who have difficulties in studies. The steps taken by these gram panchayats to address the problem of drop out can be emulated by any local self-government.

4. Academic interventions

The outstanding academic interventions reported from the gram panchayats include learning enhancement programmes, English language acquisition, neighbourhood learning centres, and community living camps.

Learning enhancement programmes for the children who lag behind in studies due to various reasons are named differently by the gram panchayats: viz. *Samata*' (equality), *Vidhyadeepam* (light of knowledge), Talent school. As part of these programmes special teaching-learning sessions are conducted every day at the end of the school period or during free periods or weekly or on holidays. The students for the learning enhancement programme are identified based on their performance in the regular classroom learning. In some of the panchayats teachers conduct learning enhancement classes during a specified time based on the modules specially prepared for this programme at the BRC level. Some other gram panchayats run the learning enhancement programmes with the help of retired teachers and government officials as well as the newly trained teachers available in the locality. A few of the gram panchayats provide refreshment to the children attending the learning enhancement programme by allocating special funds in the gram panchayat budget.

A few of the local self-governments implement English language acquisition programmes in their schools. For instance, Palakkad District Panchayat implemented an innovative programme named the Rapid English Acquisition Programme (REAP) in primary classes of all the government schools in the district. As part of this programme the district panchayat prepared modules for improving English language learning among the children. Teachers trained

in transacting the modules conducted classes of one hour after the school timing for the children identified for the programme. After implementing for two years, the programme was modified and renamed as Rapid Acquisition Course in English (RACE). The RACE, aimed at improving the English language skills of the students, is implemented in all the grades at elementary level except Class I. All the English language teachers in the district have adopted the methods and activities of RACE, which makes learning of English simple and interesting to the students. The Thillankery Gram Panchayat in Kannur district implemented a similar programme named 'Acquisition of Competence in English' (ACE). SSA provides academic support to all such initiatives of the gram panchayats including development of modules and training of teachers at the BRC level.

These programmes are unique in their approach, pedagogy, materials and evaluation system. Based on the Chomskian assumptions that the human child is biologically endowed with language and that language acquisition is the unfolding of this innate system, these innovative programmes have brought about a shift from the conventional skill-based approach to knowledge-based approach to language teaching. The focus of the programmes were on helping the learners learn language rather than learning about language. As against the conventional way of teaching and learning fragments of language (such as sounds, letters, words, sentences and so on) the programmes provide holistic experience of language to the learners. Instead of repeating the contents of the textbook and reproducing what they have learnt by-heart, these programmes lead the learners through a variety of processes that are enjoyable to them by virtue of which they construct various linguistic discourses on their own.

The neighbourhood learning centres popularly called 'Patanaveedu' is implemented by SSA with the objectives to develop self-confidence and interest in studies among the children who are marginalised in the classroom due to reasons that are not theirs; provide adequate learning environment and facilities for the children who are deprived of these at their home; enable parents to effectively mediate in the studies of their children; and to organise sports, artistic and cultural activities for enhancing the happiness of the children. The neighbourhood learning centres are conducted in community halls, village libraries, child care centres, primary health centres, literacy centres, empty government buildings, buildings of local self-government, or cultural centres. The children from nearby houses gather in the centres at a specified time, normally in the evening, and are engaged in various learning activities by instructors/educational volunteers who have studied at least up to senior secondary level. The students attending the centres are provided with teaching learning materials and refreshment. The instructors are paid a nominal amount per month.

The responsibilities of the gram panchayats for ensuring effective functioning of the neighbourhood learning centres include (1) Identification of the neighbourhood learning centres,

(2) Appointment of the educational volunteers, (3) Ensuring the basic facilities at the centres, and (4) Monitoring of their functioning. The SSA provides funds for organisation of one or two neighbourhood learning centres in a gram panchayat. However, the gram panchayats organise many such leaning centres by allocating funds in their annual budgets. For instance Elappully Gram Panchayat in Palakkad district organised five neighbourhood learning centres in the academic year 2009-2010.

Community living camp, named 'Sahavasa camp', is an innovative programme initiated by SSA to promote children's' creative abilities in various areas. The gram panchayats in collaboration with BRC organise community living residential camps for the students every year. The camps are organised for two or three days in selected schools in the respective gram panchayats. The children stay in the camps day and night and participate in various learning activities, which include creative writing, workshops on drama and folk arts, sky watch, nature watch, bio-diversity programmes, and personality development sessions. The activities in the camp are conducted based on the modules prepared by the teachers under the supervision of the experts in various areas.

SSA provides funds for one or two camps for a few numbers of students as part of its innovative schemes like Girls Education, SC/ST Education, Minority Education and Computer Education. But the gram panchayats organise many camps with more number of students. As the fund provided by the SSA is inadequate, the gram panchayats mobilise additional funds from the community and voluntary organisations.

Concerns and Reflections

A number of factors influence the contributions of local self-governments in providing quality education. First of all assumptions and beliefs about education held by the parents, teachers and gram panchayat functionaries and their understanding about aims, objectives and ways to ensure quality of elementary education influenced the educational decisions of the panchayats to a great extent. Their suggestions put through various platforms like *gram sabha*, PTA, VEC, education standing committee of the panchayat etc. are pivotal in making decisions about educational interventions in the schools. Secondly, their perception about the educational role and responsibilities of the gram panchayat also influence the decisions about the programmes and activities implemented in the schools. The three groups of stakeholders emphasised the leadership role of the gram panchayat in school education. The panchayat has to play this role in every aspect of school administration, namely infrastructure development, appointment of teachers, enrolment of students, preparation of academic calendars, planning and implementation of need based programmes, monitoring of school activities, allocate/mobilise resources for educational programmes, creating physical conditions and learning environment, training of teachers, provide educational support to the children, develop/provide teaching

learning materials, organise health education programmes for the students, and collaborate with other agencies of education.

Thirdly, the ability and willingness of the gram panchayat to make systemic changes and interventions in the schools based on their roles and functions are very significant in ensuring quality of elementary education. The study shows that while most of the gram panchayats are willing to take up programmes for the schools, there are some panchayats that do not have a vision for the schools under their jurisdiction, particularly for the government schools. Their concerns in school education are limited to allocation panchayat share of funds to the SSA. This is reflected in the views of the headmaster of a government primary school in Palakkad district, who lamented that "the panchayat personnel are interested only in the prosperity of unaided or aided schools… our school is of no importance to them….They think that after the SSA share is given the panchayat does not have anything to do with the school education". The standing committee (development) chairman and some of the members of the gram panchayat concerned emphatically stated that "as per DPC guidelines, after allocation of plan fund nothing could be given to the schools…..The panchayat should not spend money for the educational programmes for which the state government also spends…… It is not possible for the panchayat to take up academic programmes for the schools". Therefore, it becomes clear that the potential of the gram panchayats does not suffice to make interventions in the schools; rather their willingness is much more important.

The fourth aspect is the relationship and coordination of the gram panchayat with the schools and different agencies like SSA, department of education and district panchayat. The gram panchayat has vital responsibility in ensuring the coordination among these agencies and channelise their educational supports to the schools. All these depends upon, as teachers in a focus group discussion pointed out, the relationship among these educational agencies, and it should be reflected in the programme planning and implementation processes which warrants participation of the stakeholders in the decision making process.

The fifth point in consideration is participation of parents, teachers and community in decision making. The gram panchayats know that the goals of elementary education cannot be achieved without ensuring community participation in the decisions about the schools. The composition of the Panchayat Education Committee is the reflection of this concern. The PEC members include the gram panchayat president, chairperson of education standing committee, headmasters of all the government and aided schools, representatives of PTA, teachers, educational experts, an SSA functionary, educational volunteers etc. Every PEC has an implementing officer, which is normally the headmaster of a government school. The panchayats strive to involve all the stake holders at different levels of planning, implementation, monitoring and evaluation of the programmes and activities of the schools.

Sixthly, the process of planning and implementation of programmes and activities invites special attention. The gram panchayats follow a 'bottom top' approach in the formulation of educational projects, which focus on improving the physical resources, addressing the diverse needs of students and ensuring support of the community at large. The PEC functions as a platform for bringing different stakeholders together in this process. Generally the process starts from the schools by identifying their requirement through discussions in School Resource Groups and PTA meetings. The headmasters of the schools present their proposals in the PEC for its consideration. The projects are finalised by the PEC after thorough discussions on proposals of schools and send for the consideration of the panchayat standing committee on education, and the District Panchayat Committee. The gram panchayat can make changes in the proposal finalised by the PEC if it is necessary. The projects are implemented only with the approval of the DPC.

Some of the gram panchayats adopt a different approach for programme planning. For instance, Thillankery Gram Panchayat in Kannur district followed a micro planning process for its educational projects. The panchayat prepared a unique five year project called 'Social Education Yagnam 2007-2012' for its educational development. The interventions of the panchayat to promote quality of elementary education were part of this overarching project. At first workshops were organised at the panchayat level to identify the educational problems and to suggest measures to address them. PEC members, teachers PTA representatives, educationists, community members, and NGOs participated in the workshops. The workshops were followed by seminars on 'Problems in Education and their Solutions' conducted at ward level by involving people from all sections the society. Based on the seminars and workshops a survey was conducted by employing educational volunteers to find out the causes of the educational problems in the gram panchayat. The findings of the education survey were discussed in the special meetings of the Gram Sabha and teachers' conclave. Based on the suggestions emerged in these workshops, seminars, gram sabhas, and teachers meetings the panchayat formulated its programmes and activities.

Mobilisation of resources is yet another concern. Allocation of funds for education in addition to the mandatory contribution to the SSA annual plan is an uphill task for the gram panchayats having limited sources of revenue. Even then most of panchayats provide additional funds for educational activities of the schools. The sources of the resources include panchayats' own fund, voluntary contributions in cash/kind, contributions from other LSGs, and maintenance fund. The additional funds are allocated for school infrastructure, development of libraries, providing educational support materials to the children, purchase of sports material, TLM as well as for the academic programmes like neighbourhood learning centres, living together camps, field trips etc. Many of the gram panchayats strive to

get sponsors for various educational activities and support materials like school uniforms, bags, note books etc. The sponsors generally include local clubs, co-operative societies, banks, NGOs etc. As the fund provided by SSA is not sufficient even for infrastructure developmental works the schools have to heavily depend on the gram panchayat and other agencies to raise additional resources for implementing their quality improvement initiatives.

Finally, monitoring and evaluation of educational programmes is found to be not effective. The gram panchayats constitute their own committees for monitoring their programmes and activities in the schools, which generally comprise panchayat president, standing committee chairpersons, implementing officer, BRC trainer, educational experts, headmasters, ward members, and PTA representatives. The major responsibility of evaluation and monitoring rest with the PEC, which conducts meetings every months to review the programmes and activities implemented in the schools and also prepare plans for the coming month. The headmasters present reports of the activities, achievements, as well as the requirements for implementing the programmes in their respective schools. The PEC takes decision of on various projects and allocates funds for implementation. At the school level the School Resource Group comprising HM, teachers and PTA office bearers is responsible for planning, implementation and monitoring of the school activities. The SRG meets every week and review the progress of all the programmes and activities and make plan for next week' activities.

The gram panchayats monitor only those programmes and activities carried out under their initiatives/collaboration and involve financial support from the panchayats. The academic monitoring of the school activities does not figure in the monitoring system of most of the gram panchayats. This task is left to the SSA and the committees constituted by the department of education. The panchayat level monitoring committees rarely visits the schools. There is resistance from the teachers to the classroom monitoring by these committees. Teachers do not allow anybody, even BRC/CRC coordinators to observe their classes. All the teachers associations in the state are united in their opposition to classroom observation by an external agency. Therefore the gram panchayat generally avoids any kind of academic monitoring of school activities. However, some of the teachers opined that, as PEC involves representative of all the stakeholders including BRC, school, parents, educational experts and community, it can function as a better mechanism for evaluation and monitoring of all programmes and activities in the schools, including the classroom monitoring.

Conclusion

The evidences emerging from the field data show that involvement of local administration is critical in enhancing the quality of elementary education in India. However, it is required to develop proper awareness of the local self-government functionaries, particularly about their duties under the RTE Act, and enable them to perform their educational roles effectively. They should have a thorough

understanding about the indicators of quality elementary education as well as the ground realities in the schools. Building the capacity of gram panchayat functionaries in formulation, planning, implement-ation and evaluation of local specific programmes is a critical concern. It is required for the local self-governments at all levels to take up need based academic programmes to address the educational needs of the local community and schools. The educational needs of the students and training needs of the teachers should be identified and appropriate programmes are formulated, planned and implemented by coordinating with other agencies and experts in the field. Instead of taking up discrete programmes and activities the local administrations should plan long term projects to address the local educational needs and problems by evolving strategies based on micro- planning approaches.

Further, in order to sustain the participation of the community in the management of elementary schools, the functioning of VECs/SMCs needs to be strengthened by inducting able, interested and active members; build the capacity of VECs/SMCs to perform their role and functions effectively, and to assess their performance annually. There should be a systemic change in the mechanism adopted for planning, implementation, monitoring and evaluation of programmes and activities of various educational agencies like SSA, Department of Education, District and Gram Panchayats. It would be better to have a well-defined mechanism with representatives of all these agencies to perform these functions. As the process and patterns of community participation across the local self-governments in the state differs there is a need to document this diverse experience and share with the stakeholders and develops policy perspectives and insights for formulation and implementation of educational programme at the state, district and local levels.

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Does the Locality and Gender of Higher Secondary Students Influence their Life Skills Preferences

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Abstract

Implicit in the right kind of education is the cultivation of a complete human being with capabilities enhanced in all dimensions: economical, social, cultural, political and ethical. But, unfortunately the learning experiences provided in the formal classroom system are so much devoid of real life situation that the so-called 'educated' is rarely competent enough to resolve the intricate real life issues courageously. It requires something more to come out of any crisis in the entire gamut of one's personal, professional and social life and that vital missing link in the education process is the acquisition of "Life Skills" — capabilities which prepare the learner to cope with life's diverse challenges. As life skills based education can address a wide range of issues relevant to adolescents, the development of life skills should be the primary concern of secondary education. Life skills are innumerable, so life skills preferences of higher secondary students, if correctly identified would be helpful to get the preliminary idea of those life skills that should be integrated into the existing curriculum of secondary education. Students at higher secondary level are mature enough to express their fair and frank preferences which may prove valuable in the pursuit of quality education. The present paper explores the higher secondary students' life skills preferences with respect to their locality and gender difference. A descriptive cross sectional survey of a sample of four hundred students of Class XI from higher secondary schools of Rajasthan was done with the help of two self-made questionnaires namely situational test and preference sheet. The findings were that life skills preferences of higher

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secondary students are influenced largely by their locality but in case of gender, urban boys and urban girls do not differ in their life skills preferences as the rural boys and rural girls do.

Introduction

Education in the true sense is the cultivation of an integrated individual with an integrated comprehension of life that enables one to meet ever-increasing complexities of life. The aim of any worthwhile education is to prepare the child for constructive living, one who seeks maximum satisfaction within the bounds of social norms while making due contribution towards the welfare of the society. So, education must develop such abilities and capacities in the child, that as one grows older, one is able to confront the intricate real life issues courageously and solve them successfully.

Youth today faces different challenges in life in the changed world brought about by the decline of the rural agricultural economy, migration, urbanisation, mass communication, commercialisation, market expansion, globalisation, etc. Growing pace of the modern life poses enormous demands and challenges on youth. The situation facing young people in today's world clearly shows that acquisition of knowledge through academic education is not sufficient to prepare adolescents to cope with the intricate real life issues. The challenges one faces are many and require more than even the best numeracy and literacy skills. So, apart from academic knowledge, education must train a child to have set of skills to face the challenges of day to day life, which in general are termed as "Life Skills".

In the past few years in particular, following the opening up of the Indian economy and technological sea-change, there's been growing awareness among school and college managements that examination success does not necessarily translate into success in personal and professional life. It requires something more than mugging up textbooks to be a successful doctor, engineer, architect, teacher, manager or entrepreneur. A new impetus to education is therefore the need for a new family of skills, the psychosocial abilities or life skills, to bridge the gap between the practical know how (basic functioning) and capabilities (Refined functioning). Education that accommodates both the dimensions of practical and psychosocial skill is sufficient to achieve an ultimate goal of education i.e. to develop a 'Complete Person/Human' with capabilities enhanced in all dimensions: economical, social, cultural, political and ethical. Therefore, many countries are now considering the development of life skills-based education in response to the need to reform traditional education systems which appear to be out of step with the realities and the challenges of modern social and economic life.

National and International Recommendations on Life Skills

The need to link life skills with education has been highlighted directly and indirectly in a number of National

and International recommendations as described below:

- the United Nations Convention on the Rights of the Child, New York, 1989, linked life skills to education by stating that education should be directed towards the development of the child's fullest potential. The 1990 Jomtien Declaration on 'Education for All' took this vision further and included life skills among essential learning tools for survival, capacity development and quality of life.
- as per the report of Inter-Agency Meeting on Life Skills Education, WHO, Geneva, April 1998: "Life skills education is designed to facilitate the practice and reinforcement of psychosocial skills in a culturally and developmentally appropriate way; it contributes to the promotion of personal and social development, the prevention of health and social problems, and the protection of human rights. There is a need for inter-agency collaboration to accelerate programming, monitoring and evaluation for life skills education in and out of schools. In particular, it suggested collaboration in the design of life skills curricula in schools; the development of tools for the monitoring and evaluation of life skills education initiatives; the development of guidelines and training materials to support life skills initiatives for out-of-school children and adolescents; and an e-mail network to facilitate exchange of information between agencies".
- During the World Education Forum, Dakar, Senegal, April 2000, the global education community specifically included the acquisition of "life skills" in two of its six goals and stressed on the need for not only psychomotor or practical skills, but also those psychosocial abilities – life skills – that will enable us to learn and use knowledge, to develop reasoning and analytical strengths, to manage emotions and to live with and relate to others.
- National Curriculum Framework for School Education (NCFSE), 2000 threw light on the need of internalising life skills in present Educational system. As per National Curriculum Framework NCF 2005, the central reason for including life skills education in the school curriculum is that an interventional: preventive and developmental approach to equipping school children (learners) in the senior phase with coping skills will help them to deal effectively with predictable developmental tasks and an ever changing world.
- Report of the Inter-Agency Working Group on Life Skills, UNESCO, Paris, 2004, has closely linked Life Skills Education to sustainable human development and proposed to emphasis on assisting countries in setting up measurable life skills education with an objective of improving the general quality of education as well as enabling the learner to cope with new challenges. Assessment of life skills-based education at the local and individual levels must be based on observed changes in

a learner's acquisition and use of knowledge, the expression of values and attitudes, development of skills, and interactions with the social and physical environment.

