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CONTENTS

EDITOR'S NOTE

Law and Judiciary have significant role in all the sectors including education. However, until not so long ago in education, law has played its role mostly in relation to cases regarding service matters of teachers and cases of school managements against teachers. But now with the implementation of Right of Children to Free and Compulsory Education (RTE) Act 2009, the role of lawyers has suddenly become very important in education. Not only this, the need to orient them on various aspects of education is also being felt. On this emerging concern, Ashok Agarwal delivered a lecture entitled 'Role of Lawyers in Education', for one of the memorial lecture series organised by the NCERT. The present issue includes this lecture in the form of an article with the purpose of reaching to large number of stakeholders to initiate a dialogue on this issue as its importance is being strongly visualised for the future.

Further, with regard to elementary education which comes under RTE Act 2009, articles contributed by Poonam and Sheela Sangwan, Vishal D Pajankar and Pranali P, Ranjana Bhatia, Sunitah Susan Jose and P.J. Poulose, which are included in this issue, highlight various related concerns such as inclusive education, problems of education of Scheduled Castes population, aggression in children, cooperative learning and social development in elementary classroom.

A series of engagement with the concern related to secondary education is reflected in research articles contributed by Kuntala Patra and Arundhati Mech, Laxmidhar Behera and B. N Panda, Anil Kumar Nautiyal and Prabha Negi. These research articles are based on studies conducted to explain the relation between school environment and mathematics achievement, personality pattern and achievement of ST students in relation to gender and type of institutions, and assessment of the creativity in adolescents. These articles may provide a forum for dialogues and research in these areas

as well as in other related areas. An article by Anubhuti Yadav explains the need and challenges to include 'media studies' as a subject in school curriculum. For any stage of school education, teacher is a crucial factor but if teacher is under stress, what strategies need to be adopted to overcome his/her stress? An article by A. Sudharma and Lekshmi V. deals with the issue of 'Teaching through Stress Management and Stress Proofing'.

This issue also includes an article contributed by P. Adinarayana Reddy, D. Uma Devi and E. Mahadeva Reddy on the programme evaluation aspect of Continuing Education Programme in Puducherry. The findings of this evaluation clearly indicate the need for improvement in the delivery mechanism and also in concern areas.

The issue concludes with a book review by Kirti Kapoor, and a reportage by R. Srinivasan which tries to find out the answer to the issues of related need and rationale of teaching economics in India.

Academic Editor
JIE

Role of Lawyers in Education*

ASHOK AGARWAL**

Abstract

Until not so long ago, lawyers had little or no role in school education, except perhaps in relation to cases regarding service matters of teachers and cases of school managements against teachers, etc. The phenomenon of voluntary action by lawyers, acting on behalf of children too poor to afford either private schooling or lawyers, is a fairly recent trend, perhaps not more than 10 to 15 years old. However, as soon as education comes to be defined as a right of the child, the importance of lawyers in completing the circuit that will ensure the right to education becomes inevitable.

This lecture will trace the movement for defending the right to education from the advent of PILs to the present, before discussing some issues that can and have emerged in the context of right to education in schools. Some of these relate to—denial of admission in government schools; cruelty against children in the name of private school admissions; lack of basic amenities in schools, such as, water, electricity, proper roofs and walls which can protect from harsh weather, etc.; corporal punishment and other forms of humiliation; lack of connection between primary and upper-primary education; the dissociation between the aims of education and the goals of schools; the issue of unjustifiable fee hike in private schools; the issue of allotment of free land to private schools; and violation of educational rights of poor children.

This lecture will discuss how in taking action on behalf of poor children for ensuring their educational rights, one comes to the awareness that simply finding a case and fighting it is not enough. Unless public opinion and public anger are also not built up against such denials, these wrongs will continue. I will discuss how I learnt to enlist the support of the media in creating awareness and opinion.

At the same time, however, I realised that going to the courts alone cannot and should not be an answer to all the ills in education. Mobilising public outcry is also important. Sometimes, when people come together to demand action, matters can be rectified without going to a court. I will discuss in my lecture how at this point, I learnt to make correct strategy to achieve justice for children's right to education.

* This article was presented during the Fourth Mahadevi Verma Memorial Lecture 2010 at Regional Institute of Education, Bhopal, on 5 October 2010 and published by the NCERT, New Delhi.

**He has been practising Law at Supreme Court and the Delhi High Court.

However, there is a limit to what a lawyer can do. There are many problems for a lawyer to cope with. Through my work so far I have merely demonstrated what lawyers can do and how to do it. But it cannot be denied that there needs to be an escalation of lawyer intervention on behalf of the child. Perhaps, time has come to move from individual initiative to networked legal aid; to development of systems of case support to lawyers; to build NGO linkages with lawyers; to evolution of government schemes of lawyer involvement; for informational systems to be developed for orientation and briefing of lawyers and judges in right to education.

Maybe it is also time for including Right to Education (RTE) in the formal and informal curriculum of legal education. Students in law colleges should learn about child rights and their defence in the curriculum, just as they learn about contracts and criminal law. Universities should actively think about separate optional papers, diploma and certificate courses in RTE. Similarly, there could be research on PILs in education.

In closing, I would like to argue that legal intervention acts as a trigger to reform in education. Not only does it serve to highlight wrongs and rectify them, but ultimately, it will also build communities in schools who know their rights and duties, and hence there are fewer predispositions towards violation of children's right to education. Already, the parents in private schools are no longer as timid as they once were, and already government officers are becoming alert to ensure transparency and justice. Through the intervention of lawyers, I see a vision of future with mutual respect and improved provisioning of education from a rights-based perspective.

I am grateful for this honour of being chosen to deliver the 4th Mahadevi Verma Memorial Lecture, which gives me an opportunity to talk to you about some matters related to the right to education that has been very dear to my heart, and to which I have devoted most of my working life, and will continue to do so I hope, for as long as I am needed and able to serve. I am all the more grateful for this honour because we lawyers are seldom remembered at happy moments. Generally, lawyers are seen as associated only with bad moments, and when you curse someone you wish on your enemies to have trouble and to visit courts and lawyers. We lawyers seem to be associated with nothing but trouble, and therefore, I am all the more grateful that I have been remembered as a friend among this much respected community of educationists.

The fact that I have been remembered by educationists is in itself a sign of the change in the relationship between the world of education and the world of the courts. Until not very long ago, we lawyers had very little, if at all anything, to do with school education. May be these two worlds met in relation to cases regarding service matters of teachers, and cases of school managements taking action against teachers, etc. Other than that, to this world of educationists, a lawyer was either someone you hired, or someone who was an adversary—the lawyer was never a friend or a partner. The phenomenon of the lawyer as a friend

of the educationist is of very recent origin, perhaps not more than 10 to 15 years old, and it is this phenomenon, its evolution, its progression and its potential, that shall be the subject of my lecture today. Many consider me to be one of the pioneers in this area, that may or may not be true, but certainly because of the media reports of my cases, the positive role that lawyers can play in defending the right to education has become known to more and more people. In many ways, the evolution and progression of the new role of lawyers in education follows along the trajectory of my own career in fighting for the right to education, and the rights in education.

You must be very well aware that the whole concept of human rights itself is very recent. The term human rights came in after World War II with the birth of the United Nations, and the Universal Declaration of Human Rights. The very idea of a right, and an equal right to all humans simply by virtue of being human was itself a novel idea around that time. Some races were considered superior to other races, some castes higher than others and the males superior to females—many of these ideas still linger on in the minds of some people, but they have been more or less eradicated in the laws of the nations. In such a context, there was hardly any space to even consider the question of children having rights of their own.

People had duties and responsibilities towards children, that much was there, but that a child should be having rights, may be even against parents, simply by virtue of being a child, in the same way that humans had rights simply by virtue of being human—that idea was perhaps too progressive for that period—as the world in that period had enough problems with accepting all humans as equal.

You may be surprised to know that it was only in 1989 that the rights of children came into being in international law, through the UN Convention on Rights of the Child (CRC), and India signed it in 1992.

Most of us, who are present here today, have spent their childhoods without being the subject of rights. But the very fact that we are here today, shows that we were the lucky ones who received food, shelter, clothing, education, etc., and everything else that made it possible for us to be what we are today. Many children even today are not so lucky. They continue to be deprived of all those things that we have perhaps enjoyed and which have enabled us to reach where we are today. So if even after having these things called rights, if children are still no better off than before, then you will say, of what use are these things called rights if it makes no difference whether you have them or not? If ultimately everything is only going to depend on personal goodwill, and you may even say, on the sweet will of others, then why talk of rights if they mean nothing at all?

When we say that someone has a right to something, or that children have rights today, it does not mean that with a magic wand, things that children have a right to, such as, food, shelter, clothing education, etc., will appear out of nowhere for each child. Then what does it mean to say that we have a right? To understand this, let us think of those days when these rights did

not exist even on paper. For example, not so long ago, it was believed that children are the property of their parents—they are owned by their parents, and that parents can do anything to them. While many still think in this way even today, the majority of us tend to believe that there are some things that even a parent has no right to do to a child, and that children cannot be treated as wished by those in authority. In our time, our father's words were taken as law, fathers (or grandfathers) decided for us, what we are to become, how we are to act, what we are to do or not do, and it was our duty to pursue that course and no other. Is that the case in our own homes today? Not at all, for my generation it seems that we were dictated to by our parents and now we are dictated to by our children. Certainly the idea of a parent–child relationship has changed in many homes. How did they change?

I would say that the ideas of rights have gained a lot of ground since then—just as we were first intrigued and then obsessed by the idea of gaining freedom. It is as though a wind blows, and it changes what we think and how we do things. At one time, we used to think it was the parents' wish whether to send their children to school or not—now we tend to think that any person who chooses not to send their child to school is doing something not good for the child, they are depriving the child of education and the child will suffer later. Nowadays we consider any parent who does not send his/her child to school as neglectful or ignorant. People have now come to believe that children have a right to education; people now believe parents should not prevent them from getting that right. As I said, our ideas change—these days hardly anyone would agree with those who argue that it is the right of the parent to keep the child ignorant.

To me, this is what a right means, a right is first adopted by the mind, it makes our ideas change, and as our ideas change, society changes. It is the society that ensures that rights are achieved. Rights do not make things appear out of thin air as if by magic. As I said, by making or adopting something, for example, education as a right, that something does not appear out of thin air by magic, but certainly our ideas begin to change, we begin to recognise that all children can and should get education. The adoption of a right on paper is merely a milestone. Some would say, it is a goal post, it gives us a point and a direction to work towards.

So friends, to me, that is what changes when we say someone has a right to something, a standard is established, and gradually, attitudes, values and practices start to follow until real life, reality, or the norm becomes that situation what was aspired by the right.

And when rights get established in law, such rights can be claimed by well-wishers on behalf of children. Even if a child is not so lucky to have family and friends to fight for them, the fact of having a right works to ensure that some agency, or even the government, works for the child to ensure that the child's care, shelter, food and education along with an identity, a birth certificate, nationality, dignity even at school, the right not to be beaten under the pretext of education, etc., are all taken care of.