- The Central Board of Secondary Education (C.B.S.E.) has already introduced Life skill education as a part of the curriculum in all its affiliated schools and suggested that the pedagogy to be adopted for teaching life skill education has to be interactive, experimental and facilitative. The spirit of the above subject should be extended beyond the classroom walls and scope should be provided for the same in the co-curricular and activities. The subject has to be evaluated in context and as a part of the continuous and comprehensive evaluation. Life skills curriculum can facilitate in imbibing right attitudes for the holistic growth of the learners".*

Rationale of the Study: As life skills based education can address a wide range of issues relevant to adolescents, it has been widely recognised that the development of life skills in adolescents is of utmost importance. The first and foremost step towards the promotion of life skills in secondary education is to sensitise every student towards life skills which the present study is attempting to do. Students are ultimate stakeholders, direct users and consumers of the education system hence considering their perceptions, preferences and opinions may go a long way in improving the quality of education. In school education, the students at the higher secondary level become a little mature and can express their fair and frank preferences. Life skills preferences of higher secondary student if correctly identified would be helpful to get the preliminary idea of those life skills that should be integrated with top priority into the existing curriculum of secondary education. The diversity of cultures and heterogeneity, such as rural and urban, socially disadvantaged gender differences are crucial pointers towards the fact that each student has different problems of his/her own and needs different skills to cope up with them, so is their preference for life skills. It would also point out the least preferred life skills needed to be strengthened in order to make every student a wholesome personality irrespective of their gender and locality. This in turn would lead to the preparation of better future citizens contributing member of the family, the society and world at large. So, the researcher decided to undertake the present study in order to explore the preferential choices of higher secondary students for different life skills.

Identification of Life Skills: There is no definitive list of life skills. Given the diversity of contexts, backgrounds and cultures, life skills can be innumerable, some specific to certain risk situation and others of a generic nature. Although the exact nature and description of life skills are likely to differ across social and cultural context, core life skills identified by various national and international organisations like UNICEF, UNESCO, WHO , Pan American Health

* C.B.S.E., Circular No. : 11/04, No. D(A)/PA/LS/04

Organization (Sep. 2001) etc. served as an important guide to the researcher for reflecting on what skills should be considered to be core life skills. The following 9 life skills which were found common in all the above mentioned sources and applicable across a wide range of contexts in daily life and risk situations were selected for the present study:

(1) Problem Solving Skills
(2) Critical Thinking Skills
(3) Self-awareness building Skills
(4) Stress management skills
(5) Interpersonal Skills
(6) Assertive Skills
(7) Decision Making Skills
(8) Communication Skills
(9) Empathy skills

Objectives of the Study: The study envisaged the following objectives:

- to find whether the locality of higher secondary students influence their life skills preferences.
- to find whether the gender of higher secondary students influence their life skills preferences.

Hypothesis: In order to realise the above objectives of the study, following null hypotheses were framed.

- There is no significant difference between the life skills preferences of urban boys and rural boys at the higher secondary level.
- There is no significant difference between the life skills preferences of urban girls and rural girls at the higher secondary level.
- There is no significant difference between the life skills preferences of urban boys and urban girls at the higher secondary level.
- There is no significant difference between the life skills preferences of rural boys and rural girls at the higher secondary level.

Population and Sample

Population in the study included all higher secondary school students of Rajasthan state while the sample consisted of four hundred students studying in standard XI in the age group 16-to-17 years from selected schools of six major districts namely Jaipur, Sikar, Jodhpur, Jaisalmer, Bikaner and Udaipur representing the whole state of Rajasthan. Systematic random sample selection procedure used by researcher is shown in the Figure 1 and the exact numbers of the cases in the final sample is given in the Table 1.

Table 1
Distribution of Sample

Sl. No.	*Type of School*	*Boys*	*Girls*	*No. of Students*
1	Urban	103	102	205
2	Rural	100	95	195
	Total	203	197	N=400

Variables: Life skills preference is a dependent variable while locality and gender of students are independent variables in the study.

Research Instruments: The following tools were used for collection of data.

(1) Situational Test for Life Skills Preferences (Self made)

The first tool for data collection was a situation based questionnaire, comprising of items with closed-responses prepared in English and Hindi as well. This questionnaire was prepared to seek the preferential choice of respondents

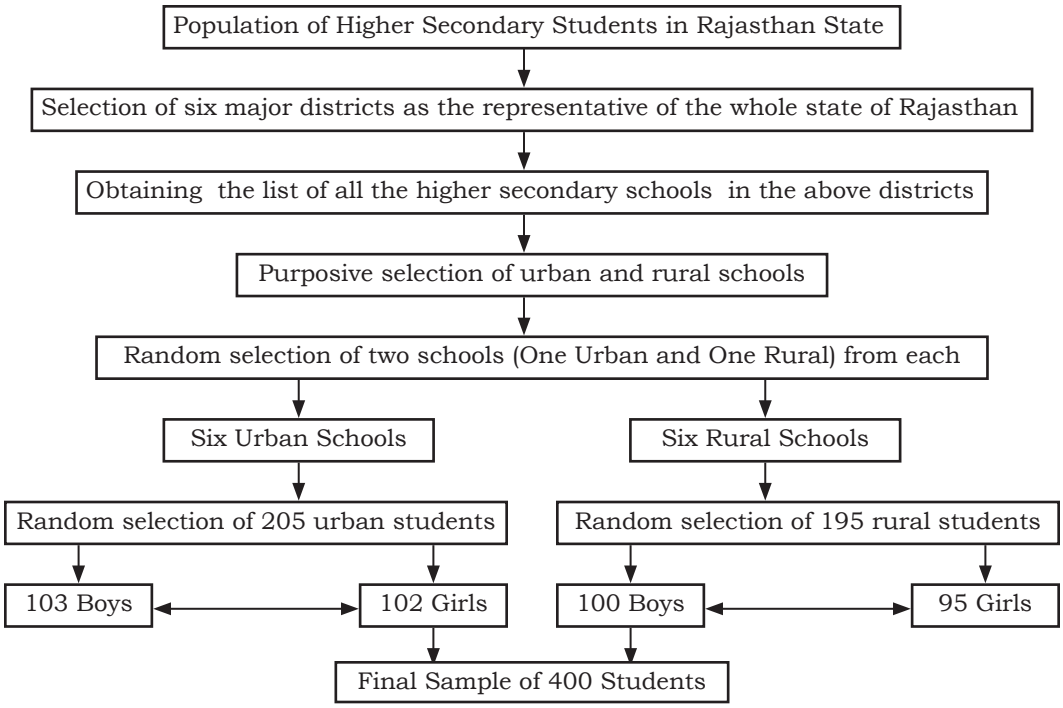

Figure 1 : *Systematic Randomisation Procedure of Sample Selection*

for the nine kinds of life skills been included in the study. It comprised of thirty-six hypothetical common real life situations or problems faced by adolescents in day to day life. There were four items mentioned under each life skill and under each item there were four options. All the four options were basically a possible solution to tackle that problematic situation. Out of four options, only one corresponded to the solution based on life skill. Respondents were supposed to read each situation carefully and tick any one of the option which he/she finds most preferable solution to deal with the concerned situation. The option that corresponded to the life skill based solution to the problem was considered as a positive response and score value of each positive response was one. The percentage of preference for each life skill was calculated by counting all the items with positive responses and dividing this total by the number of items the respondent answered for that domain multiplied by 100. Respondent's preference score from 100% to 75% was considered as respondent showing high preference for that life skill. Respondent's preference score as 50% or less was not considered as preferable life skill. Thus, in this way answers in the filled in questionnaire were scored and scores were transferred to tally sheets, frequency of preferences for each life skill was calculated and tabulated for the further statistical operations (Appendix I).

(2) Life Skills Preference sheet (Self made)

This tool was constructed by the researcher to know the preferential choice of the respondents for those life skills that they considered most valuable in his/her day to day life in a direct manner and prepared in English and Hindi. In a way, this preference sheet proved helpful in testing the reliability and validity of the situational test. In this tool, list of all the 9 life skills was given. Against each life skill there were three alternatives given in the form of (1) (2) and (3) which corresponded to the responses (Preferred), (Neutral) and (Not preferred) respectively. Respondents were supposed to tick any one to show their preference or non preference for that life skill. Thus, preferences shown in the preference sheet were transferred to tally sheets. Frequency of preferences for each life skill was calculated and tabulated for the further statistical operations (Appendix II).

Analysis of Data

Statistical techniques employed for the data analysis were Frequency, Percentage, and Chi-Square test of independence to test the null hypotheses. Equivalent – form reliability analysis of a situational test by preference sheet was also done where two different versions of the instruments were created and applied on the same subjects to measure the same thing during the same time period. The scores on the two instruments were correlated to calculate the consistency between situational test and preference sheet test scores.

(a) Analysis and Interpretation of data from Situational test

Locality based analysis - Figure 2 exhibits that most preferred life skill by urban boys was problem solving skill (68%) while interpersonal relationship skill (65%) was the most preferred life skills by rural boys. The least preferred life skill by urban boys was empathy (27%) while for rural boys, critical thinking skill (20%) was the least preferred skill. Table 2 shows chi-square values for the statistical significance of the differences in life skills preferences of urban boys VS rural boys is 24 which is much greater than table value of x2 for 8 degrees of freedom at 5% level of significance i.e. 15.51, thus the null hypothesis no.1 was rejected. Similarly, In case of urban girls Vs rural girls, the most preferred life skill by urban girls was stress management skill (68%) while interpersonal relationship skill (79%) was the most preferred life skills by rural girls. The least preferred life skill by urban girls was self awareness skill and empathy skill (37%) while for rural girls; critical thinking skill (20%) was the least preferred skill. Table 2 shows chi square value for urban girls VS rural girls is 34.3 which is much greater than table value of x2 i.e. 15.51. Thus, the null hypothesis no.1 and 2 were rejected.

Gender based analysis - Figure 2 exhibits that urban girls have shown little higher preference for interpersonal, communication and stress management skills than urban boys while urban boys were little higher in their preference for assertive, critical, problem solving and decision making skills. Table 2 shows

Table 2

Contingency table showing life skills preferences based on Situational Test

S. No	Life Skills									*Locality based Analysis*						*Gender based Analysis*					
										Urban Boys Vs Rural Boys			*Urban Girls Vs Rural Girls*			*Urban Boys Vs Urban Girls*			*Rural Boys Vs Rural Girls*		
		Observed Frequency				*%age of Frequency*				*Expected Freq. & Total chi-square*			*Expected Freq. & Total chi-square*			*Expected Freq. & Total chi-square*			*Expected Freq. & Total chi-square*		
		OUB	*OUG*	*ORB*	*ORG*	*%UB*	*%UG*	*%RB*	*%RG*	*EUrb*	*ERur*	*Σx2*	*EUrb*	*ERur*	*Σx2*	*EBoy*	*EGirl*	*Σx2*	*EBoy*	*EGirl*	*Σx2*
1	Stress Management Skill	65	69	33	41	63	68	33	43	53	45	6.33	58	52	4.67	68	66	0.23	37	37	0.68
2	Self Awareness Skill	40	38	38	28	39	37	38	29	42	36	0.18	35	31	0.70	39	39	0.01	33	33	1.77
3	Communication Skill	50	60	43	65	49	59	43	68	50	43	0.00	66	59	0.99	56	54	1.17	53	55	3.96
4	Empathy Skill	28	38	48	66	27	37	48	69	41	35	8.63	55	49	10.5	33	33	1.77	56	58	2.42
5	Interpersonal relationship Skill	52	62	65	75	50	61	65	79	63	54	3.99	72	65	2.83	58	56	1.13	69	71	0.49
6	Assertiveness Skill	53	45	33	23	51	44	33	24	46	40	2.20	36	32	5.15	50	48	0.47	28	28	2.04
7	Problem Solving Skill	70	50	60	59	68	49	60	62	70	60	0.00	57	52	1.88	61	59	2.87	59	60	0.05
8	Critical Thinking Skill	46	41	27	19	45	40	27	20	39	34	2.57	31	29	6.08	44	43	0.18	23	23	1.60
9	Decision Making Skill	59	49	53	34	57	48	53	36	60	52	0.04	44	39	1.45	55	53	0.70	43	44	4.63
		463	452	400	410							24.0			34.3			8.5			17.6

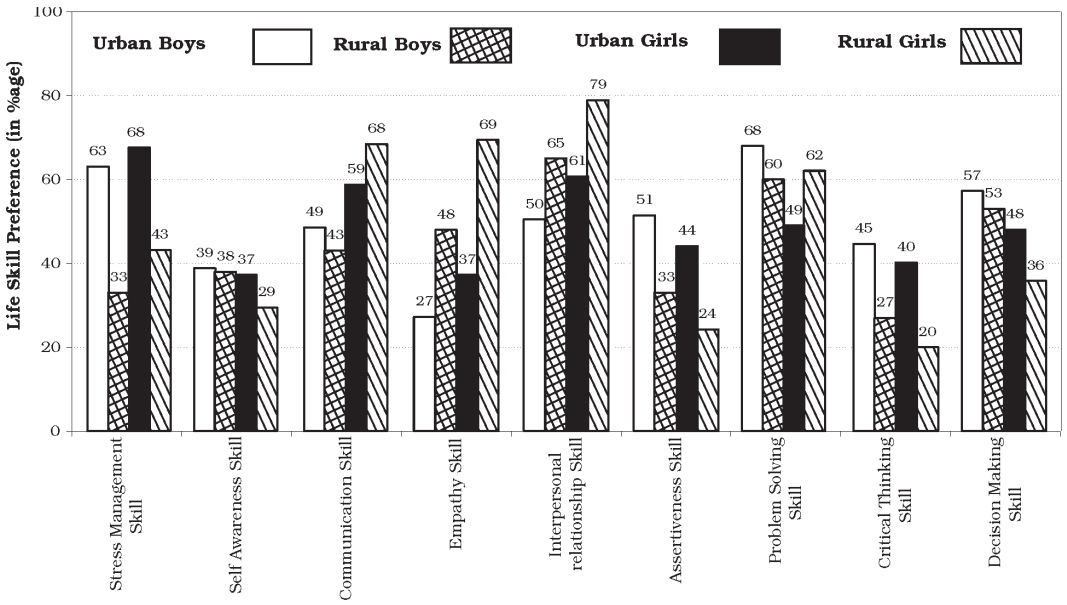

Figure 2 : *Life skills Preferences of Urban and Rural Students based on situational test*

chi-square values for the statistical significance of the differences in life skills preferences of urban boys Vs urban girls is 8.5, which is much smaller than table value of x2 for 8 degrees of freedom at 5% level of significance i.e. 15.51 thus the null hypothesis no.3 was accepted. In case of rural boys Vs rural girls, both have shown highest preference for interpersonal skill (65% and 79% respectively) while least preference for critical thinking skill(27% and 20% respectively). In case of rural boys Vs rural girls, the chi-square value was calculated to be 17.6 which are much greater than the table value of 15.51. Thus, the null hypothesis no. 4 was rejected. Girls from both urban and rural locality have shown high preference for interpersonal and communication skill in comparison to boys.

(b) Analysis and interpretation of data from preference sheet

Locality based analysis - Figure 3 exhibits that most preferred life skill by urban boys was problem solving skill (71%) while interpersonal relationship skill (68%) was the most preferred life skills by rural boys. The least preferred life skill by urban boys was empathy (30%) while for rural boys; critical thinking skill (30%) was the least preferred skill. Table 3 shows chi-square value for the statistical significance of the differences in life skills preferences of urban boys VS rural boys as 23.2 which is much greater than table value of x2 for 8 degrees of freedom at 5% level of significance i.e. 15.51, thus the null hypothesis no.1 was rejected.

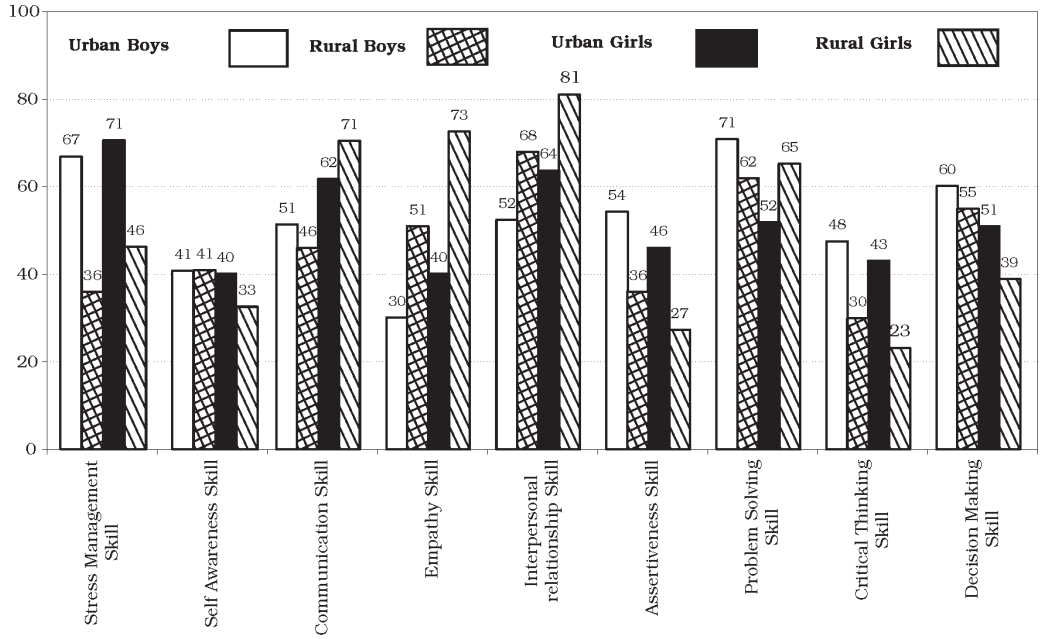

Figure 3 : *Contingency table showing life skills preferences based on Preference Test*

Similarly, In case of urban girls Vs rural girls, the most preferred life skill by urban girls was stress management skill (71%) while interpersonal relationship skill (81%) was the most preferred life skills by rural girls. The least preferred life skill by urban girls was self awareness skill and empathy skill (40%) while for rural girls; critical thinking skill (23%) was the least preferred skill. Table No.-03 shows chi square value for urban girls Vs rural girls is 31.1 which is much greater than table value of x2 i.e. 15.51. Thus, the null hypothesis no.1 and 2 were rejected.