All of these rights became accepted the world over with the acceptance of the CRC.

You might ask why am I talking about the CRC, which is an international convention, and which is not binding as a law in India? While that is the case, it is also true, that our Constitution asks us to honour international treaties and conventions and our judgements are in harmony with international conventions. For example, as soon as India signed the CRC in 1992, the Supreme Court of India passed a historic judgement in the case of Unnikrishnan J.P. vs. The State of Andhra Pradesh, which made education a fundamental right. And, even though, the judgement itself did not move the government to take any great steps, a movement began which ultimately led to the right to education being placed even on election manifestoes, on Common Minimum Programmes, and eventually to amendment of the Constitution and education becoming a fundamental right.

A fundamental right is a justiciable right. Justiciable means that if the right as it is stated is not given, or if the government or anyone else who is bound by it defaults in some way, then one can turn to the courts for remedy. And even before the courts come into the picture, the lawyers have to be brought in, in order to complete this circuit of justiciability for which we amended the Constitution. Therefore, although we do not hear too much on this issue, and even the government has not taken steps in this direction, the right to education cannot be enforced without a lawyer coming into the picture. But you will surely see the irony of this situation—How can a child who is not even able to afford a school, or a teacher, can afford a lawyer? As you know, lawyers are private practitioners—we lawyers depend on the income from the practice, we depend on the fees. So on the one hand, we make free and compulsory education a fundamental right, and on the other, in order to enforce this right, we have to go to lawyers, who are by no means free and compulsory, then how is the child to get the right?

Therefore, if without a lawyer, it is not possible to seek to enforce the right in the courts, then it surely amounts to the right remaining where it is—on paper. The purpose of my talk today before this august audience is just this—to reflect on the role of the lawyer in the right to free and compulsory education.

You will ask—but I am a lawyer—why am I doing this? How am I fighting for the right to education? How does a child who cannot even afford a teacher, who does not even *know* that he has a *right* to a teacher, would come to me and expect me to fight for him in the courts? What are the problems that children face? In order to reflect on the role of the lawyer in education, I will tell you about my role as a lawyer fighting for the right to education, and then perhaps we can together reflect on whether a lawyer is enough, or we need more lawyers, and if we need more lawyers, where are they to come from? Why would they come? How to sensitise them about denials of rights in education? How to ensure that the lawyer finds the children, because surely, such children cannot find the lawyer?

My own initiation in the right of children to education was actually very conventional. I basically fought labour

cases. My ideological leanings were also sympathetic to the right of the workers and the poor, but my first case in education came from a very typical route—some people known to me were concerned that the private school that their children were attending had again raised the fees and there seemed to be nothing that the schools were afraid of. My own education had been in a government school, and I told them, "Instead of complaining, you should send your children to a government school, there would be no question of fees." I told them, "You have come from a government school, I have come from a government school, and we are doing OK." They told me, "When was the last time you saw a government primary school. Go and see a government primary school." So I went to a government primary school. I saw the state of the school, and the attitude of the head master and the teachers, I found that even the teachers were very few and they were not teaching, only minding the children so that they do not run around or make noise.

After seeing the state of the government schools, I realised that the reason that parents are at the mercy of the private schools is that the government schools are in a very bad shape, and that the reason that the government schools are getting worse is because more and more people are leaving them for other kinds of schools, and the ones left have no power to make a demand for better schools and better management. Therefore, I came to the realisation that if the situation has to change, then both schools have to improve. When children in government schools get their due rights, then the children in private schools will also get their rights and not be at the whims and mercy of the private managements. There is one system, one set of rights, one set of laws, so improvement has to be done in both kinds of schools.

Anyway, I was lucky to win the case of the fee hike in private schools, and it had the effect of enforcing the law in respect of other private schools. Because it was a private school case, the news was carried in many of the papers, and people came to realise that the private schools were making profits from one school, and using that profit to set up another school, and another, until they became more and more powerful as a chain of schools. Now Godrej and Reliance, for example, can set up chains of establishments. They are commercial organisations and are subject to the tax, the scrutiny, the quality standards, and consumer interest laws that all such commercial establishments are subject to. Now any philanthropist can set up any number of schools if he has the money and make a chain. But one school cannot give birth to another school to make a chain.

A school is a philanthropic, non-profit organisation in our country. So where is the question of profit, and that too so much profit that you can set up another and yet another school? And if there is profit, then where is the question of not being able to meet the costs, and of hiking fees? It was decided after that case that no school can use the fees from one school for the purpose of another school even under the same trust. And in order to establish profit, the rule regarding submission of audited balance sheets got highlighted. Thirdly, another rule

regarding submission and approval of statement of fees before every term got known and enforced.

I realised during this case that the reason why the profits from one school can be used to set up another, is because everywhere the governments were supporting the establishment of philanthropic effort such as educational institutions and hospitals for public purpose by giving them free land. So if the land is free and the proceeds from another school are funding the building, then what was the problem in building chains of schools? Also, as with any private commercial enterprise, the 'brand marketing' exercise ensures that the school seems better and more desirable than the existing government schools. So why should people who have more money not show it? Private schools, far from serving a public purpose, became status symbols and everyone wanted to be seen only in these schools.

We all know the story of Akbar and Birbal in which one day Akbar drew one line and told Birbal to make it smaller without touching it. All Birbal had to do was to make another bigger line next to the first line and the first line became the smaller one. Same is the case with the government school. If another school next to it, is better, even if it is only because of the shiny building and the brand marketing, then automatically, the government school becomes less desirable. All those who would have attended it, want to go to the status-symbol school, and the private school is placed in the powerful position of being able to select and reject the children of the rich. Other ancillary industries also develop—one industry is that of patronage, anyone who is anybody or knows anybody tries to use influence to get admission. The rest go to the other industry—that of training the children like animals in a circus—even that is not allowed nowadays, but it is allowed to train children to perform in the admission interview. The school becomes more powerful, and even the government officers fear to oppose anything the school does. It seems that they cannot be approached twice even to secure the filling up of the DISE Information Proforma, which carries individual report cards of 1.3 million schools in India. But surprisingly, how many private schools are there in the list? You only need to check to see if the schools you know about are represented there and you will have your answer.

You will find that I started from one case, and it was not a case, it was a box—a Pandora's box. I have linked everything to everything else through it—actually that is exactly what happened. One thing just led to another. I also realised that when the government granted the free land to the schools, they attached a condition, that the schools would reserve 25 per cent of its total pupil strength for poor children and provide them free education. But the schools never bothered, and no one bothered to trouble the schools on behalf of the poor.

This realisation served me well because it set the basis for some of my future cases, for example, the case about nursery schools admissions, about the free seats in land-grant schools, the poor condition of government schools and the fee hike in relation to the 6th Pay Commission. But after my first case, I wanted to do something about the

government schools. But where to start?

I started visiting the government schools and meeting the teachers, the headmasters and the parents in order to see where the problems lie. Every Saturday when there was no court, I would take my car and go and visit some government schools. I noted the poor conditions, the apathy of the government towards the teaching staff, the apathy of the teaching staff to the children, etc.

One of the first cases I filed was about the infrastructural facilities. Many schools were running in tents, in rooms with tin roofs, which became unbearable in summer and bitterly cold in winter, even the buildings were in dilapidated conditions. I took photographs and filed them in the court in a series of cases. The courts were kind enough to issue orders banning the use of tents, the use of tin roofs, stating that only proper pre-fabricated structures may be used for temporary classes. Noting that the schools were running in old and insecure buildings, the courts ordered that the buildings be replaced by new structures. Today, you will find the teachers working not under trees and in verandas, but in well-constructed classrooms, and people are surprised to see the new face of schools of the Municipal Corporation of Delhi.

It came to my notice that one child had been run over by a truck just outside a municipal primary school. What was the child doing outside the school? It came to light that the school had no facilities for drinking water. When this issue was raised in the courts, the officials set up the hand pump and water tap overnight, then tried to explain to the inspection team of the court, even though they could see that the cement was still wet, that the school had facilities for water, but that the child had run out simply out of mischief.

The moment they pleaded in that direction, they got caught for not having a proper boundary wall with a gate and a guard. The people had trusted the schools with their children and the schools were responsible for their safety and care. With this case, all the municipal schools became equipped with water, boundary walls, and security guard. In another case, it was also made the duty of the government to ensure that electricity supply to a school was never cut off for non-payment of electricity bills. The fault was of the government, and the children were made to suffer.

As you can imagine, I became fairly well received in the schools. Even the senior officials in the municipal corporation surprisingly did not resent me—they saw that I had managed to bring about the orders for the improvement of faculities in the schools, which they had wanted but were not able to do.

Alongside the improvement in the structures, I had noted that a number of processes also needed improvement. I realised that in the school there was a regular turnover of teachers- some joined the secondary schools, some got married and left, some retired, etc. But there seemed to be no regular system to take note of this need for teachers or to ensure that there were enough teachers in the schools. So the matter was taken to court to say that if the government was indeed serious about ensuring education, then the process of recruitment of teachers should have begun, but not even the

vacancies have been advertised to date. The court eventfully ordered that a regular calendar of recruitment be prepared and followed every year to streamline this process.

Another example, the schools were saying they wanted universal enrolment, but they themselves were hampering this process, due to their demand for this or that certificate. So a court order was obtained (after a PIL) that the parents could admit the child without birth certificate or affidavit. But what about the children without parents, i.e., the children on the streets. We took this issue to the courts and there was great drama, because we had brought some street children into the court and the judge asked the director of education, who are the parents of these children? The media also had a great moment reporting cases like these, and I realised that in the right to education, the greatest battle is that of realisation—once people become aware and realise what is a right, then they also begin to recognise the violation of the right. So I realised that the media can play a big role in creating awareness.

By this time the Internet also became popular, and I learnt how to use it. I learnt how to use the email, and kept the media and a few friends and well wishers aware of my cases and they in turn gave publicity in the papers. I created a website and kept some important background information on the website for ready reference.

I gradually made friends among the educationists also and through them I became aware of some of the issues. Many times, they would be useful to me in discussing the different aspects of a case. What I am trying to say is that there is very little that I can take sole credit for, and indeed this battle requires teamwork and team support. If I had anything, it was my persistence and the support of my family. They did not complain that I could have earned more or had a better standard of living if I had devoted this time to paid cases. If you think I am rare, I think my family is rare. But if lawyers who fight for children are not to be rare, then we must do something that will enable the average person to join as a lawyer in the fight for right to education. I will return to this issue later, and let us first discuss the ways in which children are denied the right to education and why there is need for support.

Along with the removal of document barriers to admission, I supported the *Dakhila Abhiyan*. This was a process that had the support of the SCERT of Delhi and was instrumental in generating awareness about school enrolment. Similarly, I found that some fee (not exactly fees but some amount for some fund or the other) was being collected at the time of admission in the municipal schools. We first asked the MCD how the schools were collecting anything without receipt. So they issued an order to give receipt. The moment we had a receipt, we produced it in the court saying that contrary to the stated policy, the schools are charging money, and free and compulsory education is not 'free'. After that court judgement, now admission is truly cashless and paperless.

Another barrier to the right to elementary education in Delhi was also realised quite by chance. One of my educationist friends mentioned about

the system in Mumbai, where despite education being a right until the age of fourteen, the municipal schools would give the children a Transfer Certificate (TC) at the end of the last class of the municipal school. The upper primary stage is in an aided school, also free, but it was not the responsibility of the government to see that the child who left the municipal school was able to join an aided school. Then I realised that same is the case in Delhi. Even though the government provides secondary education, it does not care to take the children of the municipal schools from the last class of the municipal school to the next class in the upper primary in the government secondary school. I added this issue to an ongoing case and sure enough, the order came that the right to education meant that the onus of education within the elementary stage was on the government. The government should ensure the transition of children from the primary stage in the municipal schools to the upper primary stage in government schools. At first there was little response, but after filing a case of contempt of court, I think the government also realised that this was a good way to ensure a high transition rate. Today, each government secondary school has a number of feeder primary municipal schools attached to it and the government is proud to have taken a lead in something that is now mandatory through the Right to Education Act.

You can see, therefore, that although when I started out, I neither knew about education or about the ways in which children are deprived of their rights in the schools and outside the schools. I slowly began to gain awareness of what is happening. My only guide was the law, the Constitution of India, and the International Conventions. These gave me a frame of reference to judge whether what ever happening is right or not.

However, I still go to the schools, especially the schools in the outlying areas in Delhi in order to see if children are being deprived of their rights. However, the problems of the rich are also no less than the problems of right to education. Even though my practice also picked up regarding violation of rights in schools, I kept my time for my 'own' suo moto cases. One of these was regarding the admission of children of the weaker sections to the free seats that these children were to get after the school got a land grant from the government.

When I took this case to the court, suddenly, a large number of schools in Delhi spontaneously developed a change of heart and opened non-formal education classes in the afternoon. The Delhi Government which had so far not bothered to enforce this clause, suddenly became aware of it, although the same rule gave free land to the schools. They blamed the DDA which gave the land, and the DDA blamed the Directorate of Education and ultimately rules were prepared, a set of criteria was evolved to decide who would be called 'weaker section. A process was evolved for securing an income certificate of economically weaker' section. NGOs made the weaker sections aware of the process of obtaining admission to the schools. Even then, the schools were reluctant to admit the poor.

The schools which had been claiming to give quality education, when the time came for them to prove it, their behaviour

gave away the truth, that the 'quality' they professed to be manufacturing in the schools, actually lay in the selected and handpicked batch they admitted every year to the school. Children of professionals, who may be genetically endowed with this thing called intelligence and by the success achieved by their parents, are expected to have the right attitudes and home circumstances to foster good grades—the indicator of 'quality'. Of course they also had a good mix of children of business-class parents. Very reluctantly, these schools gave admission to only those children who were assisted by some NGOs or whom they could not manage to push away. Some schools of course truly embraced their obligation and are educating the children of the poor and of the rich, but such schools are rare. Although schools all over India receive land grants under the same conditions, but since law is a state subject and the case was in the High Court and restricted to Delhi, the implementation of this nationwide obligation is also limited to Delhi. Now of course, this need for social mixing and the harmful effects of economic apartheid in education have been widely recognised, and now this clause is one of the best-known clauses of the 'Right of Children to Free and Compulsory Education Act 2009'.

Admission to a private school of choice is an annual affair marked with a lot of tension for both parents and children. But for the schools it is like a harvest festival. I hear that money is made and people are 'obliged'. Children who 'fail' the admission test and interview recognise early in life, that they are somehow 'less' than those who were 'clever' enough to make it to a particular sought-after school. I took a case regarding the admission process of a private school to the court. The court naturally spoke on behalf of the child, but recognising the need to have some criteria other than the present ad hoc tests and interviews, it appointed a committee to be headed by the then CBSE Chairman, Mr. Ashok Ganguly to develop some criteria. The Ganguly Committee debated and evolved a method to restrict admission to children who live within a certain radius of the school, and also gave 'points' for other criteria such as a sibling in the same school, parents being alumni of the school, etc. Although even now the system is far from perfect, the fact remains that an evil in education and its vicious effects on children was recognised as such, and an effort was made to induce transparency into a system that had so far resisted all interference into a domain that gave it great power and privilege.

Whether rich or poor, children suffer equally from corporal punishment. They suffer disproportionately when they have disabilities. All types of schools try to hide the fact of child abuse by torture and to keep the disabled out. Even the so-called schemes of the education of disabled children are not able to identify the disabled through household survey. I do not know what kind of survey is conducted, because when I went into a *basti*, I was surprised to find a large number that were there and known to all to be there but were unable to access schooling. If you keep only the face of the child in your mind, it might occur to you, if you had been that child what

would have been your fate? They deserve better, and a society that calls itself civilised should look after its people especially those who cannot look after themselves.

This brings me to the role of the lawyer in education. It is for you to decide, whether a lawyer is the last mile link to seek remedy from a court of law or not. I also wish that a lawyer is never needed and that no child or parent needs to enforce their right to education through a court of law. But I have seen that the real world is not like that, and if you have reached the same conclusion after hearing about some of the types of issues that I have had to handle through courts, you will also wonder how to bring about situations in which lawyers seek opportunities to serve free of charge for the cause of education. I have no doubt that many more lawyers would like to serve but they do not know where to start or what kind of issues need their attention.

I have made a start in my community by sensitising my colleagues, but they are confined to Delhi. What about Madhya Pradesh, Kerala, West Bengal, Sikkim, Gujarat? Every state, every town and every village needs someone to protect the interests of children because they are unable to look after their own interests.

I realise my own example may not be that easy for everyone to follow, but what if NGOs who are already sensitised to serve, are also sensitised to rights to education, rights in education, and how to enforce them. If these NGOs could work in coordination with lawyers, I am sure there will be enough lawyers who would be happy to provide free service, or like any other service that NGOs pay for, the cost of a lawyer and court charges could be built into their plans. NGOs in the education sector, use many strategies—the legal route could be one of the strategies that the NGOs could use, and in the process they can train the lawyers who work with them.

NGOs could also link with legal service authorities that are there in every state. So far these authorities are fairly understaffed and overworked, so they do not actually go looking for instances where the rights have been violated. They are not used to dealing with situations in which even the victim does not realise they have been wronged. NGOs could link with them as well.

There is a need I think for a centralised resource—maybe through websites where information about cases related to the right to education could be collated and made available. Such sites would sensitise NGOs, lawyers, judges, etc., about the types of problems encountered by children in the field. Such a site would be essential especially for a state subject such as law, because the cases would be limited to the district or the High Court of a state. Cases in one state would create awareness about issues and inspire other states to get the same or similar situation solved. The fee hike following the 6th Pay Commission, for example, is an issue that many states have in common. For the first time, an All India Parents Association has been formed and is informing other states about issues and rights. What is needed perhaps is a less partisan and more stable informational resource.

I would say, even sensitisation lectures are useful. There may be some among you, who did not know about many

of the rights or how they are violated even by governments or schools. It is my suggestion that organisations like NCERT, SCERT, NUEPA, etc., should give lectures even in law colleges and judicial academies. They could even run courses on right to education and its defence. They could run courses in public legal education in collaboration with law colleges and even train children to know their rights and recognise their violations.

Friends, the possibilities are endless. Now that we have amended the Constitution and made education into a justiciable fundamental right, the role of lawyers in making that connection with the court of law becomes inevitable. Children have been denied their right to education for too long. I envisage a day in the not too distant future, when speaking softly but carrying a big stick, we will build a future of mutual respect and improved provisioning of education from a rights-based perspective.

With these words I thank you for listening to me so patiently, and for giving me this honour of speaking to you.

Thank you.

Inclusive Education: A Developmental Approach in Special Education

POONAM*
SHEELA SANGWAN**

Abstract

The goal of this review paper is to examine the issues related to the provisions, practices and curricular concerns for children with Special Educational Needs (SEN) in inclusive education. The paper focuses on educational outcomes of inclusion for students with and without developmental disabilities, including studies that have measured both traditional academic outcomes (for example literacy, mathematics, etc.) and non-academic skill development in areas such as basic life skills (for example communication, motor skills, functional life skills). It also reviews the research literature related to teaching techniques and educational contexts that have been found to promote effective inclusion (i.e., to provide optimal learning for all students, both with and without developmental disabilities).

To educate means to develop and cultivate (Merriam-Webster, 1978). To teach, on the other hand, is defined as *to cause to know; to show how; to guide; to make to know the consequences of* (Merriam-Webster, 1978). Thus, education includes more than instruction in academic subjects; and teaching includes more than just delivery of academic content. Education should develop the whole child and cultivate all of the skills, attitudes, and knowledge necessary for successful integration into society. Schools should provide students with opportunities to discover, model, experience, and learn consequences. This is true for all populations of learners, both with and without disabilities; but it is especially true for students with developmental

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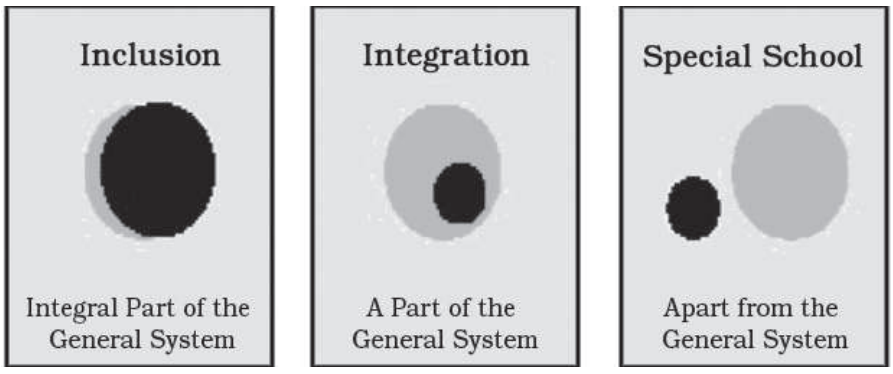
disabilities, because they often have difficulties with social, emotional, communication, motor, and behavioural development in addition to academic learning (Alper and Ryndak, 1992). Thus, practices such as inclusion that aim to educate such students in the full sense of the word must promote development across all educational domains.

Inclusion as we know it today has its origin in Special Education. The development of the field of special education has involved a series of stages during which education systems have explored different ways of responding to children with disabilities and to students who experience difficulties in learning. In some cases, Special Education has been provided as a supplement to general education provision; in other cases it has been entirely separate. In recent years, the appropriateness of separate systems of education has been challenged, both from a human rights perspective and from the point of view of effectiveness. Special Education practices were moved into the mainstream through an approach known as integration. The main challenge with 'integration' is that 'mainstreaming' had not been accompanied by changes in the organisation of the ordinary school, its curriculum and teaching and learning strategies. This lack of organisational change has proved to be one of the major barriers to the implementation of Inclusive Education policies. Revised thinking has thus led to a re-conceptualisation of 'special needs'. This view implies that progress is more likely if we recognise that difficulties experienced by pupils result from the ways in which schools are currently organised and from rigid teaching methods. It has been argued that schools need to be reformed and pedagogy needs to be improved in ways that will lead them to respond positively to pupil diversity – seeing individual differences not as problems to be fixed, but as opportunities for enriching learning.