Gender based analysis – Figure 3 exhibits that urban girls have shown little higher preference for interpersonal, communication and stress management skills than urban boys while urban boys were higher in their preference for assertive, critical, problem solving and decision making skills. Table 3 shows chi-square values for the statistical significance of the differences in life skills preferences of urban boys VS urban girls is 8.3 which is much smaller than table value of x2 for 8 degrees of freedom at 5% level of significance i.e. 15.51 thus the null hypothesis no.3 was accepted. In case of rural boys Vs rural girls, both have shown highest preference for interpersonal skill while least preference for critical thinking skill. The chi-square value was calculated to be 15.6 which were greater than the table value of 15.51. Thus, the null hypothesis no. 4 was rejected.

Table 3

Contingency table showing life skills preferences based on Preference Test

S. No	*Life Skills*									*Locality based Analysis*						*Gender based Analysis*					
										Urban Boys Vs Rural Boys			*Urban Girls Vs Rural Girls*			*Urban Boys Vs Urban Girls*			*Rural Boys Vs Rural Girls*		
		Observed Frequency				*%age of Frequency*				*Expected Freq. & Total chi-square*			*Expected Freq. & Total chi-square*			*Expected Freq. & Total chi-square*			*Expected Freq. & Total chi-square*		
		OUB	*OUG*	*ORB*	*ORG*	*%UB*	*%UG*	*%RB*	*%RG*	*EUrb*	*ERur*	*Σx2*	*EUrb*	*ERur*	*Σx2*	*EBoy*	*EGirl*	*Σx2*	*EBoy*	*EGirl*	*Σx2*
1	Stress Management Skill	69	72	36	44	67	71	36	46	56	49	6.30	61	55	4.39	71	70	0.15	40	40	0.62
2	Self Awareness Skill	42	41	41	31	41	40	41	33	44	39	0.28	38	34	0.61	42	41	0.00	36	36	1.63
3	Communication Skill	53	63	46	67	51	62	46	71	53	46	0.00	68	62	0.79	59	57	1.10	56	57	3.43
4	Empathy Skill	31	41	51	69	30	40	51	73	44	38	8.12	58	52	10.0	36	36	1.63	59	61	2.30
5	Interpersonal relationship Skill	54	65	68	77	52	64	68	81	65	57	4.19	74	68	2.46	60	59	1.28	72	73	0.37
6	Assertiveness Skill	56	47	36	26	54	46	36	27	49	43	2.01	38	35	4.23	52	51	0.60	31	31	1.85
7	Problem Solving Skill	73	53	62	62	71	52	62	65	72	63	0.02	60	55	1.81	64	62	2.74	61	63	0.02
8	Critical Thinking Skill	49	44	30	22	48	43	30	23	42	37	2.31	35	31	5.42	47	46	0.17	26	26	1.42
9	Decision Making Skill	62	52	55	37	60	51	55	39	63	54	0.01	47	42	1.32	58	56	0.66	45	47	3.95
		489	478	425	435							23.2			31.1			8.3			15.6

Table 4

S. No.	*Life Skills*	*Correlation coefficient of test scores of urban boys*				*Correlation coefficient of test scores for urban girls*			
		Order of Preference based on questioner no. 1 (R1)	*Order of Preference based on questioner no. 2 (R2)*	*Rank difference D= R1 - R2*	*D2*	*Order of Preference based on questioner no. 1 (R1)*	*Order of Preference based on questioner no. 2 (R2)*	*Rank Difference D= R1 - R2*	*D2*
1	Stress Management Skill	2	2	0	0	1	1	0	0
2	Self Awareness Skill	8	8	0	0	8	8	0	0
3	Communication Skill	6	6	0	0	3	3	0	0
4	Empathy Skill	9	9	0	0	8	8	0	0
5	Interpersonal relationship Skill	5	5	0	0	2	2	0	0
6	Assertiveness Skill	4	4	0	0	6	6	0	0
7	Problem Solving Skill	1	1	0	0	4	4	0	0
8	Critical Thinking Skill	7	7	0	0	7	7	0	0
9	Decision Making Skill	3	3	0	0	5	5	0	0
n=09					∑ D2 =0				∑ D2 =0
Rank correlation coefficient (ρ) =1- [6∑D2 / {n (n2-1)}], ρ Calculated =1.0 for urban boys & ρ Calculated =1.0 for urban girls									

Table 5

S. No.	*Life Skills*	*Correlation coefficient of test scores of rural boys*				*Correlation coefficient of test scores of rural girls*			
		Order of Preference based on questioner no. 1 (R1)	*Order of Preference based on questioner no. 2 (R2)*	*Rank difference D= R1 - R2*	*D2*	*Order of Preference based on questioner no. 1 (R1)*	*Order of Preference based on questioner no. 2 (R2)*	*Rank Difference D= R1 - R2*	*D2*
1	Stress Management Skill	7	7	0	0	5	5	0	0
2	Self Awareness Skill	6	6	0	0	7	7	0	0
3	Communication Skill	5	5	0	0	3	3	0	0
4	Empathy Skill	4	4	0	0	2	2	0	0
5	Interpersonal relationship Skill	1	1	0	0	1	1	0	0

6	Assertiveness Skill	7	7	0	0	8	8	0	0
7	Problem Solving Skill	2	2	0	0	4	4	0	0
8	Critical Thinking Skill	8	8	0	0	9	9	0	0
9	Decision Making Skill	3	3	0	0	6	6	0	0
n=09					∑ D2 =0				∑ D2 =0
Rank correlation coefficient (ρ) =1- [6∑D2 / {n (n2-1)}], ρ Calculated =1.0 for rural boys & ρ Calculated =1.0 for rural girls									

(b) **Reliability Analysis:** Spearman's rank correlation coefficient of the two scores was computed urban boys, urban girls, rural boys and rural girls indicate a substantial positive correlation between the test scores (see tables 4 and 5).

Testing the significance of (ρ) value: As the n is less than 30, distribution of (ρ) is not normal. Therefore, Spearman Rank significance table was used to determine the significance of relationship. When looked up on the Spearman Rank significance table in row for n= 9 and the column for a significance level of 0.05, the critical value of Spearman's rank correlation for combined areas in both tails was found to be =±0.6833 i.e., the upper limit of the acceptance region is 0.6833 and the lower limit of the acceptance region is -0.6833. The calculated (ρ) =1.0 is outside the limits of acceptance region as shown in the fig. no. 4. It was concluded that there is a strong positive correlation in the above two sets of ranked data.

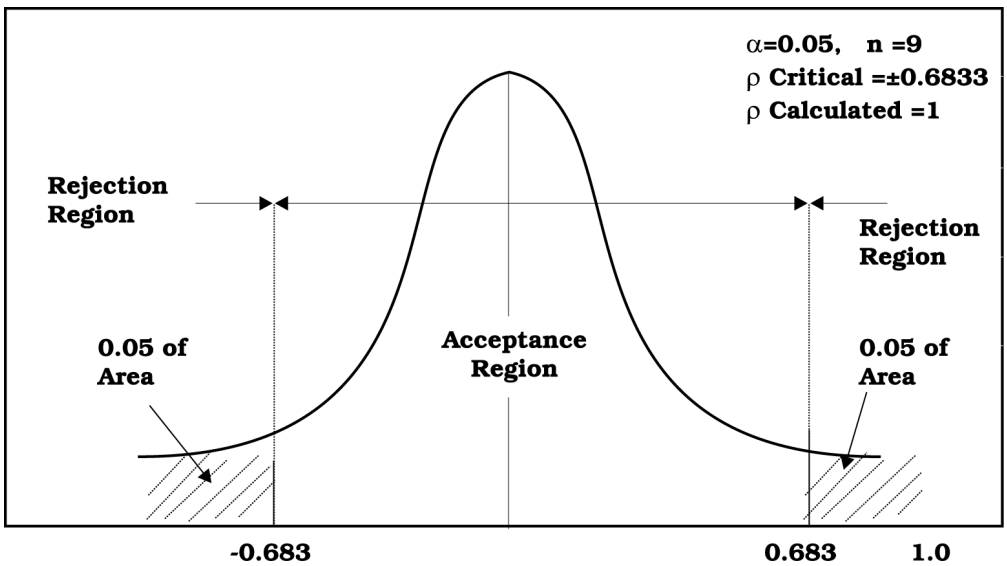

Figure 4 : *Acceptance and Rejection regions of a two- tailed test*

Conclusions Drawn From Situational Test and Preference Sheet

Results of both the questionnaires were similar. Null hypotheses no.1, 2 and 4 tested through situational test and Preference sheet were rejected while null hypotheses no.3 was accepted leading to following conclusions:

- Ho1.was rejected, so it is concluded that there is a significant difference between the life skills preferences of urban boys and rural boys at higher secondary level.
- Ho2.was rejected, so it is concluded that there is a significant difference between the life skills preferences of urban girls and rural girls at higher secondary level.
- Ho3. was accepted, so it is concluded that there is a no significant difference between the life skills preferences of urban boys and urban girls at higher secondary level.
- Ho4. was rejected, so it is concluded that there is a significant difference between the life skills preferences of rural boys and rural girls at higher secondary level.

Results and Discussion

- Preferences shown for interpersonal relationship skills were very high and almost same irrespective of student's locality or gender. These variables seemed to have no important effect on interpersonal skills preferences of the respondents. These results indicate that it is important for adolescents to establish and maintain good interpersonal relationships. This is similar to the findings of (Camilla Hakelind, 2007; Buhrmester, 1990; Brown, 1989; Coleman, 1980; Douvan and Adelson, 1966; Buhrmester and Furman, 1985,; Collins and Laursen 1994). Adolescents develop friendships to meet their intimacy needs and to establish their identity (e.g., mutual empathy love, and security). Thus an important issue for the adolescents, then, would seem to be how to make this interpersonal functioning positive and successful. That may be the reason why all groups of adolescents have preferred this skill.
- Rural students, both boys and girls have shown very less preference for critical thinking skills and assertive skills and rural girls were even much lower in their preference for these skills. Reason may be attributed to their upbringing in the rural environment where they cannot think critically about most of the important issues that affect their lives, and have developed a habit of readily accepting opinions or speculations about nature, people, societies, and nations that have not been adequately tested. Girls reared in the conservative rural society are too meek and submissive to develop into a critical thinker or assertive person. This may also be the reason why rural girls in Rajasthan are lowest in their preference for decision making skills as they are not independent thinkers and consider that it is culturally and traditionally more appropriate to have the parents decide their major life events for them.

- Rural boys and girls have shown comparatively high preference for empathy skills in comparison to urban students. Reason may be attributed to their upbringing in a less stressful and simple rural life. As rural society is collectivistic society based on mutual interdependence, loyalty and cooperation, rural students are more likely to internalise altruistic values and they tend to be more empathic. That may be why they have preferred this skill. While urban areas have high population density, cultural heterogeneity and highly competitive fast modern life. In the fast pace of an urban life, people are left with little time andenergy to spend on and with others. They develop tendencies of being reserved and less empathic.
- Urban students both boys have shown higher preference for stress management skills, assertive skills, communication skills and problem solving skills than rural students. As Baum and Paulus (1987) points out, individuals in urban areas often experience stress because they feel they don't have enough control over their environment due to the high frequency of unwanted interactions with other's assertive skills, communication skills. The social crowding and unsolicited social contact can be such prevalent aspects of individual lives in urban areas, individuals may respond to these pressures by communicating assertively in an effort to set boundaries with others or to get their wants and need met. This may be the reason why urban students may feel they have to be more assertive and communicative as they are members of a highly diverse population, and they are faced with interacting with many people whom they perceive to be very different from them. Same may be the possible reason why urban students have largely preferred problem solving skills as they have to encounter more personal and interpersonal problems .On the contrary, rural areas are more homogeneous, with cultural similarities between individuals. Less stressful and simple rural life has less potential for disagreement and conflict. This means they do not often engage in assertive behavior and are less fort right about how they truly feel. Perhaps this may be why rural students preferred the above skills less as they don't need to use these too often.
- Girls from both rural and urban locality have shown high preference for interpersonal skills and communication skills. These results are in line with many other research findings. One of the most important gender differences in adolescents involves the amount of emphasis placed on interpersonal relationships. Such relationships, especially those that are more intimate, are more salient in the lives of adolescent girls than in those of adolescent boys (Bakan, 1966; Buhrmester and Furman, 1987; Bush and Simmons, 1987; Richards et al., 1990). Females establish this intimacy through

conversation and self-disclosure (McNelles and Connolly, 1999). Raffaelli and Duckett, (1989) found that females devoted substantially more time than did males to conversation. Friends were the conversational companions of girls significantly more than of boys. It has often been suggested that the emphasis of females on close interpersonal ties and verbal communication might have grown out of an effort to compensate for a lack of power, relative to males, in societal, community, and family social structures (Thorne and Henley, 1975).

- Girls of both urban and rural locality have shown less preference for assertive skills than boys. This shows that boys are more assertive than girl. Boys tend to be more assertive because they are considered to be having a strong and thoughtful personality. So our society not only accepts but also supports males to be assertive. A research by Bourke R.(2001) also showed same results, according to which men are more assertive and women are more tender minded and hence there is gender difference in self-assertiveness. Also males are more assertive because of certain patterns of society. On the other hand our society does not give space to women to show their assertiveness. People expect women to behave unassertively. Women may also avoid behaviours that do not fit "the feminine role" and when they do engage in "masculine assertiveness" they are likely to encounter disbelief or even hostility from others.
- Girls preference for stress management skill was little higher than boys as they experience more stress compared to the male students. This might be due to the fact that male students reach maturity later than female students while female students tend to be more emotional and sensitive toward what is happening in their surrounding. These things are also the contributor of more stress in female students. This is similar to the findings of (Azizi, Jaafar, Shahrin dan Yusof, 2006).

Educational Implications

Life skills preferences of higher secondary student identified above would be helpful to get the preliminary idea of those life skills that should be integrated with top priority into the existing curriculum of secondary education. The findings would help policymakers and curriculum developers to design a life skill based curriculum based on learner's priorities as reflected in this study. Life skills in which adolescents express disinterest should be re-evaluated for inclusion in the school curriculum .Serious efforts should be made to develop more innovative strategies to inculcate less preferred life skills so as to create student's interest and disposition for them.

Towards this end, life skills education can be designed to be spread across the curriculum, to be a separate subject, to be integrated into an existing subject, or a mix of all of these. Government need to support research,

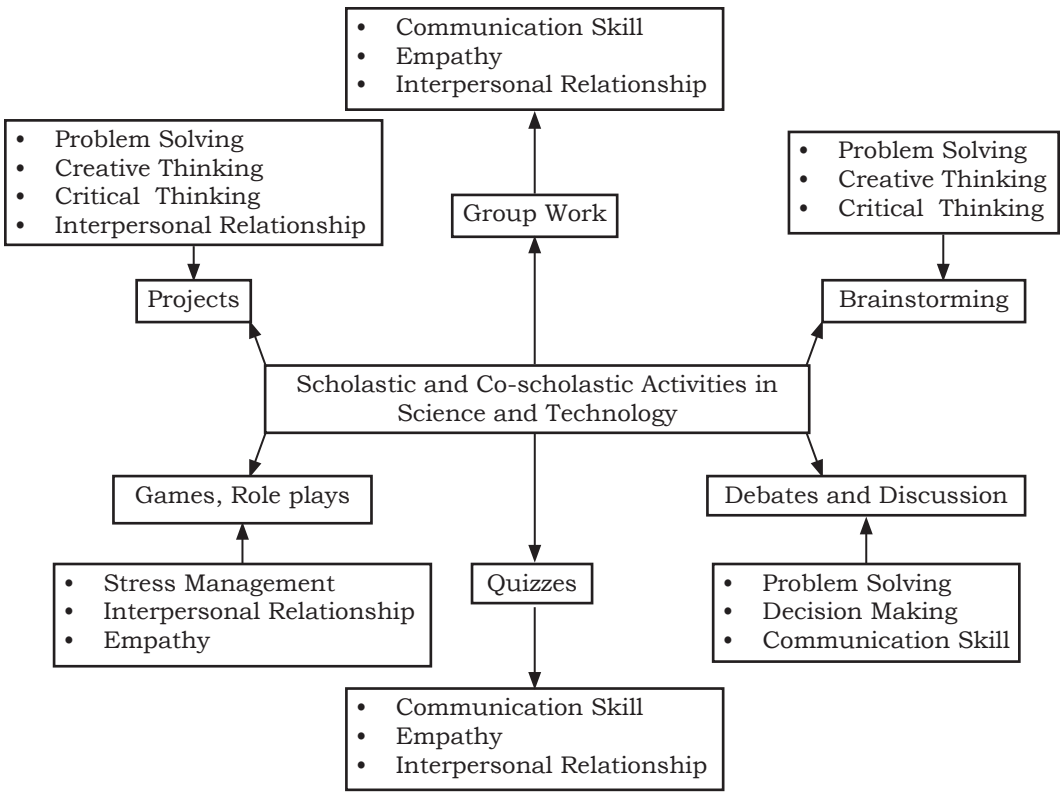

Figure 5 : *Chart of Scholastic and Co-scholastic activities to facilitate life skills development*

seminars and debate, nationally and regionally, on ways of strengthening life skills education. Teachers need to move beyond lecturing to create a stimulating learning environment as life skills learning cannot be facilitated on the basis of information or discussion alone. Development of all the life skills examined in the study can be facilitated through proper planning of scholastic and co-scholastic activities in teaching-learning situations.(Fig. 5)

Integrating life skills in academic subjects does not require expanding the curriculum, but it does require a formal instruction programme in a well structured classroom time table, in order to sublimate the usual complaints of burdensome course of study in the schools. There is a need to train teachers in how to put them across a content matter, how to monitor learners growth in these areas and in the underlying theory and methodology of life skill education. A more conscious and deliberate effort to promote life skills will empower learners and lead to development of more active citizens in the life of society. However, as with any new concept and method, it takes time for people to adapt, perhaps several years, for the curriculum to be revised and implemented correctly.