How is Inclusion different from Integration?

In special school concept, the special education component is *apart* from the general education system, whereas in integrated approach, it is *a part* of the



Shifting Models of Disability: Historical Progression

general education. Inclusive education goes one step further. In this approach, the special education is an *integral part* of the general education system. Therefore, the transition from 'Special School Concept' to 'Inclusive Education' can be treated as an evolutionary process in the services for children with disabilities.

Shifting Models of Disability: Historical Progression

The shifting approaches to disability have translated into very diverse policies and practices. The four major identifiable formulations of disability are: the charity model, the bio-centric model, the functional model, and the human rights model.

The Charity Model: The charity approach gave birth to a model of custodial care, causing extreme isolation and the marginalisation of people with disabilities.

The Bio-centric Model: The contemporary bio-centric model of disability regards disability as a medical or genetic condition. The implication remains that 'disabled persons' and their families should strive for 'normalisation', through medical cures and miracles. Although, biology is no longer the only lens through which disability is viewed in law and policy, it continues to play a prominent role in determining programme eligibility, entitlement to benefits and it also influences access to rights and full social participation (Mohit, 2003).

The Functional Model: In the functional model, entitlement to rights is differentiated according to judgements of individual incapacity and the extent to which a person is perceived as being independent to exercise his/her rights.

The Human Rights Model: The human rights model positions disability as an important dimension of human culture and it affirms that all human beings are born with certain inalienable rights.

Inclusive Education in India

Trends in provisions in India reflect that the leading policy predisposition before the 1970s has been that of segregation. During the 1880s Christian missionaries started schools for the disabled on grounds of charity. This was followed by the government initiatives to establish separate workshops, model schools, central Braille presses and employment exchanges for the disabled population of the country.

In the 1970s the Integrated Education for Disabled Children (IEDC) scheme was launched by the Union government for providing educational opportunities to learners with SEN in regular schools. Nevertheless, the statistics show that though the integration of learners with SEN gathered some momentum, the coverage under this scheme remained inadequate. There was a clear need for fuller access of children with SEN to all educational opportunities. Dissatisfaction with the slow progress towards integration along with the consideration of the costs involved led to a demand for a radical change.

Meanwhile, the National Council of Educational Research and Training (NCERT) joined hands with United Nations Children's Fund (UNICEF) and launched Project Integrated Education for Disabled Children (PIED) in the year 1987, to strengthen the integration of learners with disabilities into regular

schools. An external evaluation of this project in 1994 showed that not only did the enrolment of learners with disabilities increase considerably, but the retention rate among disabled children was also much higher than the other children in the same blocks. In 1997 IEDC was amalgamated with other major basic education projects like the District Primary Education Programme (DPEP) (Chadha, 2002).

After the World Conference on Special Needs Education in Salamanca in 1990s, inclusion became the magic word in the educational field. The *Salamanca Statement* adopted by representatives of 92 governments and 25 international organisations has, in fact, set the policy agenda for inclusive education on a global basis. India is a signatory to the Salamanca Statement and Framework for Action on Special Needs Education (1994) that emphasises access to quality education for all.

The National Policy on Education (NPE)1986 envisaged measures for integrating the physically and mentally handicapped with the general community as equal partners, to prepare them for normal growth and to enable them to face life with courage and confidence.

The 86th Amendment of the Constitution of India has made education a fundamental human right for children in the 6 to 14 age group thereby making it mandatory for all children to be brought under the fold of education. This includes children with disability.

Though awareness is being created by the inclusion of learners with SEN in major educational programmes like the DPEP and now the Sarva Shiksha Abhiyaan (SSA), most of them address SEN as a segregated issue rather than as one that runs through all initiatives. This is supported by the fact that under the SSA, training, linkages with parents, salaries of special educators, aids and appliances, etc. are all provided through the separate provision of ₹1200 per disabled child per annum.

The Draft Scheme on Inclusive Education prepared by the MHRD (2003) uses the following definition: Inclusive education means all learners, young people—with or without disabilities being able to learn together in ordinary preschool provisions, schools, and community educational settings with appropriate network of support services (Draft of Inclusive Education Scheme, MHRD, 2003) .

Benefits of Inclusion

The benefits of inclusion for students with SEN are as follows:

- Spending the day at school with classmates who do not have disabilities provides many opportunities for social interaction that would not be available in segregated settings.
- Children with SEN have appropriate model of behaviour. They can observe and imitate the socially acceptable behaviour of the students without SEN.
- Teachers often develop higher standards of performance for students with SEN.
- Both general and special educators in inclusive settings expect appropriate conduct from all students.
- Students with SEN are taught age-appropriate, functional components

of academic content, which may never be part of the curriculum in segregated settings (for example, the sciences, social studies, etc.).

- Attending inclusive schools increases the probability that students with SEN will continue to participate in a variety of integrated settings throughout their lives (Ryndak and Alper, 1996).

Benefits of Inclusion for Students without SEN are as follows:

- Students without SEN have a variety of opportunities for interacting with peers of their own age who experience SEN, in inclusive school settings.
- They may serve as peer tutors during instructional activities.
- They may play the role of a special 'buddy' for the children with SEN during lunch, in the bus or at the playground.
- Children without SEN can learn a good deal about tolerance, individual difference, and human exceptionality by interacting with those with SEN.
- Children without SEN can learn that students with SEN have many positive characteristics and abilities.
- Children without SEN have the chance to learn about many of the human service professions such as, special education, speech therapy, physical therapy, recreational therapy and vocational rehabilitation. For some, exposure to these areas may help them to make a career in any of these areas later on.
- Inclusion offers the opportunity for students without SEN to learn to communicate and deal effectively with a wide range of individuals. This also prepares them to fully participate in a pluralistic society when they are adults (Ryndak and Alper, 1996).
- Inclusive education ensures that a school responds to the educational needs of children in the neighbourhood. It brings a school closer to the community (Jha, 2002).

Social Interactions and Educational Outcomes of Inclusion

In the course of exploring the social benefits of inclusion, researchers discovered that the opportunity to interact with peers without disabilities also had academic benefits. Brinker and Thorpe (1984) wrote a seminal article exploring the rate of peer interactions as a predictor of inclusion outcomes. They observed the rates of interaction with typical peers by 245 students with severe disabilities. When level of functioning was held constant, the rate of interaction with typical students accounted for a statistically significant 2.1 per cent of the variance. However, the rate of interaction with other students with severe disabilities was not a significant predictor of students' educational achievement. This is an important finding since it establishes a clear relationship between social interactions with typical peers and the achievement of Individual Education Plan (IEP) goals by students with severe disabilities.

Class Placement and Educational Outcomes of Inclusion

Meta-analyses and comparative studies that have compared the educational outcomes of students with developmental disabilities in inclusive versus segregated classrooms have found either no difference in educational outcomes or

positive effects for inclusion (Hunt and Goetz, 1997). For example, Cole and Meyer (1991), in their longitudinal study that explored the benefits of inclusion for students with severe disabilities, found no significant differences over a two year period in the traditional domains of self-help skills, gross and fine motor co-ordination, communication, and adaptive behaviour for students in integrated versus segregated settings. However, students in the integrated settings spent less time in their school buildings and more time in the community than their segregated counterparts. This is a surprising finding given the common belief that specialised settings are better able to promote instruction in life skills/vocational/work settings in the community (Cole and Meyer, 1991). Also of significance was the finding that the students in integrated settings spent as much time in contact with special education teachers as those in segregated settings. Thus, the claim that segregated settings provide more intensive and direct instruction is called into question by these results.

Most of the research studies that have studied the relationship between class placement and educational outcomes have found positive effects for inclusion. In 1985-86, Wang and Baker conducted a meta-analysis to review and analyse the design features and efficacy of mainstreaming as an educational approach to serving students with disabilities. Over 50 per cent of the students were classified as mentally retarded, 25 per cent included mixed categories of exceptionalities, 19 per cent were hearing impaired, and 3 per cent were learning disabled. The findings suggested that students with disabilities in mainstream classrooms made greater overall academic gains then their peers with similar disabilities in segregated classrooms.

Helmstetter, Curry, Brennan, and Sampson-Saul (1998) compared the use of instructional time for students with developmental disabilities in general and special education classrooms. All of the participants spent some time in inclusive classrooms and some time in segregated classrooms. The percentage of non-instructional time was significantly different in the two settings, with 58 per cent in the segregated classrooms and only 35 per cent in inclusive classrooms. In fact, even when whole class instruction was deleted from the computation of instructional time, a significantly greater amount of time was devoted to instruction in the inclusive classrooms.

Engaged Behaviour and Educational Outcomes of Inclusion

Engaged behaviour (i.e., active involvement in learning and time on task) is a measure that has been shown to predict academic achievement (Bulgren and Carta, 1993). In fact, previous research has suggested that the engaged behaviour of students with disabilities is the single best predictor of academic gains (Bulgren and Carta, 1993). Thus, if general education classrooms promote the active engagement of students with disabilities, it would be expected that academic achievement would also be improved.

Logan and Malone (1998) examined the instructional contexts provided for students with moderate, severe, and profound developmental disabilities in

general education classrooms and their effect on engaged behaviour. Students of all disability levels spent a significantly greater amount of time engaged in academic activities than in any other activities. They were involved in more whole-class activities than in small group or individual structures and were taught most often by general education teachers. The students' level of disability had some effect on their engaged behaviour, although all students demonstrated a high rate of engagement in academic activities. The students' level of participation in functional skills training was limited; however, most of the data were not collected during the non-instructional times when functional skills instruction was most likely to have occurred.

Hollowood, Salisbury, Rainforth, and Palombaro (1994) investigated the amount of time allocated for instruction, the actual time used for instruction and students' engaged time in inclusive classrooms. Students with severe disabilities had more of their daily schedules allocated to instructional tasks than did students without disabilities. Both groups spent comparable proportions of time passively engaged in instruction; however, students with disabilities spent less of their school day actively engaged than did students without disabilities. The authors suggested that this might have been due to the presence of instructional aides for the students with disabilities, who provided extended instruction that often relegated the students to passive roles.

Helmstetter et al. (1998) also assessed the engaged behaviour of their students with severe disabilities in integrated versus segregated classrooms. All of the students spent some time in each of the two settings and spent less time engaged in non-instructional activities when they were in the inclusive classrooms. Active engagement was most prevalent when the students worked in 1:1 formats, regardless of the setting. However, because more individual work was done in special education classrooms, and more whole-group instruction was provided in general education classrooms, active engagement was higher in the special classrooms. The authors noted these results are not surprising, given that passive engagement (i.e., where students listen while the teacher talks) is often the norm in the whole-class instructional activities frequently encountered in general education classrooms.

Altman and Kanagawa (1994) also raised the issue of the need to explore specific instructional contexts and variables that promote the engaged behaviour of students with developmental disabilities. They observed three students with mild developmental disabilities who spent half of their days in integrated kindergartens and half of their days in specialised programmes. They found considerable individual social and academic variation in engaged behaviour across the three students. However, they concluded that the opportunity to engage in academic and social activities varied according to the degree to which potential social agents and presumably academic ones as well, were available and responsive in the environment. Inclusive classrooms provide a greater number of social agents and more responsive peers and should, therefore, promote the engagement of students

with disabilities to a greater degree than self-contained classrooms in which all of the students have social, communication, and learning difficulties. In fact, the bulk of the research has shown that students with disabilities are more engaged in academic activities in inclusive classrooms than in segregated classrooms (Logan et al., 1997).

Academic Benefits of Inclusion for Students without Disabilities

Concerns have often been raised in the inclusion literature about the impact of the presence of students with developmental disabilities, particularly those with challenging behaviours, on the learning of typical students (Peltier, 1997). Hollowood et al. (1994) investigated the degree to which the presence of students with severe disabilities in inclusive classrooms affected the time allocated for instruction, the actual time used for instruction, and students' engaged time. Classrooms with and without students with severe disabilities were compared on all three variables. The average time allocated and used for instruction was comparable for both types of classrooms. There were no differences in the percentage of time typical students were engaged in instruction across the two classroom types. This was a significant finding, as it demonstrated that the presence of students with severe disabilities, even those with challenging behaviours, did not negatively impact the amount of engaged time for typical learners. This finding has since been replicated in other studies (Peltier, 1997).

Hunt, Staub et al. (1994), assessed the achievement of students with and without disabilities in the context of co-operative mathematics learning groups in inclusive classrooms. Typical students were taught to prompt, cue, and facilitate specific communication and motor skills for students with severe disabilities in co-operative group activities. The results indicated that the peer-facilitated interactions did not negatively affect the peers' achievement of academic objectives. Students without disabilities in the experimental co-operative learning groups performed equally well as their peers in co-operative groups that did not include a student with a disability.

It has also been well documented in the literature that students who act as peer tutors in academic areas learn the related academic content to a greater degree and depth than those who passively listen to or read the material (Fisher, Schumaker, and Deshler, 1995).

From this review, there is little doubt that research over the past 20 years has identified many social and academic advantages of inclusion for students both with and without disabilities. Thus, it seems that Baker et al. (1994-95) were prophetic in saying: *As schools are increasingly challenged to serve a diverse student population . . . the concern is no longer whether to provide inclusive education, but how to implement inclusive education in ways that are both feasible and effective in ensuring schooling success for all children* (p. 34).

Emerging Curricular Issues and Concerns in Inclusive Education

- Making all options of education such as open schools, regular schools, special schools, nonformal and alternative education systems,

available to all children including children with disabilities.
- Developing strategies for meeting the educational needs of learners with disabilities in large classrooms.
- Developing national support systems.
- Understanding the significance of early identification and intervention.
- Emphasising good teaching–learning practices.
- Making the curriculum flexible and accessible.
- Utilising technology and assistive devices.
- Developing appropriate assessment and evaluation procedures.
- Capacity building and empowering teachers and stakeholders.
- Providing vocational education.
- Identifying suitable sports and other co-curricular activities for optimal development of learners with SEN.
- Barrier-free intervention/educational environment (including attitudinal barriers).

Instructional Contexts and Teaching Techniques That Promote Academic Achievement in Inclusive Classrooms

Recognition that inclusion benefits both learners with and without disabilities has led to a body of research which has sought to more clearly define the necessary contexts, techniques, and curricular reforms that support the learning of all students. The most commonly mentioned adaptations in this literature include the use of flexible groupings, co-operative learning and peer tutoring, choice-making opportunities, multi-modality instruction and flexible response activities, curriculum or performance based assessment, and collaborative teaching. The uses of technology and community involvement have also been shown to improve the efficacy of inclusion for all students.

Instructional arrangements: Logan et al. (1997) investigated the effects of interactional and contextual variables on students' academic achievement. The results indicated that 1:1 and small-group instructional arrangements resulted in higher levels of engaged behaviour than whole-class arrangements. In addition, the researchers noted that engaged behaviour was highest when peers acted as tutors of students with disabilities. In fact, the use of small group and 1:1 instruction (including peer tutoring or partner work), as opposed to whole-class or independent seatwork, has repeatedly been shown to result in superior levels of engagement and achievement for students both with and without disabilities (Muyskens and Ysseldyke, 1998). It seems clear that, by simply providing more opportunities for small group or partner learning, inclusive classrooms could increase the engaged behaviour and academic achievement of students both with and without disabilities.

In a study on practitioners' perspectives in some inclusive schools carried out by Singhal and Rouse (2003), many teachers who were interviewed stated that there have been no changes in their teaching. Some justified this status quo by stating that the included children do not have less IQ, hence they can fit into the existing classroom procedures. Teachers also argued that many existing constraints did not allow

them to make significant changes in their practices. These constraints included large class sizes, task of maintaining discipline—hallmark of a good teacher, vast amount of syllabus, and the fact that the included student was just one of many in the class.

Krishnaswamy and Shankar (2003), point towards differentiated instruction as an approach for the teacher to weave individual goals into the classroom content and instructional strategies. Valmiki (2003) emphasises culture specific pedagogy and culturally responsive teaching as major initiatives in making education culturally inclusive. Mani and Mulharah (2003) have talked about creating effective classrooms through cooperative learning. According to Malhotra (2003) teachers should be provided flexible syllabi, which would give them more time and freedom.

Co-operative learning and peer tutoring: Given the above, it is not surprising that one of the most common educational adaptations for inclusion cited in the literature is co-operative learning (Jackson, Ryndak, and Billingsley, 2000). In a co-operative learning programme, instructional methods such as direct instruction, small-group instruction, individualisation of roles and accountability and independent practice are combined in a team-based learning approach.

Slavin, Madden, and Leavey (1984) explored the effects of cooperative learning and individualised instruction on mainstream students. The authors concluded that cooperative learning programmes resulted in increased sociometric status of students with disabilities. Students in cooperative learning groups also showed improvements with regard to teacher ratings of classroom behaviour and self-confidence.

Peer tutoring programmes are a specialised form of co-operative learning. Students work together to learn academic content, with a typical student playing the role of a tutor to a student with disabilities. Programmes that have used students without disabilities as tutors have consistently proven to be effective in teaching a wide range of academic, self-help, communication and social skills to students with disabilities (McDonnell, 1998).

Instructional adaptations: Instructional adaptations have also been found to aid in the successful inclusion of students with developmental disabilities. For example, the provision of choice-making opportunities has been shown to increase engaged behaviour and improve performance in children with disabilities (Moes, 1998). As an example, Downing et al. (1996) found that the most common instructional adaptation for three students with autism involved providing choices of activities, materials, groupings, and response methods.

Parallel instruction: Differentiated (or parallel) instruction, in which curricula, goals, methods, pace, or conceptual level of instructional activities are varied according to individualised needs, has been shown to be one of the most effective methods for including students with disabilities (King-Sears, 1997). A number of case studies have demonstrated the effective use of parallel instruction (Ryndak et al., 1999). In all such cases, students were included in regular education classrooms and had

assignments modified to their cognitive/ skill levels.

Teacher Perceptions on Inclusive Education : Overall, it seems that teachers like the theory behind inclusion, but feel that they do not have sufficient skills, knowledge or training in order to teach the vast range of students in their classes under the inclusion model.

Sharma (2002) analysed the attitudes of teachers towards the disabled, how these attitudes relate to various background factors and the ways of bringing about a change in the attitudes of teachers. She reported that:

1. The willingness of teachers to include children with SEN in the general class depended on the children's disabling conditions. Teachers had positive attitudes towards some children with specific disabilities like visual and hearing disabilities. Attitudes were least positive towards the intellectually impaired and those with behavioural problems.
2. The severity of problems in case of locomotors and intellectual disabilities negatively influenced their attitudes towards the inclusion of children with disabilities in their classroom.
3. The majority of the teachers felt the need for change in the school and classroom infrastructure.
4. The attitudes were found to be inversely related to the age and experience of the teachers teaching ordinary children. However, experience of working with the disabled was positively related to the attitudes of the teachers.
5. Female teachers were more positive towards the inclusion of the disabled in their classes than their male counterparts.
6. Science teachers had a more positive attitude towards inclusion than those teaching humanities subjects.
7. The higher the confidence in the use of teaching strategies, the more positive the attitude of the teacher towards the disabled.
8. All teachers reported that they needed more information regarding the types of disabilities, curriculum adaptation, educational implications, and skills and strategies required for meeting the needs of students with SEN.

Studying the teacher education curriculum of the District Institutes of Education and Training (DIETs) from the perspective of learners with SEN, Julka (2004) has implicated a need for all Teacher Education Institutes to ensure inclusive education theory and practice strategies in their programmes. At present, there are no specific provisions in the form of trained teacher educators, resource materials and standardised inputs on learners with SEN in the in-service programmes of the DIETs. In the pre-service programme, only one optional paper or one unit in a compulsory paper are the inputs provided. Training programmes under DPEP and now the SSA, cover this component, but it needs to be strengthened and made more relevant to the needs of the teachers from the perspective of inclusive education.

Fuchs (2008) found that teachers feel a lack of understanding of implementation and support to use the inclusion model and also did not feel they could effectively teach mainstream students in the general education setting.

Recommendations for Effective Implementation of Inclusive Education in India

The following are the major recommendations of National Focus Group on Education of Children With Special Needs (2006) NCERT:

- Make all early education and care programmes (from 0–6 years) sensitive and responsive to the special needs of children, including training of Anganwadi workers in identification of needs of the children with disabilities, use of age-appropriate play and learning materials and the counselling of parents.
- Make all schools inclusive by:
  - enforcing the neighbourhood school policy without exception.
  - removing physical barriers
  - reviewing barriers created by admission procedures (screening, identification, parental interaction, selection and evaluation). This should include private schools.
  - building the capacity of teachers to function in an inclusive setting.
  - making the curriculum flexible and appropriate to accommodate the diversity of school children including those with disability in both cognitive and non- cognitive areas.
- making support services available in the form of Information, Communication and Technology (ICT), Teaching Learning Materials (TLM) and specialists.
- gear all teacher education programmes (both pre-service and in-service) to developing the pedagogical skills required in inclusive classrooms.
- mobilise special schools as resource centres that provide support to inclusive schools.
- develop partnerships with institutions of higher learning, governmental organisations, and NGOs to promote participation of children with disabilities in all aspects of education.
- reduce class size to a maximum of 30 students and a maximum of 20 in case the class includes children with SEN.
- Make the class teacher responsible for all the children in the class. In case special support is required on account of SEN, this should be in the form of assistance to the class teacher.
- Regard all special teachers in a given school as full-fledged members of the school community.
- Make all curriculum-related policies and programmes inclusive in nature to effectively address issues related to the education of children with SEN.
- develop perspective and skills in all administrators, including school principals, for planning and executing programmes based on the philosophy of inclusion.
- develop strengths and abilities of all children rather than highlighting limitations.
- recognising diversity among learners, the medium of instruction should include sign language for children with hearing impairment, and Braille for children with visual impairment. At the same time as an

optional subject/third language, learning of sign language, Braille, finger Braille, etc. should be introduced for all children.