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Facilities in Government Rural Schools in Punjab
Require a Shift from Quantity to Quality

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Ritu**

Abstract

The state of Punjab has achieved a considerable success in terms of school infrastructure. As per the Educational Development Index (EDI) 2011 prepared by National University of Educational Planning and Administration (NUEPA), Punjab is at the top in infrastructural parameters in the country followed by Pondicherry and Andaman and Nicobar Islands. Given to the fact that the facilities in schools have a direct bearing on the quality of education as well as on the overall academic environment, the present paper provides information on the availability of various facilities in the school namely the drinking water, separate toilets for girls, electricity, availability of furniture for teachers and students, the condition of school building and other basic facilities like the boundary wall, playground, library and computers etc. The study finds that there is a stark difference between the institutional facilities available in the private schools and the government schools both in terms of institutional as well as human factors such as teachers' attitude, commitment. In spite of achieving a considerable success in terms of school infrastructure of government schools, a lot more is required to be done towards improving the quality, upkeep, community ownership and the parity at par to that of the private schools in the State.

The Backdrop

Punjab is considered to be one of those states in the country whose school infrastructure is reasonably good. In fact, as per the Educational Development Index (EDI) 2011 prepared by National University of Educational Planning and Administration (NUEPA),

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Punjab is at the top in infrastructural parameters in the country followed by Pondicherry and Andaman and Nicobar Islands. The EDI reflects remarkable gains made by Punjab on parameters of school accessibility, infrastructure and teaching facility outcomes. The data from District Information System on Education (DISE: 2009-10) reveals that 98 per cent habitations in Punjab is covered by a primary school. There is just 2.9 per cent single classroom schools where as average number of classrooms in 2009-10 was 3.6. No school in the State is housed in Kucha buildings (Juyal et.al:2007). On the whole, the overall situation is relatively better than many other Indian States. However, there is a stark difference between the institutional facilities available in the private schools and the government schools. The situation of private schools in terms of institutional as well as human factors such as teachers' attitude, commitment etc. is very different than the government schools. Though the State has achieved a considerable success in terms of school infrastructure but as regards the quality, upkeep, community ownership and the parity with the private schools, a lot more is required to be done. Against the backdrop, the present paper provides information on the availability of various facilities in the school namely the drinking water, separate toilets for girls, electricity, availability of furniture for teachers and students, the condition of school building and other basic facilities like the boundary wall, playground, library and computers etc. This analysis has been done keeping in mind the fact that all these facilities have a direct bearing on the standard of education as well as on the overall academic environment of the school.

The Sample

In order to analyse the availability of facilities in the rural schools of the State of Punjab, two most educationally backward districts with the lowest the literacy rates (as per the Census 2001) from among all the districts namely district Mansa and Muktsar of the state of Punjab have been purposively selected. A total of 52 villages have been drawn from both the districts (26 villages from district Mansa and 26 villages from district Muktsar) and the information on the availability of facilities in the sampled schools has been collected with the help of a pre-designed School Information Questionnaire.

The Results

Condition of School Building

As regards the school building, there was no school in the sample without a building or a school housed in a Kucha building. All the school buildings were owned by the government and nearly 90 per cent school buildings were in a fairly good condition, but very poorly maintained in the sense that they were not properly white-washed or painted on regular basis. The analysis reflected that about 17.3 per cent school buildings did not need any repair whereas significantly three-fifth (75 per cent) school buildings required one or the other repair work. For instance, some buildings required immediate white washing and painting. Some required mason work here and there. In some cases doors and windows were broken, there were no latches while in other cases ventilators required repairs and so did the electric fittings. But overall condition of these buildings was habitable and as such there was

no danger to life of the students and teachers. On the other hand, 7.7 per cent school buildings needed immediate attention as they required major repairs. Although these buildings were being used for classes but the poor condition of such buildings definitely has its own adverse affect on the overall academic environment of the school. For Instance, one of the school buildings was very old with seepage and the leaking roof. Another school building was very low lying and prone to frequent water logging particularity during the rainy season. In another school, space was a big constraint for the students. The provisions for sunlight were not adequate. In another case, the pot holes in the floors of the classrooms and verandah required immediate masonry work. The observation revealed that the teachers did not seem very happy about the lengthy procedural requirements and an avoidable load of paper work involved in getting the civil works initiated and implemented in the schools and nor there was any specialised staff to work out the costs and the estimates about the civil and construction works. In general, the overall condition of the school buildings was reasonably good as there was no school whose building was found to be dilapidated and nor was any school whose building paused a danger to the life of the teachers and the students. However, these buildings required maintenance and further improvement.

Availability of Drinking Water, Girls' Toilet and Electricity

Availability of drinking water and toilet is one of the basic requirements in any institution such as a school. Studies have proved that there is a direct correlation between the enrollments and drop out of students and the availability of the sanitation facilities within the school premises. *Sarva Shiksha Abhiyan* lays a great emphasis on provisioning of the basic facilities particularly the toilets and drinking water in all schools. Under SSA, there is a convergence with other government schemes so as to achieve 100 per cent coverage of these facilities. The Department of Drinking Water Supply in the Minister of Rural Development, Government of India has got provisions under Accelerated Rural Water Supply Programme to cover all rural schools with drinking water facility. The Total Sanitation Campaign (TSC) provides toilets and urinals for rural schools in coordination with local Panchayati Raj Institutions (MHRD: 2008). With these efforts and the efforts of many civil society organisations, a considerable success has been achieved towards provisioning the services relating to drinking water and sanitation in village schools. According to DISE (2009-10), 99.45 per cent schools in Punjab have drinking water facilities while 99.02 per cent schools had girls' toilets. According to the study carried out by Singh (2007) all primary schools in District Mansa had drinking water facilities where as there was a separate toilet for girls in 88.89 per cent rural primary schools in Mansa district. Similarly, all the primary schools in rural areas in District Muktsar had drinking water as well as separate toilets for girls (Singh and Choudhary: 2007). It was found that all schools in District Muktsar and Mansa had drinking water facilities whereas,

96.2 per cent schools in Mansa and 100 per cent schools of District Muktsar had girls' toilets. In total 98.1 per cent schools in the sample had girls' toilets within the school premises. Thus, it can be concluded from the analysis that the efforts under *Sarva Shiksha Abhiyan* and other schemes of the government are making a discernible impact on the quality of school infrastructure at the village level.

As regards the availability of a proper electricity connection in the school, the analysis revealed that there were a little more than one-third (36.5 per cent) schools in the sample which had a government approved electric connection. In this regard, the teachers told that paying electricity bill on time is a huge problem for them as there are no specific provisions in the school budget nor are there any funds under *Sarva Shiksha Abhiyan* for electricity bills. The teachers told that, many a times, the teachers had to arrange the required funds on their own either by individual contribution or by collecting money from each student. Sometimes the village panchayats also provide the necessary monetary help to the school. Thus, from the analysis it emerges that the VEDCs can certainly play a significant role on this aspect by networking with the local panchayats and the community people. But besides this the study recommends that the government must make some concrete and appropriate budgetary provisions so that the cost of electricity can be properly handled by the school.

Availability of Furniture

Availability of Furniture like chairs for teachers and benches for students is accorded very high importance under *Sarva Shiksha Abhiyan*. Otherwise also, the furniture for teachers and students is perceived to be of paramount importance by both the parents as well as the children. There is always a continuous demand for provisioning furniture in schools for a more conducive teaching learning environment (MHRD: 2008). In this context, the SSA Framework 2008 provides for separate funds for setting up suitable infrastructure including furniture for teachers and students.

Participation of community is mandatory in improving school facilities and to carry out civil works activities in a transparent manner (MHRD: 2008). Against this backdrop, it is attempted to know the status of availability of furniture in the sampled schools. The data revealed that as regards the availability of chairs to teachers, the situation was good as all the schools had chairs for the teachers. However, it was not so with regard to the availability of tables to teachers because there was about one-fifth schools where there were no tables in the classrooms meant for the teacher's use like checking notebooks etc. So far as the availability of benches to students is concerned, the situation was unsatisfactory because in about three-fourth schools, there were no benches for the students. In these schools, the students either sat on mats provided by the school or they carried their own mats (fertiliser bags) along with them. The findings of the study are different than the study done by Juyal et al. (2007) who found that there were 65.22 per cent rural primary schools in Muktsar District and 41.67 per cent schools of Mansa District where there were no benches for students. Overall

the availability and the quality of furniture in the schools required a lot of improvement. Although there has been an improvement over the years in the availability of furniture in the schools, however, the participation of VEDCs members as mandated under SSA in maintenance, upkeep and the purchase of furniture was observed to be minimal all along. It was observed that all the arrangements were being made by the head teacher or his colleagues alone while the VEDCs members just signed the purchase documents/vouchers without any follow up or a sense of ownership for the school amenities. It is, therefore, emphasised that the members of the VEDCs should work to ensure more cooperation towards the upkeep and the maintenance of the furniture in the schools.

Availability of other Facilities

This section reveals that 3.8 per cent schools in the sample did not have boundary walls. Nearly one-fifth (19.2 per cent) schools in the sample did not have an open space worth playing for children. No school had manpower for maintaining the playgrounds nor were there any sport facilities like the balls, nets, rackets etc. In about 9.6 per cent schools there were no library or book banks. First aids kits were not available in about 2 percent schools. About 7.7 per cent schools did not even have a wall clock. This situation was inspite of the fact that the *Sarva Shiksha Abhiyan* earmarks special funds for all these amenities. SSA makes it mandatory for each district to provide the list of schools which requires major repairs like the school buildings, rooms or erecting four walls. Ironically some schools in the sample didn't even have first aid kits and wall clocks which, as such, required a very little investment. Such small things can easily be arranged through donations or even from philanthropists provided the community people and the school teachers exhibit a sense of belongingness to their school. Though there is no dearth of funds for infrastructure and for procuring teaching learning materials, as such, under SSA. But even then, some schools remained deprived of the bare minimum facilities. As regards other facilities the situation was reasonably good as far as the availability of things like black boards, chalks, dusters, almirahs/ boxes and school bells was concerned. The things like black boards, chalks, dusters, almirahs/boxes, school bells and mid day meals were although available in all the schools, but the quality and the maintenance of these facilities required immediate attention. For instance, with regard to the mid day meals , many teachers reported that the children hardly relish the food served while many parents lamented poor quality and irregularity in distribution of mid day meals to the children. Some of them even hinted at corrupt practices in the purchase of some food items. Similarly, in many schools, the first-aid kits, the books were not in a usable condition. The almirahs and boxes for keeping school records were being very poorly maintained.

Summing Up

In this situation, it is underlined that apart from the availability, what is more important is the proper care

and maintenance of the facilities by the appropriate stakeholders. Mere availability of such things is unlikely to fetch the desired results unless their quality is improved and secondly the people manning them show more commitment and accountability towards their optimal use. In today's era of competition, when the government schools are facing competition from the private schools, it is unreasonable to suggest that mere availability of the most the basic facilities like the black boards, almirahs and book banks etc. would improve the quality of education in rural schools. There is urgency for the Government to augment the focus on institutional factors with the human factors like the attitudes and the commitment of the school teachers and parents. The experiences have shown that in spite of good service conditions and job security, the teachers of government schools don't exhibit a sense of ownership and commitment towards the upkeep and maintenance of the village schools.

It is , therefore, suggested that there is need to further improve the school infrastructure so as to make it at par to that of the private schools and secondly the human factor in terms of teacher's characteristics should also be focused upon. The focus of attention needs to be both on the infrastructural facilities as well as the characteristics of teachers and the parents. Unless this paradigm shift take place, it is highly unlikely that the government schools would have any visible impact on the quality of education at the grassroots level. It is high time that the government and the community bring some radical changes in the school education apparatus itself. It is already clear that despite Punjab being at the top in school infrastructure (Education Development Index: 2011), a lot more is needed to improve the school education in terms of the quality, equity and the parity with the private schools. It is highly doubtful that mere availability of the most basic facilities in government schools would change the perception of the people or improve the quality of school education unless some radical changes in terms of human factors are brought about by the government urgently. The parents, by and large, too have a sense of alienation towards the schools owned by the government. It is high time that the policy makers in the government must now realise that so long as the teacher and the parents, who are the central cog in the educational apparatus of the government, do not own the village school, mere availability of facilities would possibly not yield the desired educational outcomes at the community level.

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Academic Anxiety — A Curse for Academic Achievement of Adolescents
A Reality or Myth

Ratna Gupta*
Om Prakash Awasthi**

Abstract

We all have experienced situations in our lives which have posed challenges for us. All the challenges and problems put us to stress and that results in anxiety. Adolescence is the most critical period of human life. The child experiences a number of changes in this transitional period. The adolescent has to change in old habits of childhood in home, school and society. The change over to new pattern of habits creates anxiety in adolescents. This anxiety is a catalyst for achievements or it works as a curse? This paper makes an effort to explore this question. The main aim of the study is to explore role of academic anxiety in academic achievement. For this purpose 160 adolescents comprising 80 males and 80 female studying in different schools of Bareily city were selected through random sampling technique. Tool employed for the purpose was Academic Anxiety Scale for children (AASC) by Dr. R.K. Singh. Role of Anxiety in achievement was found to be negative.

We all have experienced situations in our lives which have posed challenges for us. All the challenges and problems put us to stress and that result in anxiety.

Adolescence is the most important period of human life. The child experiences a number of changes in this transitional period. The adolescent has to change in old habits of childhood in home, school and society. The changeover to new pattern of habits creates anxiety in adolescents.

Generally anxiety can be either a trait or a state anxiety. A trait anxiety is a stable characteristic or trait of a person. A state anxiety is one which is

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aroused by some temporary condition of the environment such as examination, accident, punishment etc. Academic anxiety is a kind of state anxiety which relates to the impending danger from the environments of the academic institutions including teacher, certain subjects like mathematics, English, etc.

Different types of studies have been conducted on anxiety by Joshi, G. (2000), Alam, M.M.(2001), Devi, P and Ahmed, J.(2006), Agarwal, M (2006), Anup, S. and Zinnia, S. (2008), Pushpanjali, B.S. (2007), Parvathamma, G.H. and Sharnamma, R(2010). But so far no study has been conducted to explore role of academic anxiety in achievements of adolescents of Bareilly city. So, the investigator decided to explore whether academic anxiety a boon or bane for academic achievement.

Statement of the Problem

Academic Anxiety — a curse for Academic Achievement of Adolescents- A Reality or Myth

Objectives of the Study

The objectives of the study are as follows :

- to explore the role of academic anxiety in academic achievement.
- to study correlation between academic anxiety and academic achievement.
- to determine gender biases with respect to academic anxiety and academic achievement.

Hypothesis

To achieve the objectives of the study the following hypothesis were formulated and tested empirically –

H1- High level and average level anxiety students do not differ significantly in their academic achievement.

H2- There is no significant difference in the academic achievement of the students having high anxiety level and low anxiety level.

H3- Students with average level anxiety and low level anxiety do not differ significantly in their academic achievements.

H4- There is no significant correlation between academic anxiety and academic achievement of boys.

H5- There is no significant correlation between academic anxiety and academic achievement of girls.

H6- Significant gender biases do not exist with respect to academic anxiety and academic achievement.

Methodology

Sample – All students of IX standard studying in different missionary and public schools of Bareily city were the population of the study. 160 students in all, comprising 80 boys and 80 girls were selected through random sampling technique. Sample distribution is shown in table given below-

Table 1
Distribution of Sample

S.No	*Name of School*	*No. of Students*		
		Boys	Girls	Total
1	Radha Madhav Public School Bareilly	20	20	40
2	C.M. Public School Bareilly	20	20	40
3	Bishop Conard S.S. School, Bareilly	20	20	40
4	Heartman School Bareilly	20	20	40
Total		80	80	160

Tools

In the present study Academic Anxiety Scale for Children (AASC) by Dr. A.K. Singh and Dr. (Ms) Sengupta has been used. The total number of items in this test is 20; there are two types of items- positive and negative. The maximum possible score of this test is 20. High score on this test indicates high academic anxiety and low score on the test indicates low academic anxiety.

The reliability of this test through test retest method is .60 and it is significant at .01 level, and through split half method is .65 and it is also significant at .01 level. The present test has been validated against neuroticism scale, Sinha Anxiety scale and CAAT and correlation coefficients values were .31, .41, .57, respectively. These values were significant at .01 level. Thus it is a valid test. For academic achievement percentage of marks in half yearly examination was the criteria.

Statistical Techniques

Mean, Standard Deviation (SD), Correlation and Critical Ratio tests were used for analysis of data.

Analysis and Interpretation

On the basis of analysis of data mean, S.D. and C.R. values of Academic Achievement and Academic Anxiety of the students were calculated and are shown in table 2.

It is quite clear from the table that the students having high level of anxiety have lowest achievement and the students having average level of anxiety have average achievement and the students having lowest level of anxiety have the highest achievement, thus anxiety plays an important role in achievement; it is a curse for achievement.

The achievement of the students having high anxiety level is lesser than the students having average anxiety level and the students with low anxiety level and this difference is significant at .05 level. Thus H1, that is, high level and average level anxiety students do not differ significantly in their academic achievement is rejected. Similarly H2, that is there is no significant difference in the academic achievement of the students having high anxiety and low anxiety level, is also rejected.

Average level anxiety students' achievement is lower than the students having low anxiety level thus H3, students with average level anxiety and low level anxiety do not differ significantly in their academic achievement is also rejected. These findings are supported by the findings of Sharma and Rao (1984) which states that academic performance is negatively influenced by test anxiety. It may be because anxiety in an individual may cause emotional disturbances, reduce

Table 2

Role of Academic Anxiety in Academic Achievement

S.No.	*Academic Anxiety*			*Academic Achievement*		*Group compared*	*C.R.*	*Df.*	*P*
	Level	*M.*	*S.D.*	*M.*	*S.D.*				
1	High(N=29)	44.8	4.75	54.75	12.12	H Vs A	3.12	37	>
2	Avg(N=82)	33.45	4.28	62.00	11.54	H Vs L	5.69	80	>
3	Low(N=29)	21.15	4.7	69.75	11.11	A Vs L	3.54	37	>

concentration and create high pressure and stress on mind which could result in restlessness, irritability and upset in glandular secretion. All these further reduce the efficiency in academic achievement.