- incorporate a component of human rights education in teacher education programmes to inculcate respect for diversity and the concept of an inclusive society.
- do not subject the admission, retention, support facilities, scholarships, and full participation of children in all aspects of education, to any criteria based on assessment tests, judgment by professionals and experts, including psycho-medical certificates.

Conclusion

The goal of this review was to provide a summary of research outcomes and available pedagogies related to the successful inclusion of students with developmental disabilities in elementary school classrooms. Research detailing the academic benefits for students with and without disabilities has continued to mount. Given that research has delineated such benefits, it is incumbent on educators to investigate and implement educational contexts and strategies that support effective inclusion. A large body of research has identified effective instructional options for inclusive classrooms, including the use of specific educational contexts (for example grouping strategies), techniques, curricula, and assessment methods. Use of these strategies appears to facilitate the academic and social success of students both with and without disabilities. In the coming years, research investigating the extent to which these contexts and strategies are implemented and their effects on the social and academic inclusion of both students with developmental disabilities and their typical classmates should continue. Implementation of an inclusive curriculum would require a number of changes in present day teaching practices, curriculum content, evaluation procedures and available resources at the school level. The goal of providing quality education would remain elusive so long as the concept of inclusion is not linked to broader discussions on pedagogy and effective participation of all children in the learning experiences provided in the classrooms. The implementation of a programme of inclusive education would also involve curricular modifications and the use of human and technological support, including the use of ICT. It is also important to mobilise support from parents, the community, and special schools. Considering the above context, specific recommendations have been made in the paper for developing guidelines for planning and implementing effective policies and programmes for education of children with special needs.

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School Education of Scheduled Castes Population in India :
A Statistical Analysis

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Abstract

The greatest challenge faced by India since independence is the mainstreaming of socially excluded group like scheduled caste. The scheduled caste constitutes one of the weakest sections of India's population, from ecological, economical and educational angles. Some primary and secondary schools have been opened in their areas but the number of school going SC children is very less. Many of them are denied education because either there is no school in their villages or they do not get any facilities to attend them. In order to have a greater coverage on the scheduled castes areas it may be necessary to launch increasingly expanding programmes so that most of the villages should be covered by at least a primary school. This paper is an attempt to study the school education status in the scheduled caste communities in India. The study also focused on some education related parameters and highlights the important issues. The data is analysed statistically on some important indicators and parameters.

Introduction

The term 'Scheduled Caste' is an expression standardised in the Constitution of India though nowhere defined therein. The Article 341 of the Indian Constitution declares that the President of India "may with respect to any State or Union Territories, and where it is a State after consultation with the Governor thereof, by public notification, specify the castes, races or tribes or parts of, or groups within castes, races, or tribes which shall for the purposes of this Constitution be deemed to be scheduled castes in relation to that State or Union Territory as the case may be." It is further

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stated in Article 366(24)[2] that, "Parliament may by law include in or exclude from the list of scheduled castes specified in a notification any caste, race, or tribes". Thus scheduled castes may be defined as those groups which are named in the Scheduled Castes Order of the Government of India, in force from time to time. The Scheduled Caste Order is an order containing a schedule of castes entitled to benefit from the various special arrangements exclusively earmarked for them. In accordance with the provision of the Constitution, the Scheduled Castes Order was promulgated in August 1950. It was amended in 1956 (Santhakumari 1982).

The scheduled castes were the former untouchable castes of Hinduism. Besides the four traditional castes, there was another group of people even during the early days of chaturvarya, who came to be described as untouchables because they were of darker skin and were engaged in unclean occupations (Santhakumari 1982). These castes were systematically listed in the 1931 census of India by British Government. These untouchables' castes in India were officially defined as depressed castes in 1932. Mahatma Gandhi named them Harijan where *Hari* means God, *Jan* means people and thus *Harijan* means people of God. But there was a wild cry, agitation and a strong opposition to the Bill using the word Harijan in the Bombay Legislative Assembly. It was duly replaced by the term scheduled castes in 1938 and it continues to be used as scheduled castes in government records and circulars even today (Kamble 1982).

The expression scheduled castes was first coined by the Simon Commission and embodied in the Government of India Act of 1935. While the castes were listed systematically in the 1931 census of India, the Scheduled Castes (SC) was applied to these castes for the first time in the Government of India Act of 1935. Until then they were known as untouchables, depressed classes or exterior castes. Then the Government of India published a list of scheduled castes under the Government of India (Scheduled Castes) Order, 1936 (Kamble 1982).

During the British rule in India, the British Government's programme of education and social reform, much more than the work of missionaries that paved the way for the mitigation of their social misery. Their educational system created a new generation of intellectuals and reformers who were imbibed with liberalistics ideas. The founding of the Brahma Samaj and Arya Samaj and the teachings of Raja Ram Mohan Roy, Kesav Chandra Sen, Shri Ram Krishna, Swami Vivekanand, all had one common aim – to do away with the evils of caste and to raise the status of the lower caste communities. The Indian National Congress which crystallised the social thinking of the time officially took up the work of uplifting the depressed classes on a national scale (Santhakumari 1982).

Share of Scheduled Castes Population

The population of the scheduled castes in India is 166.6 million as per census 2001 and accounts for 16.67 per cent of the total population of the country. There are 49.6 million scheduled castes children as per 2001 census, out of the total child population of about 35.6 million in the age group of 6-14 years in the country. The scheduled castes

population in India is quite unevenly distributed in the country. Some parts of the country have high scheduled caste concentration while in other areas the scheduled castes communities form only a small portion of the total population. There is hardly any schedule caste community in states/ union territories like Nagaland, Andaman and Nikobar Islands and Lakshadweep or less population, for example, Arunachal Pradesh, Goa, Meghalaya, and Mizoram (Census of India 2001). There is great variation in the style of living and level of development of the different scheduled castes communities in India. There are scheduled caste groups, which are still at the food gathering stage.

Table 1

Total and Scheduled Castes Population in India (1961–2001) Decadal Variation and Sex Ratio

	Decadal Variation		**Sex Ratio**	
Census Year	*Total Population*	*Scheduled Castes*	*Total Population*	*Scheduled Caste*
1961	—	—	941	957
1971	24.8	24.02	930	935
1981	24.66	30.93	934	932
1991	23.85	31.95	927	922
2001	21.54	20.56	933	936

Source: Census of India 2001.

The population of the scheduled castes has been growing at a faster rate than the general population in India over the last five decades. All the last four census enumerations recorded a higher rate of growth in the schedule caste population in India (Table 1). While the rate of growth was 24.02 and 24.80 per cent for the scheduled castes and general population respectively in 1971, the growth rate was 20.56 for the schedule caste population and 21.54 for the general population in 2001. Another interesting observation is that while there has been consistent decrease in the growth rate of the general population, growth rate has been fluctuating in the case of the schedule castes population in India. The scheduled castes population in India grew by 24.02 per cent during 1961-71 and by as high as 30.93 per cent in the subsequent decade. In the next two decades the growth rate showed a downward trend. It was a bit sharp during 1991-2001, growth rate of scheduled castes population dropped from 31.95 in 1991 to 20.56 in 2001. Higher growth rate of the schedule caste population probably reflects the relative backwardness of the schedule castes communities in India.

Another interesting observation about the scheduled castes population in India is that sex ratio (the number of

females per 1000 males in the population) has consistently been higher for the scheduled castes population compared to the general population during the last five census decades (Table 1). In 1961, sex ratio was 941 and 957 for the general and scheduled caste population respectively. In 1971 sex ratio was as high as 935 for the scheduled castes population while it was only 930 for the general population. In the last census (2001) sex ratio in the scheduled castes population was 936, which is higher than the country's sex ratio, 933. Thus, on the whole the sex ratio of the scheduled castes population shows better situation in the matter of gender equality. However, it may be noted that scheduled castes population too has shown a downward trend in the matter of sex ratio during the last three census enumerations.

Educational Progress of the Scheduled Castes Population

One of the challenges faced by India since the independence is the mainstreaming of the socially excluded groups like the scheduled castes. These social groups have been victims of multiple forms of oppression and deprivation. The backwardness of the scheduled castes in India has several dimensions – ecological, economic and educational. The Constitution of India provides for a comprehensive framework for the socio-economic development of the scheduled castes and for preventing their exploitation by the other groups in the country. A detailed and comprehensive review of the scheduled castes problem was taken on the eve of the Five Year Plan and the scheduled caste sub-plan strategy took note of the fact that an integrated approach to the scheduled castes problems was necessary in terms of their geographic and demographic concentration.

Education is the key to social progress and development. It constitutes the major factor in social mobility. Education enables members of society to play new roles enjoyed by industrialisation. The Government of India and the State government have realised the crucial role which education can play in the social progress. They have, therefore, used education as the prime mover in the welfare policies and programmes intended for the scheduled castes. They have also realised that without special facilities the scheduled castes communities would not be able to avail themselves of the educational opportunities offered to them. Accordingly, the scheduled castes are given complete exemption from the payment of tuition fees. They are also given a lump sum grant for their educational accessories, stipends, scholarships, incentive schemes etc. The governments, therefore, are having various schemes for the promotion of scheduled caste education. Generally, the schemes provide scholarships, free textbooks, free/subsidised transports, free boarding and lodging facilities, and mid-day meals. Some primary and secondary schools have been opened in the scheduled caste areas.

Despite the special educational schemes and the efforts made during the last six decades after the independence for the development of the scheduled caste people, the scheduled caste have continued to

remain backward in access to and pursuit of education. They lag behind the general population in educational achievement at various stages of school/higher education. As per 2001 census the literacy rate among the scheduled caste is 54.69 and female literacy rate of the scheduled caste population is as low as 41.90 (Table 2). In comparison the literacy rate of the total population in the country is 64.80 and the female literacy 53.70 (Census of India 2001). However, it may be noted with some level of gratification that the literacy rate of the scheduled caste population has consistently improved during the last five decades. Literacy rate of scheduled caste population, which is 54.69 as per 2001 census, was as low as 10.27 in 1961.

Table 2

Literacy Rates of Scheduled Castes Population By Sex and Urban/Rural Areas

Census Year	*Areas*	*Male*	*Female*	*Total*
1961	Rural	15.06	2.52	8.89
	Urban	32.21	10.04	21.81
	Total	16.96	3.29	10.27
2001	Rural	63.66	37.84	51.16
	Urban	77.93	57.49	68.12
	Total	66.64	41.90	54.69

Source: Government of India: 2007

There is conspicuous gender inequality in the schedule caste literacy rate (Table 2). As per 2001 census data female literacy rate is 41.90 compared to the male literacy rate of 66.64. But a positive trend regarding gender and literacy is that there has been notable improvement in the literacy rate of the females. Female literacy rose from 3.29 in 1961 to 41.90 in 2001.

Within the scheduled caste population there is great disparity in the literacy rate of the rural and urban areas. In the year 1961, literacy rate of the rural population was 8.89 per cent (15.06 per cent male and 2.52 per cent female), whereas in the case of the urban population the rate was 21.81 per cent. Literacy rate was as low as 2.52 in the case of rural females in the schedule caste population in 1961. Although the literacy rate rose substantially in 2001, the rural-urban difference continues to exist. According to the 2001 census, rural literacy rate among the schedule caste population is 51.16 per cent, whereas it is 68.12 per cent for the urban areas.

Enrolment of Scheduled Castes Population

Two aspects of enrolment are considered in discussing school enrolment – the number of children enrolled and the gross enrolment ratio (GER). The first is

the absolute number of students enrolled in a given class or stage of school education (viz., primary, upper primary, secondary and higher secondary level) of school education, regardless of the age of the students (Singh and Raju 2006). GER refers to the enrolment in a class or stage of schooling as percentage of total children of the respective age group in the population.

Table 3

Enrolment of Scheduled Castes Students in School During 1991-2004

(Figures in '000')

Year	*Primary (Class I – V)*			*Upper Primary (Class VI – VIII)*			*Sec./Higher Secondary (Class IX – XII)*		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1991	9709	6328	16037	3137	1556	4693	1878	703	2581
2000	12059	9136	21195	4066	2628	6694	2418	1394	3812
2004*	13762	10995	24757	5100	3597	8697	3228	1990	5218

**Provisional* *Source: Government of India: 2007*

Data on the enrolment of the scheduled-caste students during the period of 1991-2004 (Table 3) shows that the number of students increased from 16037 thousand in 1991 to 24754 thousand at the primary stage, from 4693 thousand to 8697 thousand at the upper primary stage, and from 2581 thousand to 5218 thousand at the secondary and higher secondary stage during the period of 1991-2004. The increase in enrolment during this period has been by 64.78 per cent, 53.96 per cent and 49.46 per cent in primary, upper primary and secondary/higher secondary stages of school education respectively. The pattern of increase in school enrolment of the scheduled castes during the period of 1991-2004 indicates not only larger enrolment but also greater retention of the scheduled caste students at the higher stages of schooling. This is a positive trend as far as education of the scheduled castes is concerned.

Gross Enrolment Ratio

The measure of GER is the percentage of the children of the relevant age group enrolled in school. The data on the GER of scheduled caste children in school (Table 4) too show that there has been good progress in the matter of enrolment of the scheduled caste students in schools. In 1991-92 the GER of scheduled caste children was 102.9 at the primary school, 52.9 at the upper primary level and 84.8 at the elementary level. In the year 2004-05 it rose to 115.3 and 70.2 at the primary and upper primary levels of schooling respectively. The GER above 100 indicates the presence of largely over-aged (and rarely under-aged) children in respective stage of schooling. Late enrolment in school and stagnation generally account for the presence of over-aged children in school. Presence of over-aged children, therefore, is in some way an indication of the relative educational backwardness of the scheduled caste population.

Table 4

Gross Enrolment Ratio of Scheduled Castes Students (1991-92 – 2004-05)

Year	*Primary (Class I – V)*			*Upper Primary (Class VI – VIII)*			*Elementary (Class I – VIII)*		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1991-92	121.4	83.5	102.9	68.9	36.0	52.9	102.3	66.3	84.8
2000-01*	107.3	85.8	96.8	76.2	53.3	65.3	97.3	75.5	86.8
2004-05*	123.3	106.6	115.3	77.9	61.5	70.2	106.5	90.3	98.8

** Provisional* *Source: Government of India: 2007*

Gender Inequality

The unequal participation of females in education as compared to their male counterpart has been one of the striking inequalities that can be seen in education (Yadav 2007). Gender inequality is visible in the schooling of the scheduled caste children also at the different stages (Table 5). However, the situation has been improving over the years, in so far as the difference in the percentage of boys and girls in school education is gradually decreasing. During 1991-2004 enrolment of the scheduled-castes girls increased from 6328 thousand to 10995 thousand at the primary stage, from 1556 thousand to 3597 thousand at the upper primary stage and from 703 thousand to 1990 thousand at the secondary/higher secondary stage.

Table 5

School Enrolment of Scheduled Castes During 1991-2004
Percentage of Boys and Girls

Year	*Primary (Class I – V)*			*Upper Primary (Class VI – VIII)*			*Sec./Higher Secondary (Class IX – XII)*		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1991	60.54	39.46	100.00	66.84	33.16	100.00	72.76	27.24	100.00
	(9709)	(6328)	(16037)	(3137)	(1556)	(4693)	(1878)	(703)	(2581)
2004*	55.59	44.41	100.00	58.64	41.36	100.00	61.86	38.14	100.00
	(13762)	(10995)	(24757)	(5100)	(3597)	(8697)	(3228)	(1990)	(5218)

** Provisional* *Parenthesis figures show the enrolment in thousand*
Source: Government of India: 2007

While in 1991 girls constituted 39.46, 33.16 and 27.24 per cent of the students in the three levels of schooling (primary, upper primary and secondary/higher secondary), in 2004 the respective figures rose to 44.41, 41.36 and 38.14. In other words, the relative growth in school enrolment has

been higher for girls than for boys. This is again another positive trend towards social development in the case of the scheduled castes.

Another index to measure gender equality in schooling is the number of girls per 100 boys enrolled in school. Data in this matter (Table 6) show that, although gender disparity in the schooling of scheduled caste children still exists, there has been substantial improvement in narrowing down the gap between boys and girls in school enrolment during the last five decades. In 1950-51 the number of girls was 39, 18 and 16 for 100 boys in the primary, upper primary and secondary/ higher secondary stages of school education respectively. In 2004-05, the corresponding figures were 88, 80 and 71 at the three stages of schooling respectively. This again indicates a steady positive trend towards gender equality in the schooling of scheduled castes children.

Table 6

Number of Girls per Hundred Boys Enrolled in School: 1950-51 to 2004-05

Year	*Primary (Class I – V)*	*Upper Primary (Class VI – VIII)*	*Secondary/Higher Secondary (Class IX – XII)*
1950-51	39	18	16
1960-61	48	32	23
1970-71	60	41	35
1980-81	63	49	44
1990-91	71	58	50
2000-01	78	69	63
2004-05*	88	80	71

**Provisional* *Source: Government of India: 2007*

Gender Parity Index (GPI) is yet another measure of gender equality in education. GPI is the ratio of girls' GER to boys' GER at a given level of education. When the GPI shows a value of ONE at a level of education, opportunities for and access to education are available equally to both girls and boys at that level of education.

Table 7

Gender Parity Index of Scheduled Castes at School Education In 1991-92 and 2004-05

Year	*Primary (Class I – V)*	*Upper Primary (Class VI – VIII)*	*Primary and Upper Primary (Class I – VIII)*
1990-91	0.69	0.52	0.63
2004-05*	0.86	0.79	0.85

** Provisional* *Source: Government of India: 2007*

Two observations may be made on the data on GPI presented in table 7. First, the GPI is much higher at the primary level of school education than at the upper primary level. This is the situation in the case of the data in both 1991-92 and 2004-05. In 1991-92 the GPI was 0.69 and 0.52 at the primary and upper primary stage respectively, while it was 0.86 and 0.79 at the respective stages of schooling for these two periods. This finding probably indicates a higher rate of drop out among the girls after the primary stage of education compared to the boys. The second observation is that there has been a definite rise in the GPI from 1991-92 to 2004-05 at both the levels of school education. The increase has been from 0.69 to 0.86 at the level of primary school and from 0.52 to 0.79 at the upper primary stage of school education. If both the primary and upper primary stages of education are taken together the rise in the GPI has been from 0.63 in 1991-92 to 0.85 in 2004-05. The finding is yet another indication of the positive trend towards gender equality in the case of the scheduled caste, although inequality still persists.

Dropout Ratio

A school dropout is a student who leaves school before the completion of the school stage or at some intermediate or non-terminal point of a given stage of school education (Singh and Raju 2006). Thus the term 'dropout' may mean (i) one who has discontinued education before completing the last stage of education for which he/she was enrolled or (ii) one who has discontinued education before attaining a specific stage in education (like primary or secondary stage of schooling).

High dropout rate in school education is attributed to poor socio-economic situation of the family. This is particularly true in the case of girls as poor families with limited resources would rather invest money in their sons' education and engage the girls in tasks such as domestic chores. Although primary education is technically free, there are costs other than fees (such as for books and other learning materials, and uniform etc.) that impose financial burden on low income families. Reasons for dropout from school, other than poverty, include inaccessibility of school, inadequate school infrastructure and low emphasis on education.

Table 8

Dropout Rate of Scheduled Castes Students:1990-91 and 2004-05

	Classes I–V			*Classes I-VIII*			*Classes I-X*		
Year	*Boys*	*Girls*	*Total*	*Boys*	*Girls*	*Total*	*Boys*	*Girls*	*Total*
1990-91	46.3	54.0	49.4	64.3	73.2	67.8	74.3	83.4	77.7
2004-05*	32.7	36.1	34.2	55.2	60.0	57.3	69.1	74.2	71.3

**Provisional* *Source: Government of India: 2007*

The data on dropout among the scheduled caste school students (Table 8) show that majority of them do not complete school education. If one takes Class X as the terminal point of schooling only a minority of the scheduled castes students complete schooling. When one considers primary education as the terminal point, 34.2 per cent of the students enrolled in Class I dropout by the end of the primary stage (or Class V), and 57.3 per cent by the end of the upper primary stage (Class VIII).

If one considers Classes V, VIII and X as distinct terminal stages of school education, the rate of dropout is lowest at the primary stage, at the end of which 34.2 per cent of students enrolled in class I dropout. By the end of Class VIII another 57.3 per cent of them dropout and at the third stage (Class X) yet another 71.3 per cent dropout.

Another observation on the data on dropout rate of the scheduled castes students is on the gender disparity. As can be expected, dropout rate on the whole is higher among the girls. But the difference is not alarmingly higher. At the primary stage of schooling it is more or less same as per the data of 2004-05 – 32.7 for boys and 36.1 for girls (marginally lower for girls). At the upper primary stage the dropout rate is 55.2 and 60.0 for boys and girls respectively. Gender difference in the dropout rate is similar at the secondary stage too – 69.1 for boys and 74.2 for girls. Thus, the data here indicate that the problem of dropout is equally serious for both boys and girls.

Comparison between the data of 1990-91 and 2004-05 (i.e. a gap of 15 years) shows that the situation is changing for the better. While the dropout rate in 1990-91 was 49.4, 67.8 and 77.7 at the end of the primary (Class V), upper primary (Class VIII) and secondary (Class X) respectively, the corresponding figures for the year 2004-05 were 34.2, 57.3 and 71.3. The improvement is applicable equally to boys and girls. The trend is positive, but in absolute terms the rate of dropout is still high to be of concern. One may attribute this positive trend to the educational initiatives taken by the government and non-government agencies involved in the education of the scheduled caste, in particular the special government schemes and programmes, such as scholarships, special grants, mid-day meal, hostel facilities, etc.