To study relationship between academic anxiety and academic achievement of boys and girls, correlation coefficient was calculated, values obtained are shown in the table given below-

Table 3
Correlation between Academic Anxiety and Academic Achievement of Boys and of Girls

Gender	*N*	*df*	*r*	*P value*
Boys	80	78	-0.54	<
Girls	80	78	-0.40	<

It is clear from the table that correlation coefficient between academic anxiety and academic achievement of boys is -0.52 but is not significant at 0.05 level. Thus, H_4 there is no significant correlation between academic anxiety and academic achievement of boys is accepted.

Similarly, correlation coefficient between academic anxiety and academic achievement of girls is -0.40. it is insignificant at 0.05 level. Thus H_5, there is no significant correlation between academic anxiety and academic achievement of girls is also accepted. Another thing is also visible from the table that there is moderate negative correlation between academic anxiety & academic achievement of boys but in case of girls it is low negative. The meaning is that academic anxiety affects boys' academic achievement much more negatively than that of girls'. It may be because adolescents constitute the sample of the study and girls grow mature much before than boys. Besides, they pass much more time at home where they are all the time at home and are with their parents and older ones who are much more anxious so they are used to live with this phenomenon so it does not affect their achievement so negatively as it does in case of boys.

To explore gender biases in relation to academic anxiety and academic achievement, M., S.D., C.R. were calculated, values obtained are shown in the table given below.

It is clear from the table that girls have somewhat more anxiety level than boys, but this difference is not statistically significant. This finding is supported by the findings of Chatterjee et.al (1976), Durette (1965), Sharma and Ghandhi (1971) and Hijhwan (1972). It may be because girls pass more time at home and naturally pass more time with parents who are more restrictive and anxious because as the age increases anxiety of the individual also increases. Sastry (1990), Fava and Molloy (1998)

Table 4
Gender Biases in Academic Anxiety and Academic Achievement

S.No.	*Variables*	*Groups*	*N*	*M*	*S.D.*	*C.R.*	*P*
1	Academic Anxiety	Boys	80	32.13	8.83	1.42	<
		Girls	80	34.25	9.99		
2	Academic Achievement	Boys	80	66.13	14.44	4.02	>
		Girls	80	57.87	11.39		

Keralak (2002). But so far as academic achievement is concerned gender biases exist significantly at 0.05 level. It may be because science students constitute the sample of the study and the boys' academic achievement in science subjects is higher than that of girls (Kaur, R. and Gill, J.K.(1993).

Thus, gender biases do not exist in academic anxiety but in academic achievement gender biases exist. Thus H6, that gender biases do not exist in academic anxiety and academic achievement is partially accepted and partially rejected.

Conclusion

Anxiety plays an important role in academic achievement. It is reality not a myth that academic anxiety is a curse for academic achievement. Highest the anxiety, lowest the achievement, lowest the anxiety, highest the achievement. Thus both at teachers level and parents level efforts should be made for minimising the anxiety level so as to maximise the achievement. For this purpose small group interactions can be encouraged, counseling and guidance services can be provided and school climate and psychosocial environment in which the students study, can be evaluated to check whether the academically anxious perceive their environment as congenial or not, if not, efforts should be made to make it congenial one.

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Each Student May Learn

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Abstract

Dr. Howard Gardner, Professor of Education at Harvard University developed in 1983 the theory of Multiple Intelligence. He criticised the notion that intelligence is a unitary concept. He held the view that the traditional notion of intelligence does not take into account the entire human potential. He mentioned that each human being is born with 8 intelligences. They spring from different areas of the brain. These separate intelligences have their specific sets of abilities. But all these intelligences are not equally developed in an individual. Dr. Gardener mentioned that each child is talented and has a unique way of thinking and learning. But his/her ways of learning are not addressed in verbally and logically mathematical dominated classrooms. He therefore, pleads that teachers should teach in a variety of ways to match his/her teaching style to match the learning style of his/her students. Learning style of a child is determinated by highly developed intelligences and less developed intelligences. He therefore, highlights that there are eight pathways to learning. As such, students with different sets of intelligences are sitting in a classroom. The variety of ways of teaching would match different learning styles of students in a classroom. In this way each child in the classroom would get the opportunity to learn.

1. Need for Preparing Quality Teachers

Raising educational achievement of students in the fast changing global knowledge economy is the prime concern of every country in the world. It is being increasingly realised that 'in modern knowledge economies, education is both the key driver of economic growth and a key social equaliser' (Asia Society 2011). Teacher quality is the biggest in-school contributor to student achievement. Further the quantified education system cannot exceed the quality of teachers.

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Therefore, we need to strengthen teacher preparation programme to turn out quality teachers. Prospective teachers need to be oriented properly as to how students learn differently and they have different learning styles.

Teaching is mostly didactive in our classroom. Teachers lay a great emphasis on strict content delivery or what is known as 'sit and get' approach. This is hardly an effective approach for facilitating effective learning on the part of students.

2. Traditional Concept of Intelligence

The traditional concept of intelligence is that it is a single general capacity for logical thinking, reasoning and use of language. It predicts school success. It can be measured and qualified using verbal and non-verbal tests. It was Binet who first developed in 1914 an intelligence test. He highlighted that Intelligence Quotient can be determined by the formula mentioned below:

$$IQ = \frac{\text{Mental Age}}{\text{Chronological Age}} \times 100$$

The most widely used intelligence tests providea single score that reflects general intelligence (g).

Dr. Howard Gardner, Professor of Education at Harvard University developed in 1983 the theory of Multiple Intelligences. He highlighted that the traditional notion of intelligence does not take into account the entire human potential. He held the view that human beings are intelligent in more than one way. He therefore criticised the unitary concept of intelligence(g). Every individualhas eight intelligences (8gs) instead of one 'g'. He highlighted that human beings possess eight distinct units of mental functioning. He labels these units as intelligences. They spring from different areas of the brain. 'These separate intelligenceshave their specific sets of abilities which are observed and measured'. (Gardner, 1983)

2.1 Human beings are Smart in Eight different Ways

Gardner labels these intelligences as "smarts". People are smart in a number of respects. They are word smart, number smart, picture smart, music smart, body smart, people smart and nature smart. No individual is smart in all these respects. Some are smart in respect of two or three abilities and they are weak or less smart in respect of other abilities.

2.2 Eight Basic Intelligences or Eight Different Minds

Eight intelligences identified by Howard Gardner are highlighted below. Because of these different intelligences, it can be mentioned that individuals have eight different minds:

Linguistic Intelligence	Word Smart	
Logical Mathematical Intelligence	Number/ Reasoning/ Logic smart	
Spatial Intelligence	Picture Smart	

Bodily kinesthetic Intelligence	Body Smart
Musical Intelligence	Music Smart
Interpersonal Intelligence	People Smart
Intrapersonal Intelligence	Self-smart/ Self-reflection
Naturalist Intelligence	Nature smart/ an experience in the natural world

3. Different Kinds of Mind and Different Kinds of Jobs

Having different or eight kinds of minds is not a problem. Rather it is an asset. In our world, we have different kinds of jobs to be done. So it is good thing that'there are different kinds of minds to do them' (Levine, 1993). This is rendering this world a wonderful place. Let us suppose that in this world, there are only people who are strong in Linguistic and logical mathematical intelligence and they are weak inotherintelligences. These people will be good in mathematical operations and they will be orators. But then who would do the job of a carpenter. In that case, there would be no musician or dancer. Similarly, if they are only people who are body smart, then the world would be deprived of mathematicians, speakers, preachers, etc. Then this world would not have been a happier place to live in.

4. Eight Pathways to Learning

As mentioned above, everyone is born with all the eight intelligences. But these are not equally developed in an individual. This means that different individuals are strong in two or three different intelligences and weak in other intelligences. Given below are sketches of brains of two different persons. 'This manifests clearly that each person brain is different'. (Hyggins and other, 1997) Sketch-1 manifests that the person is strong in Logical Mathematical and Musical intelligences and weak in other intelligences. Similarly, second Sketch-2 manifests that the person isstrong in Spatial and Linguistic Intelligences and weak in other intelligences.

Sketch 1 **Sketch 2**

Gardner claims that these eight intelligences rarely operate independently. Rather these intelligences are used concurrently and typically complement each other as individuals solve problems. For instance a surgeon undertakes operations. For undertaking operations, he/she requires at least

three intelligences-Bodily kinesthetic, Spatial and Interpersonal to undertake the operations. Similarly, a dancer uses three intelligences – Bodily kinesthetic, Musical and Interpersonal.

4.1 Learning Styles of Students

In the context of a classroom, there are normally 40 students or so. These students come to the classroom with different sets of developed intelligences. This means that each child has unique set of intellectual strengths and weaknesses. This is commonly referred to as learning style of a student. Different strong intelligences of a student determine her/his learning style. Therefore the students with many learning styles are in a classroom. These sets of intelligences determine how easy or difficult it is for a student to learn information when it is presented in a particular manner.

According to Gardner, there are eight potential pathways to learning. Students do not learn only through traditional linguistic or logical ways of instruction. They also learn through pictures, music, physical experience, social experience, self-reflection and experience in the natural world.

In a situation, a teacher is experiencing difficulty in reaching a student through traditional linguistic or logical ways of instruction, he/she should use other ways which involve learner's talent(s) in other areas to facilitate effective learning on his/her part. Thus, Gardner suggests that these are eight pathways to learn rather than two believed traditionally.

Implications of the theory of Multiple Intelligences in the Classroom – Role of Teachers

The theory of multiple intelligences acknowledges that all the students are not linguistically or mathematically gifted. Therefore, all cannot learn through traditional transactional approaches which involve pupils' only two intelligences - linguistic and logical - mathematical. Teachers should transact the curriculum in a wide variety of ways usingthe following transactional approaches:

Transactional Approach	*Beneficiaries*
Role Play	Pupils having high bodily kinesthetic intelligence
Cooperative learning	Pupils with high interpersonal intelligence
Songs / Music	Pupils with high musical intelligence
Art Activities	Pupils with high artistic spatial intelligence
Activities – Learning by doing	Pupils with high bodily kinesthetic intelligence
Field trips	Pupils with high natural intelligence
Inner reflection	Pupils with high intrapersonal intelligence
Pictures, graphs and other Visual Materials	Pupils with high artistic spatial intelligence

5. Every Student has potentialities to Learn

The theory of multiple intelligences amply demonstrates that there are money ways students learn. The theory further highlights that each student learns when teacher's way of presenting content matches students' learning style. Gardner mentions that all the over the world teachers teach in such a way that only those students who are strong in linguistic and logical mathematical intelligences learn the best. Others, who are talented in other intelligences but weak in linguistic and logical mathematical intelligence, hardly learn appropriately. Many of these students are labeled as 'learning disabled or under-achievers'. These students' have their unique ways of thinking and learning. These ways are not addressed by heavily dominated logical mathematical and linguistic classrooms.

The theory suggests that every student has the talent to learn. So instead of labeling students as 'learning disabled' or 'under-achievers' teachers need to trained to present their lessons in a wide variety of ways using music, cooperative learning, art-activities, role play, multi-media, inner reflection etc. This would facilitate effective learning on the part of all the students. This is because it engages most or all the intelligences.

6. Instilling Belief among Student-teachers that Every Student can Learn

Instruction is impacted directly by beliefs of teachers about learning. Normally teachers in our schools believe that all students in the class cannot learn. This is because some students' level of intelligence is very low. Theory of multiple intelligences guides us that every individual is talented. Individuals are talented in eight different ways. Learning is perceived and received in more than one way. There are eight pathways to learning. Colleges of education both at the elementary and secondary level need to instill belief among their student-teachers that every child can learn. They need to be provided suitable experiences to teach in a variety ways.

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Formative Assessment—Theory Vs Practice
An Experience from Higher Secondary Schools of Kerala

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Abstract

Formative Assessment is an on going evaluation of student performance for the purpose of assessing student learning and planning instruction. Many state boards and national boards like CBSE already implemented Formative Assessment as a component of Continuous and Comprehensive Evaluation (CCE). In Kerala it has been implemented since 1997 at various levels of school education. The present study aims to find out how far the formative assessment practices in the higher secondary classroom correlated with the summative assessment scores over the years. Documentation analysis was used for collecting relevant data for the study. Higher Secondary Board Examination results of 100 students under Science stream from two schools were collected during the year 2007 and 2010 respectively from the school records. The data were analysed with the help of correlation and t-test. The study reveals that correlation between formative assessment and summative assessment was positive in all subjects but small and negligible. More over it was found that there exist no difference in the correlation between formative assessment and summative assessment during 2007 and 2010.

Introduction

The term assessment is widely used in different situations of our daily life. Especially in the domain of education, its application and use is essentially important. Whenever we think about education or discuss about education the 'prime word' that is coming in our mind is the quality. The efforts taken by government for ensuring quality in the

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field of education, especially in the field of school education is commendable. India as a whole has been working for the realisation of universalisation of elementary education through different programmes like DPEP, SSA and RMSA. All these programmes had given emphasis on four essential aspects viz. Universal Enrollment, Universal Retention, Equity and Quality. But unfortunately till date, we are not able to succeed in the attempt of quality dimension. The RTE Act 2009 can be considered as a right move in the direction of the realisation of forth aspect namely quality, provided if it is implemented in the right- spirit and sense with whole hearted support from all. Section 24 (1) (d) of RTE Act state that a teacher appointed as per the rule shall perform the duty of assessing the learning ability of each child and accordingly supplement additional instructions, if any as required. Section 29 (2) (h) mentions that, concerned academic authority should give importance to Comprehensive and Continuous Evaluation(CCE) of child's understanding of knowledge and his or her ability to apply the same while framing school curriculum.

NCF–2005 and its position paper on examination reform provide details the ill effects of the traditional system of evaluation in school and suggest the implementation of CCE.

Theoretically CCE includes two major aspects viz. continuous aspects and comprehensive aspects. Continuous aspects include the evaluation of learning process, at each and every moment of instructional process and comprehensive aspects stress about evaluating the development of each and every dimension of pupil. Schools are expected to make use of formative assessment as well as summative assessment as a part of CCE.

Formative Assessment

Formative Assessment is an on going evaluation of student performance for the purpose of assessing student learning and planning instruction.

Black and William defined it as "all those activities undertaken by teachers and/or by students which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged."

As assessment is formative to the extent that information from the assessment is used during the instructional segment in which the assessment occurred to adjust instruction with the intent of better meeting the needs of the students assessed (Popham, 2006).

The above definitions emphasises the following characteristics of formative assessment

- It is an ongoing activity
- It is a part and parcel of instructional process
- It provides feedback for teacher to modify the subsequent classroom activities
- It gives emphasis to the importance of teacher pupil interaction in instructional process
- It provides feedback to the students about their weakness and strength.

While discussing about continuous aspect of assessment we should be aware about different processes of Assessment. They are as follows:

1. Assessment for Learning

Teachers can make use of different strategies and techniques during the learning process in order to help the student to progress toward a desired goal. Those give aims to bridge the gap between student's current status and the desired outcome. This is a teacher initiated, student-context process and is integrated with each and every learning activity in the classroom.

2. Assessment as Learning

This is a student-oriented process. Though the critical review of the work done by himself or herself the student will be able to recognise by the strong as well as weak arrears during the activity. It is a process where students set learning goals, share learning steps and criteria at success, and evaluate their learning through discussion and self and peer assessment.

3. Assessment of Learning

After the end of an instructional process in order to find out the amount of learning and for informing it to the different stakeholders one can utilise assessment process, which is known as assessment of learning. These are specifically used to determine the degree of achievement of competencies in particular subject areas.

Out of these three processes of assessment the first two are generally done during the instructional process or we can say that they are on-going activities. Both of them can be considered as part of formative assessment. But the last process, actually is generally conducted at the end of an instructional process is considered as summative assessment.

Research Evidence

Many researchers found that properly implemented classroom based formative assessment inculcate student learning and performance (Crooks, 1988, Black and William, 1998, Eal and Katz, 2006 Furtak *et al*, 2008, Ross 2004). Formative assessment also helps to develop meta cognitive skill among students (Assessment Reform Group, 2002. Shepared *et al*, 2005, William, 2007). Studies conducted (Black and William, 1998, Furtak *et al*, 2008, Shepared et al, 2005, Yin *et al,* 2008,) suggest the importance of teacher support and professional development to implement formative assessment.

Fery, Caroline Adams (2009) found that in Rhode Island, even though the teachers can define summative and formative assessment, but lack a deep understanding with regard to how these forms of assessment can be used to improve student learning.

Various studies conducted on this area supports that FA has the following effects.

- Pupils learn more effectively.
- Involvement of pupils in the teaching learning activity is more.
- More focus on individualised instruction
- Increase in students' confidence and self esteem.
- Participation of less able pupils is more

Studies conducted in various countries suggests that following strategies can be used for formative assessment

- Short Quizzes
- Reflective Journals.

- Model eliciting activities
- Generative activities
- Observations
- Questioning- higher order
- Self assessment
- Peer assessment
- Problem solving techniques
- Traffic lighting
- Formative feedback
- Formative use of summative assessment

Formative assessment is by definition an interactive process involving both students and teachers. There is a need for deeper understanding of the students' part in the formative process. Similarly the role of parents in formative assessment is crucial since the decrease in the frequency of summative techniques will be viewed negatively.

Rationale of the Study

From the experiences gathered during the introduction of DPEP in select districts of Kerala during 1994-95 from Classes I to IV, the Government of Kerala implemented the system of CCE at various levels of school education. It was implemented up to Class X in 2004-05, and the first batch of students under this system comes out from 10th standard in 2005 and subsequently it was introduced in Higher Secondary level during 2005-06 and the first batch comes out in 2007. Scholastic performances of students in different subjects are assessed based on Formative Assessment namely Continuous Evaluation (CE) and Summative Evaluation namely Terminal Evaluation (TE) score in the high school and higher secondary school levels. In the board examinations at 10th and 12th the state follows 9 point absolute type of indirect grading system. Higher secondary level in the board examinations the students will be given the certificate which consists of scores in CE and TE as well as the corresponding grade total. The maximum score for CE is 20.

Specific guidelines and orientation were given to the teachers to implement CCE. The first author of this paper worked as a Higher Secondary Teacher in Mathematics from 2005 to 2008 and received training and guidelines. Different strategies to be used to evaluate the multi dimensional competencies of the learners were explained in those training programmes. The following strategies were used for assessing students' performance in CE.

- Project
- Seminar
- Practical
- Assignment
- Collection
- Records/albums
- Class tests

Different scoring indicators also were given for each strategy and were given in their respective source books. This system of evaluation has been followed for the last five years in Higher Secondary Schools in Kerala. As a result many teachers incorporate aspects of formative assessment into their teaching, but it is less common to find it practiced systematically. Hence an initiative has been taken to find out how far this strategy reflects in the summative assessment.

Objectives

The objective of the study was to examine how far the formative assessment practices in the higher secondary classroom correlated with the summative assessment scores over the years.

Research Questions

The study was guided by the following questions.

1. To what extent the formative assessment scores are related with the summative assessment score during the first year of implementation?
2. To what extent the formative assessment scores are related with the summative assessment score during the year 2010?
3. Is there any difference in the correlation between FA and SA score over the years?

Methodology

Survey method using documentation analysis was used for the study. Higher Secondary Board Examination results of 100 students under science stream from two schools were collected during the year 2007 and 2010 respectively from the school records. The result contains the score in continuous evaluation (Formative assessment) and Terminal Evaluation (Summative Assessment) separately in 6 different subjects. The scores were statistically analysed with the help of product moment correlation coefficient, correlated t-test and significance difference between correlations.

Analysis of Data

The correlation coefficient between FA and SA score was calculated and the significance of the correlation also tested during the year 2007 and 2010 separately. The results are given in the following tables.

Table 1
Correlation between FA and SA score during 2007

Subject	*Mean score*		*Correlation Coefficient*
	CE(FA)	*TE(SA)*	
English	19.5	47.3	0.13
Malayalam	18.7	71.8	0.23
Physics	18.8	29.7	0.28*
Chemistry	17.4	25.9	0.12
Mathematics	18.9	40.7	0.26*
Biology	17.4	33.1	0.38*

*Significant at 0.01 level.

Table 1 gives the mean score obtained during 2007 in FA and SA together with the product moment correlation between them. The mean score in formative assessment ranges between 17.4 and 19.5 out of maximum possible score of 20. In the case of summative assessment score, it can be seen that the mean score in English is 47.3, in Malayalam 71.8 and in Mathematics 40.7 out of 80. In the case of Physics the mean SA score is 29.7, in Chemistry 25.9 and in Biology 33.1 out of 60.

Again from the table, it can be seen that all the correlation coefficient are positive but very small and negligible in the case of English and Chemistry. In the remaining subjects correlation is low. But correlation between FA and SA score for the subjects Physics, Biology and Mathematics is found to be statistically significant at 0.01 level.

Table 2
Correlation between FA and SA score during 2010

Subject	*Mean score*		*Correlation coefficient*
	CE	*TE*	
English	18.9	49.3	0.16
Malayalam	19.4	70.5	0.27*
Physics	18.3	29.5	0.19
Chemistry	18.1	30.2	0.21
Mathematics	17.7	40.4	0.23
Biology	18.3	33.7	0.33*

*Significant at 0.01 level.

Table 2 gives the mean score obtained during 2010 in FA and SA together with the product moment correlation between them. The mean score in formative assessment ranges between 17.7 and 19.4 out of maximum possible score of 20. In the case of summative assessment score, it can be seen that the mean score in English is 49.3, in Malayalam 70.5 and in Mathematics 40.4 out of 80. In the case of Physics the mean SA score is 29.5, in Chemistry 30.2 and in Biology 33.7 out of 60.

Again from the table, it can be seen that all the correlation coefficient are positive but very small and negligible in the case of English and Physics. In the remaining subjects correlation is low. But correlation between FA and SA score for the subjects Malayalam and Biology is found to be statistically significant at 0.01 level.

In order to find out the significance difference between the mean scores of FA and SA during 2007 and 2010, the scores were converted into percentage and then t-test was applied. The results are given in the following tables.

Table 3
Mean, SD and t- value for FA and SA score during 2007

Subject	*Mean score in percentage*		*Standard Deviation*		*t-value*
	CE	*TE*	*CE*	*TE*	
English	97.5	59.1	3.35	15.07	24.27*
Malayalam	93.5	89.8	1.88	6.89	5.02*
Physics	94	49.5	5.52	9.86	38.74*
Chemistry	84	43.2	5.57	15.87	25.38*
Mathematics	94.5	50.9	6.1	13.31	28.31*
Biology	87	55.2	4.58	8.41	31.27*

*Significant at 0.01 level.

From the table 3, it can be observed that, mean score in percentage of formative assessment is very high in all subjects. But in the case of summative assessment the maximum score is in Malayalam, which is comparatively high, in rest of the subjects, it is found to be average. The calculated t-value in all subjects are found to be greater that the critical value of 2.63 at 0.01 level. Hence, it can be concluded that there exist a significant difference in the mean score between FA and SA. In all subjects the mean- score in percentage is higher for formative assessment.

Table 4
Mean, SD and t- value for FA and SA score during 2010

Subject	*Mean score in percentage*		*Standard Deviation*		*t-value*
	CE	*TE*	*CE*	*TE*	
English	94.5	61.6	4.28	13.21	23.67*
Malayalam	97	88.1	2.31	5.43	12.28*
Physics	91.5	49.2	5.11	10.47	34.12*
Chemistry	90.5	50.3	4.87	11.94	29.76*
Mathematics	88.5	50.5	7.23	16.27	19.49*
Biology	91.5	56.2	5.18	9.76	29.93*

*Significant at 0.01 level.

From the table 4, it can be observed that, mean score in formative assessment is very high in all subjects. But in the case of summative assessment the maximum score is in Malayalam, which is comparatively high, in rest of the subjects, it is found to be average. The calculated t-value in all subjects are found to be greater that the critical value of 2.63 at 0.01 level. Hence, it can be concluded that there exist a significant difference in the mean score between FA and SA. In all subjects the mean- score in percentage is higher for formative assessment.

Correlation between FA and SA over the years 2007 and 2010

In order to find out the significance of the correlation between FA and SA score over the years 2007 and 2010, the data were analysed using significance difference between correlations. The detail of the analysis is given in the table 5.

Table 5
Significance difference between Correlation- 2007 and 2010

Subject	*Correlation coefficient between CE and TE*		*t-value*
	2007	*2010*	
English	0.13	0.16	0.29
Malayalam	0.23	0.27	0.39
Physics	0.28	0.19	0.88
Chemistry	0.12	0.21	0.88
Mathematics	0.26	0.23	0.29
Biology	0.38	0.33	0.49

*Significant at 0.01 level.

Table 5 reveals that the t-value calculated for the difference between correlation coefficient in 2007 and 2010 for all subjects are less than the critical value of 2.63 at 0.01 level. Hence, it can be concluded that there exist no difference in the correlation coefficient between FA and SA score during 2007 and 2010 for all subjects. Therefore, we can say that the relationship between formative assessment score and summative assessment score during 2010 is resembles with that of implementing year.

Findings and Discussion

The present study reveals the following:

1. there exist a positive but small and negligible correlation between the FA and SA score for English and Chemistry during the year 2007 and for English and physics during 2010.
2. there exist positive but low corre-lation between FA and SA score for subjects Malayalam, Physics, Mathematics and Biology during 2007 and for Malayalam, Chemistry, Mathematics and Biology during 2010.
3. the correlation between FA and SA score is statistically significant for the subjects Physics, Biology and Mathematics during 2007 and for Malayalam and Biology in 2010.
4. there exist a significant difference in the mean score in percentage between FA and SA score in all subjects during 2007 as well as in 2010.
5. there exist statistically no signifi-cant difference in the correlation

between FA and SA Score in 2007 and 2010.

The findings of the present study indicate that, the relationship between formative assessment and summative assessment scores is low and negligible in some cases. The findings also indicate that the same trend has been seen during 2007 and 2010. This result shows that even after four years of implementation of CCE practices in higher secondary schools, no significant difference has been reflected in the assessment process. The studies reviewed earlier shows that if formative assessment is implemented in effective way, that surely will influence student learning (Crooks, 1988, Black and William, 1998, Eal and Katz, 2006 Furtak *et al*, 2008, Ross 2004). Hence the present findings contradict the findings of these studies. It clearly indicates the shortcomings of the implementation and scoring strategy followed in formative assessment. The high mean score in formative assessment with a low standard deviation shows that students are homogenous. But in the case of summative assessment the mean score is moderate with a high standard deviation. This shows that the same group is heterogeneous.

Employing formative assessment strategies in the classroom setting need much more practice and change in the traditional attitude of teachers. The traditional view of teaching as a process of transmission of knowledge and learning as the process of acquisition of knowledge should be changed. Teachers should know how to use appropriate strategies of formative assessment and how to use it effectively for the better development of pupil. He/She should be well aware about how to construct and administer and interpret the assessment, to help the students to involve in their own assessment process. More over they should be able to use the result for giving appropriate suggestions to the students and for developing apt instructional materials in the future.

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Social Networking Sites — Friend or Foe of Social Skills in Education

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Abstract

The social networking sites are gaining a lot of popularity as one of the modes of communication these days to remain socially active. Not only do these social sites bridge the social boundaries but they also provide a common platform to communicate and socialise in the offline social set up with other individuals. Social researchers are now baffled at its impact on user's lives and their social life. Some fear that excessive use of Social Networking Sites might diminish human relationships and increase social isolation. Others opine that it will improve people's social skills via networking. The present study tries to find that whether the usage of Social Networking Sites will be 'friend' or 'foe' of social skills in the education and how the role of teacher comes in between to guide the students in this regard. The major findings of study were: (i) there exist significant relationship between Social Networking Sites usage and Social Skills of the pupil teachers. (ii) The different levels of Social Networking Sites usage viz. high, average and low were not contributing significant effect on the Social Skills of the pupil teachers. (iii) The different levels of Social Skills viz. high and average level of the pupil teachers were contributing more positively towards the usage of Social Networking Sites. However, at low level of the social skill of the pupil teachers, this relationship was not significant.

With our whole social lives now revolving online, some people seem to think that there is no longer a need for interacting or communicating with the society as World Wide Web provides more convenient mode of socialisation. The less- threatening social environment that Social Networking Sites offer compared

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to face-to-face interactions may make these sites particularly fascinating for individuals lacking friends or social circle. The emergence of Social Networking Sites (SNSs) simplified the whole process of social interaction and communication. Currently, there are hundreds of SNSs that can draw millions of people to connect on a common platform. Nearly all sites enable persons to avail pre-existing connections and initiate friendships between strangers. With a rush in the number of people who use or have access to the Internet, SNSs are considered a must by them to stay in touch with each other and to develop their social skills (Rajat, 2009).

Social Networking Sites (SNSs)

In the words of William (2009), *it is an online community of Internet users who want to communicate with other users about areas of mutual interest.* The term social network site is usually used to describe this phenomenon and Social Networking Sites also appear in public discourse, and both are often used interchangeably.

Boyd (2007) offers the following definition for today's Social Networking Sites: they include web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users within whom they share a connection, and view and traverse their list of connections and those made by others within their system. Similarly, a recent report by Hitwise an Experian Company (2007) states that: social networking websites are online communities of people who share interests and activities, or who are interested in exploring the interests and activities of others. They typically provide a variety of ways for users to interact, through chat, messaging, email.

Examples of SNSs include: Twitter, Friendster, MySpace, Facebook, Orkut and many others.

Reasons for the Rise of Online Social Networking

Ofcom (2008) discussed the following reasons for the rise of online social networking as under –

- the ability to form different networks with people who share such things as location, political views, aspirations, hobbies and so on.
- internet users want to freely create and share their own content without having to undergo that sometimes mundane task of setting up and managing their own websites.
- to express their views, ideology and moods with the internet world and to learn about the views, ideas and moods of others.
- creating any relationships that they choose.
- providing the motivation and pur-pose to engage in a medium which hitherto held little attraction.
- appeal to the inherent inquisitive-ness we have about other people and what they are doing with their lives.
- the desire to learn about and connect with others (whether we know them or not) can provide a lifeline to those who are isolated and disengaged from family, friends and communities.

- Open up the possibility of engaging with public services and organisations in a very different way, and have the potential to engage those who may currently find the public sector distant and impenetrable.

According to Goldner (2008); Raccanello (2011) and Pike (2011), Social Networking profiles present opportunities for imagining different relationships in the real world. There is a positive attitude toward SNS due to the opportunity of obtaining knowledge and the use of SNS as a social utility. As per the various research studies, the increased use of SNS among users' was associated with decreased self-esteem, happiness, satisfaction with life, and increased depression and loneliness.

A study conducted by Carnegie Mellon University concludes that Internet use leads to small but statistically significant increases in misery and loneliness and a decline in overall psychological well-being (Kraut et. al, 1998). Internet users will lose the savvy and skills and patience to conduct social relations in the corporeal world, and that the Internet will intensify the negative effect television has already had on our social skills (Weinstein and Weinstein, 1998).

Social Skills

A social skill is any skill facilitating interaction and communication with others. The process of learning such skills is called socialisation. Walker (1988) defines social skills as a set of competencies that (a) allow an individual to initiate and maintain positive social relationships, (b) contribute to peer acceptance and to a satisfactory school adjustment, and (c) allow an individual to cope effectively with the larger social environment.

Often we take our social skills for granted, without realising all the complicated skills we use when we interact with others. Socially acceptable learned behaviours are those that enable an individual to interact effectively with others and to avoid or escape negative social interactions with others (Gresham and Elliott, 1990). Thus Social Skills require that one should go along with other people in a desirable manner.

Major Categories of Social Skills

Gresham and Elliott (1990) have discussed the following major categories of Social Skills:

- communication,
- cooperation,
- assertion,
- responsibility,
- empathy,
- engagement,
- self-control

Variables that Influence Social Skills

There are many variables that determine acquisition of Social Skills such as demographic variables, home context, cultural diversity, educational barriers and individual disability. The variables that influence Social Skills' efficiency are:

- lack of opportunities in terms of social interaction,
- lack of knowledge about skills required for social interaction,
- lack of practice in social skills,
- lack of reinforcement for social skills,

- problem behaviour and
- maladjustment.

Relationship between Social Networking Sites Usage and Social Skills

According to Yang (2003); Silverman (2007); Kord (2008); Helou and Rahim (2010) and Swang (2011) community college students were frequent users of online social networking, more so for general purposes than for academic purposes. Social Networking Sites benefited college students by increasing their sense of belonging, thus placing online social networking as an important variable in the college persistence equation. In the past two to three years, the number of SNSs has increased dramatically. Today, millions of people around the world are actively using social networking sites, integrating their use into their daily lives.

An Educator's Role in Social Networking Sites Usage and Social Skills

In December 2011, the then IT minister Kapil Sibal expressed his serious concern over the usage of Social Networking Sites that can cause threat to national integration (*The Hindu*, 2011). Greenhow (2008) says as teachers, we always want to know where our students are coming from and what they're interested in so we can build on that in our teaching. By understanding how students may be positively using these networking technologies in their daily lives and where the unrecognised educational opportunities are, we can help make schools even more relevant, connected and meaningful to students.

Teachers and Social Networking Sites

For many teachers the use of Facebook and MySpace is seen as a valuable educational tool and an integral part of their private social interaction. However, the exponential growth in the use of Social Networking Sites by students and teachers alike has also presented new legal, ethical and professional challenges for teachers and school administrators. Teachers might argue that their Social Networking Sites are personal websites but they are ultimately very public spaces that leave an electronic trail that can have serious, albeit unintended, consequences for teachers who breach professional codes of conduct and education laws. Teachers face the risk of censured speech, professional misconduct and possible dismissal for posting inappropriate information including comments and pictures on these websites.

Teachers are vested by the public with trust and responsibility, together with an expectation that they will help prepare students for life in society in the broadest sense. As educators they have a professional image to uphold and how they conduct themselves online helps determine this image. As reported by the media, there have been instances of educators demonstrating professional misconduct while engaging in inappropriate dialogue about their schools and/or students or posting pictures and videos of themselves engaged in an inappropriate activity. Some educators feel that being online shields them from having their personal lives examined. But increasingly, how educators' online identities are too

often public and can cause serious repercussions *(Russo et.al, 2010).*

Emergence of the Problem

The present study tried to explore the relationship between Social Networking Sites usage and Social Skills of the pupil teachers. As the prospective teachers, they are going to be the future teachers, their knowledge about relationship between Social Networking Sites usage and social skills is needed to make the future students careful and to stay secure. They can be made safe from fake social identities and unlawful activities which may spoil their life while expanding their social life. It is ultimately be the responsibility of the teachers to guide the students about how to use Social Networking Sites for socialization without ignoring their need to explore the world. The basic reason for selecting the prospective pupil teachers were that they are would be teachers. These future teachers themselves are going through the technological transition phase of communication. Thus they are now in a position to understand the pros and cons of Social Networking Sites usage which may affect the future generation of students also.

Objectives of the Study

- To study the usage of Social Networking Sites and Social Skills of the pupil teachers at different levels i.e. high, average and low.
- To study whether there exists any relationship between Social Networking Sites and Social Skills of the pupil teachers.
- To study whether there exists any relationship between Social Networking Sites usage (being constant) and Social Skills (at high, average and low level) of the pupil teachers.
- To study whether there exists any relationship between Social Skills (being constant) and Social Networking Sites usage (at high, average and low level) of the pupil teachers.

Hypothesis

Ho.1: There exists no significant relationship between Social Networking Sites usage and Social Skills of the pupil teachers.

- **Ho.1 (a):** There exists no significant relationship between Social Networking Sites usage (being constant) and Social Skills (at high, average and low level) of the pupil teachers.
- **Ho.1 (b):** There exists no significant relationship between Social Skills (being constant) and Social Network-ing Sites usage (at high, average and low level) of the pupil teachers.

Delimitation of the Study

The present study was confined to the pupil teachers of selected college of education of Union Territory of Chandigarh.

Tools Used

- Social Networking Sites usage Questionnaire (SNSQ) developed and validated by the investigators themselves with the objective of getting appropriate information about the usage of social networking

sites among pupil teachers. The questionnaire consists of 21 items. The questionnaire was constructed after studying the available literature on social networking sites usage. The face validity and content validity of the questionnaire were ensured by taking experts opinion. The response of each respondent was scored as per the five point scale. The scoring for the positive items on five point scale was 5, 4,3,2,1 and for negative items it was 1,2,3,4 and 5. The value of obtained chi-square for each item was used as discrimination value of each item for reliability purpose. Based on the discrimination value, all the items were found to be significant at 0.01 level of significance. To estimate overall reliability of the questionnaire, Spearman-Brown Prophecy formula was used. The split-half reliability coefficient of SNSQ was found to be 0.71 and thus the questionnaire was presumed to be reliable for the present study.

- Another tool of the study was Social Skills Questionnaire (SSQ) which was adapted from Social Skills Rating System (SSRS) by Gresham and Elliot (1990) and validated by the investigators themselves. The objective of the Social Skills questionnaire was to seek opinion regarding the Social Skills through the simple and straight statements. In order to list the items around the social skills; a theoretical background was borrowed from Gresham and Elliott (1990). The social skills questionnaire developed by Gresham and Elliott (1990) was concerned with three age groups. As the present study was not focused on these three age groups, only the relevant items were taken from the Social Skills questionnaire and where necessary, modified version of items was used. For Social Skills questionnaire, some items were modified (i.e. Item no.'s - 3, 6, 7, 10, 11, 15, 16, 22, 27, 34, 36 and 39) and rest of the items were taken as it is from the original SSQ questionnaire (grades 7 to12) by Gresham and Elliott (1990). The investigators also interviewed many professors from colleges of education to have an in-depth knowledge of their opinions towards social skills. Beside this the items were constructed on a 5-point rating scale type instead of 3-point rating scale as used in the original version of Social Skills questionnaire of Gresham and Elliott (1990). Based on the discrimination value, all the items were found to be significant at 0.01 level of significance. To estimate reliability, Spearman-Brown Prophecy formula was used. The split half reliability coefficient of SSQ was found to be 0.76 and thus the questionnaire was presumed to be reliable for the present study. The face validity and content validity of the questionnaire were ensured by taking experts opinion.

Sample and Design of the Study

A random sampling method was used to select the sample. Out of the selected college of education, the list of 300

pupil teachers taken as population was entered into spreadsheet and random number was assigned to each pupil teacher then it was sorted by random number. The first n pupil teachers on list consist of random sample of size n on our population. Thus, sample of 102 pupil teachers was drawn randomly from the selected educational institution of the Union Territory of Chandigarh i.e., Government College of Education. The students were compared with regard to the criteria that they were all doing B.Ed. course.

Procedure of Data Collection

All the pupil teachers from the selected educational institution were given the questionnaire on Social Networking Sites usage and Social Skills. The questionnaires were then collected from the pupil teachers after they had filled it up. The questionnaires were scored according to the prescribed scoring keys and the data thus obtained was subjected to statistical analysis.

Statistical Techniques

- Means and Standard Deviations were worked out to study the general nature of sample.
- Karl Pearson's coefficient of correlation was calculated to find out the relationship between the Social Networking Sites and Social Skills usage of the pupil teachers.

Analysis and Interpretation of Data

Frequency Polygons of Scores on Social Networking Sites Usage and Social Skills

The scores of Social Networking Sites usage of pupil teachers in relation to Social Skills were depicted through frequency polygon in order to compare the nature of distributions. The frequencies were converted into percentages as shown in the Table 1. Inverted cumulative frequencies (Inv. cum. f.) and their cumulative percentages (Inv. cum. per. f.) were also obtained and depicted simultaneously.

Table 1

Total Scores of Social Networking Sites Usage and Social Skills of the Pupil Teachers

			Social Networking Sites Usage				*Social Skills*			
Class Interval	*Upper Limit*	*Mid Point*	*f*	*Per. f*	*Inv. cum.f.*	*Inv. cum. per.f.*	*f*	*Per. f*	*Inv. cum.f.*	*Inv. cum. per.f.*
170-190	190	185	2	1.96	2	1.96	-	-	-	-
150-170	180	175	3	2.94	5	4.90	-	-	-	-
130-150	170	165	16	15.69	21	20.58	-	-	-	-
110-130	160	155	15	14.71	36	35.29	-	-	-	-
90-110	150	145	12	11.765	48	47.05	3	2.94	3	2.9
70-90	140	135	22	21.57	70	68.62	16	15.69	19	18.6
			N= 102	N=100			N=102	N= 100		

Frequency polygons were plotted with the exact mid-point of class intervals on the "x-axis" and corresponding percentage frequencies on the "y-axis" as presented in Figure 1. It may be observed from Figure 1:

- **Social Networking Sites Usage:** The frequency polygon drawn on the scores of Social Networking Sites usage was a unimodal curve. The modal value of the highest peak point of the distribution falls on the scores of 140. The coefficient of skewness and kurtosis of Social Networking Sites usage of the pupil teachers was 0.147 and 0.646 respectively.
- **Social Skills:** The frequency polygon drawn on the scores of Social Skills was also a unimodal curve. The modal value of the distribution falls on the score of 120. The coefficient of skewness and kurtosis of Social Skills of the pupil teachers was (–) 1.33 and 4.33 respectively.

Inverted Ogives of Scores for Social Networking Sites Usage and Social Skills

Inverted percentage cumulative curves were drawn with the upper limit of class interval on the x-axis and the corresponding cumulative percentage frequencies on the y-axis. The inverted ogives thus prepared have been shown on the graph in Figure 2. It may be observed that from the Figure 2 that:

- For Social Networking Sites Usage: In the Social Networking Sites usage, 75% of the pupil teachers attained more than 140 scores. About 50% of pupil teachers attained equal or more than 160 scores and 25% of the pupil teachers attained more than 175 scores.
- For Social Skills: In the social skills, 75% of the pupil teachers attained more than 130 scores. About 50% of pupil teachers attained equal of 140 scores and 25% of the pupil teachers' attained equal or more than 148 scores.

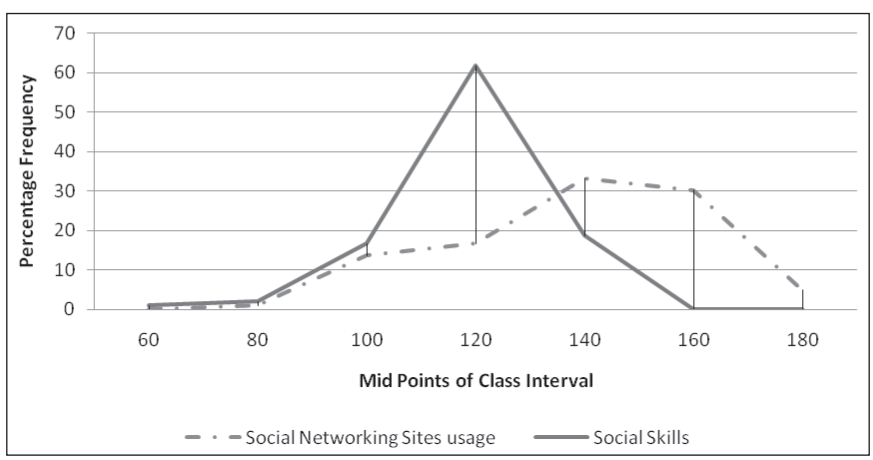

Figure 1 : *Frequency polygon showing the distributions of scores of Social Networking Sites usage and Social Skills of the pupil teachers.*

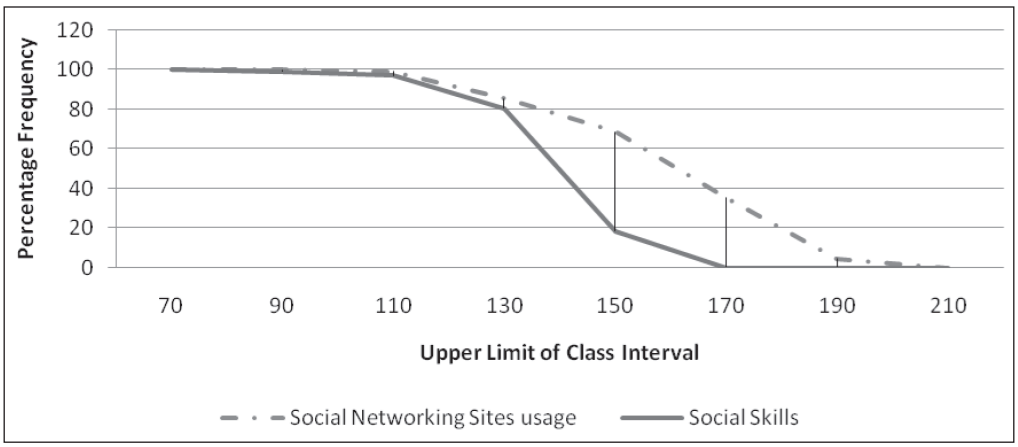

Figure 2 : *Inverted Ogives showing distributions of scores of Social Networking Sites usage and Social Skills of the pupil teachers*

Mean Scores for Social Networking Sites Usage and Social Skills

The Mean and Standard Deviation of the scores for Social Networking Sites and Social Skills were computed and have been recorded in the following Table 2. The table reveals that the mean scores for Social Networking Sites usage of the pupil teachers were higher than their Social Skills.

Table 2: Mean Scores of the Pupil Teachers in Social Networking Sites Usage and Social Skills

Social Networking Sites usage	*Social Skills*
MEAN=139.22 N=102 S.D.=21.44	MEAN=119.62 N=102 S.D.=18.33

Correlation between Social Networking Sites Usage and Social Skills of Pupil Teachers

On the basis of the scores of Social Networking Sites usage and Social Skills, the pupil teachers were further divided at three levels i.e. high, average and low separately. The formation of three levels was in accordance with Kelly's strategy as discussed here:

- All the pupil teachers scoring sheets were arranged in the descending order on the basis of their total scores obtained in both the variables i.e. Social Networking Sites usage and Social Skills.
- The first 27% cases formed the group of high level and the last 27% cases formed the lower group in both the variables i.e. Social Networking Sites usage and Social Skills.
- The remaining 46% cases comprised the group of average level in both the variables i.e. Social Networking Sites usage and Social Skills.

Here, high (H)level of Social Networking Sites usage means its more use; average (A) means its moderate use and low (L) means its minimum use by the pupil teachers. In Social Skills,

high (H) level means good social skills whereas average (A) means fair social skills and low (L) means poor social skills of the pupil teachers.

To calculate inter correlation, the raw scores obtained by the pupil teachers were taken by the investigators and the relationship between the variables was calculated as per the Karl Pearson's coefficient of correlation formula (Garrett and Woodworth, 2008) as shown in Table 3.

Findings

- Table 3 reveals that the coefficient of correlation between Social Networking Sites usage and Social Skills of the pupil teachers has come out to be 0.36 which is significant at 0.01 level of confidence. There is positive correlation between Social Networking Sites usage and Social Skills of the pupil teachers. Positive correlation implies that if the scores of the pupil teachers in Social Networking Sites usage are high then their corresponding scores of social skills are also high and *vice versa*. Since the obtained value is not close to + 1.0, the relationship is not so strong. Even though, the means of the two groups were significantly different. Thus, the hypothesis Ho.1 that there exists no significant relationship between Social Networking Sites usage and Social Skills of the pupil teachers was rejected at the specified level.
- Table 3 reveals that the correlation coefficient between the scores of Social Networking Sites usage's level (at high, average and low) and Social Skills (being constant) were 0.24, (-)0.026 and 0.288 respectively. These values were not significant even at 0.05 level of confidence. This suggested that the mean of their respective groups were not significantly different. Thus, the hypothesis Ho.1 (a) that there exists no significant relationship between Social Networking Sites

Table 3

Correlation Values between Social Networking Sites Usage and Social Skills of the Pupil Teachers

S. No.	*Variables*	*N*	*Combined Mean*	*Coefficient of Correlation*	*Significance*
1.	SNS and SS	102	129.426	0.36	S**
2.	SNS and SS				
	SNSH and SSH	28	145.517	0.24	n.s.
	SNSA and SS	46	130.043	-0.026	n.s.
	SNSL and SS	28	111.553	0.288	n.s.
3.	SS and SNS				
	SSH and SNS	28	139.282	0.48	S**
	SSA and SNS	46	129.771	0.37	S**
	SSL and SNS	28	117.714	0.27	n.s.

where S** - Significant at 0.01 level of confidence
n.s. – Not Significant at 0.05 level of confidence
SNS - Social Networking Sites being constant
SS - Social Skills being constant

usage (being constant) and Social Skills (at high, average and low level) of the pupil teachers was accepted at the specified level.

- Table 3 shows that the correlation coefficient between the scores of Social Skills (at high and average level) and Social Networking Sites usage (being constant) were 0.48 and 0.37 respectively. Both the values were significant at 0.01 level of confidence. Thus, there is a positive correlation between Social Skills (at high and average level) and Social Networking Sites usage (being constant). But, since the value is not close to + 1.0, the relationship is not strong. This however suggested that the means of their respective groups were significantly different. Thus, the hypothesis Ho.1 (b) that there exists no significant relationship between Social Skills (being constant) and Social Networking Sites usage (at high and average level) of the pupil teachers was rejected at the specified level. But the correlation coefficient between the scores of Social Skills at low level and Social Networking Sites usage scores (being constant) was 0.27 which was not significant even at the 0.05 level of significance. This suggested that the means of this particular group were not significantly different. Thus, the hypothesis Ho.1 (b) that there exists no significant relationship between Social Skills (being constant) and Social Networking Sites usage (at low level) of the pupil teachers was accepted at the specified level.

Discussion of the Results

The analysis of data of the present study led to the rejection of hypothesis Ho.1 that there exist no significant relationship between social networking sites usage and social skills of the pupil teachers. This suggests that use of the Social Networking Sites have an effect on the Social Skills of the pupil teachers. The results seemed to support the research literature, which was reviewed and it was observed from Raccanello's (2011) study that online social networking texts are superficial and embellished but also representative of identity, and they influence prejudgements of others online; students manufacture an online identity to connect with others and social networking enhances envisioning real-world encounters but is also a significant and powerful influence on imagining new and different relationships.

The results based on Ho.1 (a) was partially consistent with the studies conducted by Yang (2003); Silverman (2007); Goldner (2008); Cachia (2008); Helou and Rahim (2010), Swang (2011); Raccanello (2011); Pike (2011) and Hampton (2011); who painted a rich and complex picture of the role that digital technology plays in people's social worlds. When further analysis of the present study was done by keeping the Social skills as constant, it was found that social networking sites usage was not affecting the social skills i.e. Social Skills were not getting better due to usage of Social Networking Sites usage. Grant (2011) indicated no significant relationship between Computer Mediated Communication usage and social skills for these students.

However, hypotheses Ho.1 (b) was consistent with the findings of the researches conducted by Dam- Baggen and Kraaimat (1986); Ingman (1999); Kolb and Hanley –Maxwell (2003) and Chen's (2006) which reflected that the Social Skills training resulted in a decrease in social anxiety and an increase in social skills. A study by Wong et. al (2011) suggested that there is a significant difference between the intensity of SNS use and the attitude towards SNS. There is a positive attitude toward SNS as the opportunity of obtaining knowledge and the use of SNS as a social utility. Thus, in the present study when Social Networking Sites usage was kept constant, Social Skills influenced Social Networking Sites usage of the pupil teachers but vice – versa was not found there.

These findings were further supported by Walz (2009) suggest that the use of Social Networking Sites may benefit college students by increasing their sense of belonging; beneficial social tools for all individuals; increases the proficiency in offline social and communicative behaviours. Another study by Krishnan (2011) illustrated that networking websites acted as inclusive channels for social interaction and as online companions to users' offline social structures. The results by Olson (2011) indicated that community college students were frequent users of online social networking, more so for general purposes than for academic purposes.

Educational Implications of the Study

Though the present study was done on pupil teachers, on the basis of results obtained from this study, we can sensitise the teachers, administrators, educational institutions, students and parents about the integration of Social Networking Sites usage and Social Skills in education on the following counts:

1. The proper usage of Social Networ-king Sites can provide networking communication among students, peers, parents and teachers.
2. Innovative and creative ideas can be exchanged.
3. Guidance on vocational as well as on personal aspect of the student can be provided by the teachers and counsellors.
4. One can keep in touch with alumni and can get professional help from them.
5. In teaching-learning process innovative strategies or thoughts from time to time can be shared with other teachers.
6. Awareness on critical issues like socio-economic, political, cultural etc. can be taken up by the teachers, students and administrators.
7. Teaching and evaluation can be made strong by using feedback through SNS usage.
8. Students can develop their comm-unication skills.
9. It can become an educational tool for the teachers to assess the progress of the students.
10. It can provide radical attitude formation among students on various socio-economic, political and cultural issues.
11. It can become a strong support system for needy students.
12. A channel for seeking information from experts.

13. Administrators can respond to problems arising in the field of education.
14. Time management skills can be enhanced by utilising SNS with considerable thought.

Crux

The recent havoc created by the Social Networking Sites and SMSs in India among North Eastern people put everyone in a surprise to what to do with the irregularities or irresponsibility of these sites. Not only they endangered social life of an individual but they can throw a nation into an imaginary war of thoughts. The intention of using Social Networking Sites was initially based on socialisation and interaction purpose, now holds the capability of derailing the whole world and life of an individual. The dilemma is how to hook this foe (SNS usage) which we in our total amusement considered as a friend. For teachers, the task is more challenging as they have to guide the students where the usage of Social Networking Sites can remain as a friend to the development of their social skills and where it can act fatal in term of foe. For this they themselves must know where the red line is which no one should cross.

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A Study on Growth and Development of Primary Teacher Education in Assam

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Abstract

This study was conducted to find out the growth and development of teacher education at primary level in Assam from 1947 to 2007 in terms of status, number of training institutes, number of trained and untrained teachers, teacher enrolment in teacher training institutes and also initiatives taken by the State in the recent years for improvement of teacher training. Data were obtained from various official records, documentary sources, departmental reports and booklets prepared/published by the Directorate of Elementary and Secondary Educations/DPEP/SCERT office as well as interviews from concerned officials. It was found that in Assam, the percentage of trained teachers rose steadily from 23.03% to 41% and subsequently to 73.11% in 1951, 1961, 1971 respectively. However, the figure declined to 68% in 1981. Responding to this alarming trend, the State has initiated various policies and interventions for qualitative improvement of teacher education since 1986.

Introduction

Assam came under the British rule much later than the rest of India. During the British period, there was very slow progress in the growth of Teacher Education although importance was entrusted on regular instruction for training of Teachers which started first during the British period. The Despatch of 1854 or the Wood's Despatch of 1854, passed by the East India Company gave a tremendous impetus to all aspects and sections of education in the country. It was the curtain raiser in the area of growth and development of teacher education, where, for the first time, recommendation was made for training of teachers. It recommended the extension and improvement of the Monitorial system which was already

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prevalent in the country for a long time. The Despatch also recommended stipends for promising pupil-teachers and some payment to the masters for the instruction of pupil-teachers during out of school hours.

Another important landmark in the history of teacher education was the report submitted by Hunter Commission in1882. The first recommendations for the establishment of Normal schools in the country with courses suitable for teachers of the school level from rural areas all over the country. A special system which also sprung up in Bengal and Assam in 1885-86 was that of the 'Guru System'. According to this system, the headmasters of middle vernacular schools, who themselves had undergone the prescribed course of training in normal schools, were to try to impart instruction to gurus in neighbouring Pathashalas. Accordingly, in the first decade of 20th century, normal schools came into existence. Subsequently, a few guru training schools were also established. In Assam, missionaries took the lead in the establishment of training schools at Nagaon, Shillong and Tura (in undivided Assam, Shillong and Tura now included in Meghalaya state). After 1884, the provincial government accepted the principle of establishing one Normal school in each district. But by 1888-89, only six such departmental schools came to be established one each in the districts of Kamrup, Sivasagar, Lakhimpur, Khasi and Jayantia Hills and two in Darrang. There were altogether 173 trainees in these schools and the number decreased to127 in 1901-02. The smallest number of trainees was at the Sivasagar School. In the meantime the Government also opened 16 teacher-training classes attached to MV and ME schools to train Gurus and Primary school teachers. But the enrolment of trainees in these classes were not encouraging and so the government had decided to abolish these classes with effect from 01-10-1903 from all the government training schools and the Guru training classes with the exception of the first grade schools in the districts of Kamrup and the Khasi and Jayantia Hills (at Shillong). It was proposed that the specially selected candidates would be trained in the Middle and High schools partly as pupils and partly as monitors. At the end of such apprenticeship, they would be appointed village schoolmasters in primary and secondary schools after the decision of the government to rationalise the system of teachers' training by abolishing a number of training schools. The missionaries also closed down two of other three training schools due to financial difficulties and poor attendance.

However, with the Government of India adopting teacher training as a regular policy in 1904, the Government of Assam had to revise their earlier decision in the matter of maintaining only a small number of training schools. In 1905, the Government established 2 Normal schools, one each at Jorhat and Silchar, for the purpose of providing training to MV and ME school teachers. Special classes were also attached to these schools for the training of village schoolmasters. By 1920, there were altogether 11 Normal schools, 7 government, 2 government aided and 2 other government aided women's Normal

schools. But the number decreased to 7 in 1931 due to the closure of the schools at Jorhat, Jowai, Tura and Silchar. The grounds for closing down the schools were stated as financial difficulties arising out of the worldwide economic depression prevailing at the time. However, in1933, the Director Public Instructor (DPI), Assam reopened these schools considering the importance of teacher's role in social development.

It has already been stated that the missionaries took the lead in the establishment of teacher's training schools. Two such schools were established in Silchar and Nagaon for the purpose of providing training to women teachers. Before 1936, there were no teacher training agencies/ institutions. Though general progress was made in the field of primary and secondary education, the expansion of education was not accompanied by a corresponding increase in the facilities for the training of teachers. Thus, during the period from 1942 to1945, the number of teachers at every stage (primary, middle, and secondary) increased but the number of trained teachers diminished. The decline in the percentage of trained teachers was mainly due to the appointment of untrained teachers in non-governmental schools and inadequacy of facilities for the training of low grade teachers.

Objectives of the study

The present investigation was conducted with the following objectives:

1. to study the growth and development of Teacher Education in Assam from 1947 to 2007 in terms of (a) number of school (b) student enrolment(c) trained and untrained teachers (d) number of teacher training institutes at primary level.
2. to find out the initiatives taken by the state in the recent years for the improvement of teacher education.

Methodology

Descriptive survey method was followed in conducting the present study. In order to give proper treatment to the collected Data and information both qualitative and quantitative analysis has been adopted. In quantitative approach data are presented by the process of tabulation and computation of percentages. Graphical representation of the data was made wherever required. Trend/Regression lines were also used for analysis of data.

Findings and Discussions

(A) Growth and development of teacher education at the primary level

- Since Independence, primary education system in Assam has expanded tremendously, as against 7574 schools in 1947, it had 31,703 primary schools in 1996 (a fourfold increase). Subsequently in 2007, the figure climbed to 85,881schools (an eleven fold increase compared to the 1947 figures). Though general progress was made in the field of primary education, the expansion of education was not accompanied by a corresponding increase in the facilities for the training of teachers at primary level.
- With the increase in enrolment, the number of teachers has also grown up considerably. Against 10,015 teachers in 1947 the number of

school teachers has gone up to 83,712 in 1996 and the number of teachers at primary level stood at 85,316 in 2007

- In 1946-1947, provision was made for training of teachers in basic education. In 1948, six BTCs were established by Govt of Assam at Kamrup (Mirza), Nagaon (Raha), Jorhat (Titabar), Sonitpur (Sootea), Cachar (Udarbond) and Shillong (erstwhile capital of Assam)
- All the Primary schools which were recognised under the Assam Primary Education Act 1947 were recognised as Basic schools under the Assam Basic Education Act 1954. As a result of this Basic Education Act the Govt had to make provision of basic training for all primary school teachers and made a plan to train up the staff member of the Guru training school in Basic education.
- In 1954-55, all Guru Training schools were equipped with basic trained staff. In 1955, some Guru Training Centres were abolished and rest were converted into Junior Basic Training Centres In 1962, eighteen more BTCs were taken by the government.

Table 1

Growth in number of Schools, Enrolment and number of Teachers (trained and untrained) from 1951-1991

Year	*No of Institutions*	*Enrolment*	*Total Teachers*	*Trained Teachers*	*Untrained Teachers*
1951	7574	626282	17303	3985	13318
1952	11466	660514	17946	4707	13239
1953	12233	705474	19073	5395	13678
1954	12689	742373	20578	5816	14762
1955	12610	762851	21250	6478	14772
1956	13561	862502	20578	7130	13448
1957	13223	845959	21760	7929	13831
1958	13593	890449	23062	8466	14596
1959	15015	980250	24924	9270	15654
1960	15979	1046530	26354	10365	15989
1961	16961	1136317	27980	11522	16458
1962	17942	1213434	29588	12444	17144
1963	18861	1299067	32012	14181	17831
1964	18953	1337212	32511	16454	16057
1965	18928	1348627	32875	18673	14202
1966	19429	1373692	33539	20075	13482
1967	19611	1411640	34983	21325	13658

1968	19876	1454676	35232	22671	12561
1969	19889	1498717	35636	24036	11600
1970	17723	1359098	32961	23961	9000
1971	18040	1398796	32794	23977	8817
1972	19213	1471336	35442	25306	10136
1973	19595	1487931	40515	26110	14413
1974	19745	1500794	42936	26932	16004
1975	20248	1510873	44544	26655	17889
1976	20251	1540463	44512	27397	17115
1977	21350	1537375	45981	27931	18050
1978	21603	1564974	46908	31071	15837
1979	21723	1624759	47142	31461	15681
1980	21723	1692083	47142	32169	14973
1981	21729	1751125	48471	33065	15406
1982	24384	1921259	51146	34437	16709
1983	25076	2026061	51828	34818	17010
1984	25930	2232740	54655	35852	18803
1985	25900	2324916	55796	36514	19282
1986	25873	2310202	55913	35152	20761
1987	26670	2642426	60007	36588	23419
1988	27287	2634753	62134	39688	23419
1989	27693	2658169	63042	41238	21804
1990	27712	2726812	63373	41516	21804
1991	28323	2756232	65801	43111	22690

Source: Statistics Branch, Directorate of Secondary Education, Assam

- In 1954-55, total number of teachers in the state engaged in 12,610 primary schools was 21,250 with a total number of 76, 2851 pupils enrolled. The percentage of trained teachers rose steadily from 23.03% to 41% and subsequently to 73.11% in 1951, 1961 and 1971 respectively. However, the figure declined to 68% in 1981 and again during 1984-85 it becomes 65.44%. This decline in the percentage of trained teachers was mainly due to the appointed of untrained teachers and inadequacy of facilities for the training of low grade teachers. in 1961-'62 also, the minimum qualification required for the post of teacher of primary school was a Middle School Pass certificate. From the Annual Report on the Progress of Education in Assam during 1961-'62, it is seen that during this period, a very large

number of non-Matriculates were still engaged in teaching posts in all the stages of school education. The residual effects of the phenomenon of under qualified teachers are likely to have persisted up to the 1980's or so. Meanwhile, the minimum qualification for primary school teachers was raised to a Pass in the Secondary Examination.

- Professional training is not a prerequisite for entering the job of a teacher at any level of School education in Assam, although some weightage is given for pre-service training at the time of selection of teachers. This has lead over the years to the phenomenon of recruitment of batches of untrained persons as teachers. Pre-service training along with in-service training for Middle school teachers was introduced in the 1970s in the Normal schools. But the arrangement was discontinued sometimes in 1978-79 because of problems relating to jobs for such trained teachers. As a result, Primary, and Middle schools too are suffering from lack of trained teachers
- Till 1988, there were twenty four BTCs, but with the implementation of NPE in 1986, the scheme of up gradation of BTCs to DIETs was adopted in Assam.Therefore, in the first phase, six DIETs were established in 1988, by upgrading five existing Basic Training Centres and one Senior Basic Training Centre. In the second and third phases, twelve more DIETs have been established in the state, bringing the total number of DIETs to eighteen and the remaining nineteen BTCs too are still functioning.
- Initially the Basic Training Certificate (BTC) examination was conducted by the Basic Education Board, which later transferred to the office of the DPI under the direct control of joint Director. Again, when a separate Directorate was established for elementary education, the BTCs came under the direct control of the Directorate of Elementary Education. Though SCERT was set up in 1985, yet the control of BTCs came under it as late as 1991.
- In the context of teacher education programme, at present SCERT Assam has been conducting Junior Basic Training programme of 1 year, 8 months', 6 months' and 3 months' durations from time to time for in-service teachers of primary schools through DIETs, BTCs, 7 Normal schools and 1 PPTC.
- A total of 40,980 teachers so far have been trained through the Junior Basic Training (JBT) course from 1991-2007. Evaluation results of trainees coming out of the training courses conducted by sampled TTIs is satisfactory during the period 1997 to 2004. The DIETs sampled reported pass percentage ranging from 76% to 95%. Similarly, BTCs and NSs sampled reported pass percentage varying from 76% to 95% and 84% to 95% respectively. However, if we analyse these outcomes in a qualitative aspect,

it is seen that during the period 1997-2004, only 12.74% trainees secured Ist Div. marks.

(B) Besides the training of teachers through teacher training institutes various policies have been implemented and number of interventions introduced for qualitative improvement of teacher education programme since 1986.

- One of the most important centrally sponsored schemes undertaken as a follow-up of Universal Elementary Education (UEE), 1986-the Operation Black Board has been implemented with good success.
- In respect of training of teachers, the programme of Mass Orientation of School Teachers (PMOST) was implemented during 1986-89.During this period, about 55,000 primary, upper primary and secondary school teachers were oriented about the new approach to education as enunciated in NEP 1986.
- PMOST was re-launched as a Special Orientation for Primary School Teachers (SOPT) during 1993-94 and continued during 1995-96. About 35,000 primary school teachers oriented about child centred education, Minimum level of learning and the use of teaching learning materials.
- Since the last three years before the advent of the new millennium, SCERT Assam has evolved a new strategy for training of teachers by the formation of State Level Resource Group (SLRG), District level Resource Group (DLRG) and Block Level Resource Group (BLRG). With the help of this cascade strategy, the SCERT could train up a large number of teachers under special orientation programmes for primary school teachers (SOPT) within a short period of time
- One of the strategies for increasing efficiency and effectiveness of school system was the introduction of a two years' duration PSTE (pre-service teacher education) course in 17 DIETs under SCERT, Assam in 2000-2001.
- Establishment of 18 DIETs is an extremely important step taken in the field of teacher education for improvement of quality of Elementary Education as envisaged in the National Policy on Education and Programme of Action, 1986.
- DPEP, a flagship project of the Government of India, launched in1994 for quality improvement of teachers through training as an effective national strategy to pursue the Education For All objectives.
- Strengthening of SCERT: SCERT Assam, had suffered long time neglect got strengthened under Centrally Sponsored Scheme (CSS) in relation to infrastructures, staff development and programme component.
- SCERT Assam conducted a few Mass Teacher Training (MTT) programmes using cascade method of training covering about 81,000 primary teachers during March-April 2003.

- Another MTT for introduction of English in *Ka-Shreni* and English at the lower primary level was conducted by SCERT, Assam using cascade method of training covering 30,499 primary school teachers of the state during 2007-08.
- Besides in addition to the above SCERT Assam extends cooperation as Resource person to various institutions and NGO's in organising short term in-service teacher training programme as a part of their extension service programme.
- The quality education envisaged in the scheme for UEE by and large depends on the development of professionalism in education. It is therefore, the Government of Assam has arranged a variety of training programmes for growth of professional competence among the primary teachers. In addition to JBT course short-term training programme of altogether 20 days duration in a year on different school subjects, new trend in education, innovative practices, TLM preparation, micro teaching skill, action research, school readiness, community mobilisation etc. were also organised under the aegis of SSA with the help of field level functionaries such as ABRCC, CRCC, RT etc. As per SSA norms, all the primary school teachers have to undergo 20 days training programmes in an academic year.
- Another intervention for enhancing professional competence of primary school teachers was the conduction of 'Certificate in Primary Education (CPE)' programme under IGNOU through distance made package for untrained teachers.950 prim-ary teachers were trained through CPE in the year 2003 in 10 DIETs. A total number 0f 4000 primary teachers were trained up in 2007-08 through distance mode by IGNOU for which 20 centres had been activated in DIETs and DRCs in Assam. The entire cost of training programme was borne by SSA, Assam.
- Distance Education Programme (DEP), an integral component of SSA is another major intervention for strengthening professionalism among the teachers and other educational practitioners through distance mode of learning. DEP-SSA was launched on 1st July 2003. It aims at providing need-based local specific in-service training to teachers, teacher educators and other practitioners focusing on review and monitoring of SSA interventions through teleconferencing. Production of audio visual programmes and community training through multimedia approach under this project, a self-learning material named 'Prayash' an integrated Education for Disabled was also developed for teachers and Teacher educators.

Present Status of Teacher Education in Assam

At present, the state has the following TTIs with intake capacity for the training of teachers at primary level.

Table 4.6
No. of TTIs and intake capacity since independence till present

Sl. No.	*Institution/Organisation*	*No. of Instt.*	*Level*	*Intake capacity*
1	Basic Training Centres (BTCs) Established since 1948	19	Primary (In-service)	950
2	Pre-Primary Teacher Training Centre Established since 1964	1	Initially Pre-primary (Pre-service and In-service) but now Primary (In-Service)	50
3	Normal Schools Established since 1906	7	Initially Primary (In-service), now Elementary (In-service)	400
4	DIETs Established since 1989	18	Both Primary and Elementary (In-service)	900

Conclusion

After the attainment of independence, the national government accepted basic education as the national pattern of Primary Education in India and declared that in accordance with the Article 45 of the Indian Constitution, the government would provide for free and compulsory primary education of children of the age group of 6-14 years. In pursuance with the Directive Principles of the Constitution, all the states have introduced free primary education in the age group of 6-11 years. It is an admitted fact that education plays a vital role in national reconstruction. Success of democracy to a great extent depends upon the diffusion of light of knowledge among the masses. In case of Assam, however, the progress of primary education is very much discouraging. Though the latest figures indicate some progress in case of literacy of the sexes, yet this progress is far from satisfactory. This is due to the reason that a large majority of our primary school teachers lack education and training because training is not a prerequisite for entering at any level of school education in Assam. Though teacher training in the country has a long history of more than a century and a half, where we stand today is very disturbing in that teacher training programmes have not responded to the changing scenario in the field of primary education. To bring about a sustainable improvement in the quality and management of Primary Education in the country, continuing education of teachers, teacher educators and other personnel associated with it is very essential.

Over the years, several innovative steps and contributions of state and national level organisations towards revamping teacher education have been appreciable. It has been observed that training organisations have hardly been developed any mechanism for monitoring and evaluation of training quality on a continuous basis. If some kind of monitoring is undertaken, it is with regard to achievement of targets in terms of number of teachers and resource persons trained or training material supplied to the participant.

Training activity, therefore, in many a case has become a number driven exercise while the quality of training has taken a back seat.

The long awaited tool for drastic social change 'Education for all' has now been made a fundamental right by an act of parliament. In spite of education being a state subject, the proactive role played by the MHRD through its Department of School Education and Literacy, has taken up the responsibility of developing and enforcing standard for teacher education in the country. However, the state government as well as local authorities would provide training facilities for teachers. It has been made mandatory for all untrained teachers to acquire prescribed qualification within five years and the recommended teacher-pupil ratio is 1:30 for primary level school. It may be concluded on a positive note by hoping that the preparation and up-gradation of human resources in any field requires a long term and sustained effort. Hence, a strategic vision towards quality teacher education is essential to transform teacher education as a strategy in itself.

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