Conclusion

Scheduled castes constitute 16.67 per cent of the population in India. But in terms of absolute number they form a sizeable section – 166.6 million. By this very fact any issue about them would be a social concern of the country as a whole. Although scheduled castes population has a better record in the matter of sex ratio compared to the general population in India, they remain backward in many regards. One of the areas of social concern in regard to the scheduled castes is that of education. They continue to lag behind the rest of the population in the matter of access to education and educational pursuit. Enrolment of scheduled caste children in primary education has yet to reach the desired level. There is the additional problem of dropout among those who mange to enter the school. There is also the issue of gender disparity in the education of the scheduled castes.

There are several programmes of intervention for the educational development of the scheduled caste population. However, the facilities provided under the various schemes do not seem to be adequate to cater to the special needs of scheduled castes education. As a result many of the scheduled caste children do not get the opportunity to attend the school. There have to be different plans, programmes and strategies to reach education to every nook and corner of the scheduled castes areas in order to ensure that every scheduled castes child is enrolled in school and regularly attends the classes. The programmes of education have to be expanded to cover every scheduled castes village with at least a primary school. The school and its infrastructure should be good enough to attract the scheduled castes children and activities in the school should be interesting and suitable to the learning capabilities of the scheduled castes children so as to retain them in the school until they complete the schooling. If careful attention and planning are done in the provision of school infrastructure facilities and the teaching-learning processes within the school, enrolment, retention and achievement of scheduled caste children in school will become a habit among the scheduled castes population.

Notes

Article 341. (1) The President [may with respect to any State [or Union territory], and where it is a State, after consultation with the Governor thereof,] by public notification, specify the castes, races or tribes or parts of or groups within castes, races or tribes which shall for the purposes of this Constitution be deemed to be Scheduled Castes in relation to that State [or Union territory, as the case may be]

(2) Parliament may by law include in or exclude from the list of Scheduled Castes specified in a notification issued under clause (1) any caste, race or tribe or part of or group within any caste, race or tribe, but save as aforesaid a notification issued under the said clause shall not be varied by any subsequent notification (Government of India 2008).

Article 366 (24):"Scheduled Castes" means such castes, races or tribes or parts of or groups within such castes, races or tribes as are deemed under article 341 to Constitution (Government of India 2008).

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Aggression in Children : Reasons and Remedies

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Abstract

Children are the creation of God. They are born with all happiness and spread lot of joy all around. Some turn out to be very happy, satisfied, calm and balanced youngsters while others become hostile and problem children. As hostile youngsters, they cause lot of harm to themselves and to those around them. There are definite reasons for their hostile behaviour which is quite often due to the environmental reasons. Parents, teachers and other factors are included in the environment. Studies have shown that environment plays a major role in acquiring the aggressive traits by the children. Awareness about the causes of aggression and the ways to check as well as control will help in preventing, minimising as well as controlling aggression in children.

"Children are sick of being called 'the future'. They want to enjoy their childhoods, free of violence, now". - Paulo Pinheiro, 2007, UN General Assembly

Aggression in Children

Introduction

In psychology, as well as in other social and behavioural sciences, aggression (also called *combativeness*) refers to behaviour between members of the same species that is intended to cause pain or harm. According to Maslow (1962), aggression is not an essential part of human nature. It is a reaction to circumstances in which essential requirements of our nature are unfulfilled.

What do temper tantrums, teasing, rage, hate, and revenge have in common? All may stem from emotional pain inflicted by parents or others, said Joan Arehart-Treichel, a child psychiatrist.

Aggression in children and its causes and effects have always been a matter of great concern with the policy makers of our country. Their concern with regard to the protection of the child, prevention and prohibition of all such activities that may cause mental and physical harm to the child is evident from

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the fact that they have suggested various steps to ensure the protection of the child. In 1999, the Committee on Economic, Social and Cultural Rights adopted a General Comment on 'The Right to Education' which stated that corporal punishment is inconsistent with the fundamental guiding principle of international human rights.

Article 21 of the Constitution protecting the 'Right to Life' is the first point of reference. The Child Rights Charter 2003 of India specifically states "All children have a right to be protected against neglect, maltreatment, injury, and trafficking, sexual and physical abuse of all kinds, corporal punishment, torture, exploitation, violence and degrading treatment." Prohibition and elimination of corporal punishment in schools is identified as a priority in the 2005 National Plan of Action for Children and the report on child protection in the National Plan for 2007-2012. The National Policy on Education (1986, modified 1992) states that 'corporal punishment will be firmly excluded from the educational systems.'

Two out of three school going children in India are physically abused says the national report on child abuse by the Ministry of Women and Child Development in 2007. The crime is unchecked in every single district of the country. In spite of such recommen-dations and precautions for the parents, schools, teachers and law makers, the children especially of the present times are subjected to hostile treatment and are very aggressive. With this aggressive behaviour, they inflict harm upon themselves as well as harm all those who are around them.

Their aggression is not without any reason. All children have moments when they lash out in anger by using coarse language, creating commotion, throwing or kicking objects. At times their aggression crosses all limits and appears alarming and out of control. The parents, teachers and others around them find it difficult to understand this behaviour and control it. Aggressiveness is a result of narcissistic anger, of the desegregation of the self, which leads to its fragmentation (Kohut, 1996). Children who experience a hostile family environment are afraid, feel isolated, threatened and unable to defend themselves.

This extreme frustration leads to deep emotional scars and these children do not develop the ability to contain themselves. At the same time the anger and pain caused by these scars continue to act, and anxiety underlies their behaviour. In attempting to adapt to this hostile environment, children may, amongst other strategies, turn to aggressive behaviour. A number of studies have been carried out all over the world to understand the reasons behind the aggressive behaviour of children. It has been established by various research studies that children who are physically disciplined by hitting or any other corporal punishment are more anxious and aggressive as compared to those who are disciplined by other approaches.

In a research finding, it was observed that the mothers of Thailand hardly use physical methods to discipline their children and this trend was also seen in mothers from China, The Philippines, Italy and even in India. The mothers in Kenya however use physical means to discipline their children. In countries where physical discipline was more

common and culturally accepted, children who were physically disciplined were less aggressive and less anxious than children who were physically disciplined in countries where physical discipline was rarely used. In all countries, however, higher use of physical discipline was associated with more child aggression and anxiety.

In Thailand, a country where peace-promoting Buddhist teachings are predominant, mothers rarely spank their children or use other forms of physical discipline. In Kenya, on the other hand, where use of physical discipline is common and considered normal, mothers spank or engage in similar disciplinary tactics. In a study conducted in Kenya in 2003, 57 per cent of grandmothers reported caning, pinching, slapping, tying with a rope, hitting, beating, and kicking as forms of discipline they had used. Whether a violent video game or corporal punishment, children learn aggressive attitudes and act them out when they are exposed to violence. They don't learn peaceful ways of solving conflict when they are exposed to violence.

Forms of Aggression in Children

Children with tendencies of aggressive behaviour have a mindset of intentionally hurting others. Aggression in them can manifest in a number of ways including hitting, kicking, spitting, biting, pushing and throwing objects. Aggression in children is of four types:

- non destructive aggression – It is an aggression which is inborn. This type of aggression sets in drive in children to excel in academics, sports and any other fields. This kind of aggression should be cultivated by parents as well as teachers.
- the second kind of aggression is related to the urge of obtaining food. This type of aggression is also inborn.
- the third type of aggression is related to displeasure. The temper tantrum, getting into rage etc. falls in this category.
- the fourth kind of aggression is pleasure related aggression. Teasing and taunting come under this. The third and fourth type of aggressions are not inborn. Both are forms of hostile aggression and are activated by emotional pain.

What are the causes of Aggression?

Children at times are not able to express themselves because of poor language skills as compared to the adults. This helplessness and inability of expressing their feelings verbally, at times force a child to act aggressively.

In a study conducted by UNESCO in 1996-97 of 5000 students of 12 years of age across 23 nations, it was found that the children indulged in more than three hours of TV viewing. This, it was observed was next only to school attendance in terms of time spent on any activity. The study found that children turn to violence to solve problems as they watch lot of TV programmes related to violence.

In another study carried by Centre for Advocacy and Research (CFAR) in 2001, the impact of media violence was studied on children between the age group of 6 to 12 years. The study was carried out in five Indian cities (Delhi, Lucknow, Calcutta, Hyderabad and

Ahmedabad). The study reported high aggression in learnt behaviour.

Children in the United States spend three to four hours each day watching TV which has a great influence on their future behaviour. More than 60 per cent of these programmes contain some violence. About 40 per cent of these programmes have heavy violence (Rowell Huesmann, 2006). There are other factors also that contribute to the problem of aggression in children. They are:

1. *Video Games*: - Video games have greatly influenced the children these days. Children are spending lot of time playing video games and most of the video games have violence. Video games were considered to be more harmful in increasing aggression than violent movies or television shows due to their interactive and engrossing nature of time (Karen E. Dill and Craig A. Anderson, Sept 2007).
2. *Corporal Punishment at School.*- Child is the father of man. He merely reflects what he has been accorded. When the teacher at school uses corporal punishment on him for small offences, that is more common these days, he reciprocates the same. The child, during his adult days, if not given something he is duly entitled to, all that he can actually think of is how he was flogged by the teacher and was made to do something, and it is religiously followed by the child. It kindles violence when he is not given his due. The attitude of might is right automatically gets impressed on him. (Charles Karelis, 2009),
3. *There are other causes of aggression too.* Some children act aggressively because that is what they have learnt. They have seen parental argument, divorce and work schedule of parents. As a result of the family environment, they have been treated aggressively. This way they learn aggression.
4. *In addition, social problems*, separation, limited communication skills, stress, abuse, temperament, heredity factors, substance abuse, stressful family life, brain damage, imitation of aggressive behaviour, unfulfilled needs and desires, envy, desperation etc. can be some other causes of aggression in children.

Warning Signs of Aggression in Children:

The warning signs of aggression can always be seen in children. Higher the signs of aggression more will be the threat. An aggressive child can cause harm to himself and to those around him. Some of these warning signs are:

- Uncontrollable outbursts of anger at home or outside home.
- Taking weapons like knife, scissors etc. to school without any requirement.
- Suicide attempts or threats of suicide
- History of family in attempting suicide or violent behaviour
- Selection of violent movies
- Always blaming others and destiny for misfortune
- Morbidity in conversation
- Any mental illness
- Bullying, beating or indulging in some kind of violence
- Difficulty in making friends
- Overprotection of parents or family

How to handle Aggressive Children

According to social psychology, violence is a learned behaviour. Criminals or violent children are not born with these traits. They observe aggression around them and imitate it. The media plays a significant role in assimilation of hostile traits and ideas in children. These factors contribute in aggression. Some suggestions to handle the children with aggression are:

- constant and consistent checking of unwanted behaviour is the basic requirement for managing or reducing aggression in children.
- the surroundings should provide calm and peaceful ambience to children. This will help reduce the stress level in them.
- caring and patiently dealing with them will also help. Giving quality time to children can make them less aggressive.
- removing stimulants that trigger violent reactions or behaviour.
- Providing them with ways means and opportunities like sports, games to utilise excess energy.
- taking note as well as keeping a watchful eye on aggressive tendencies of the child.
- firm but gentle approach works best with an aggressive child.
- selection of right type of TV programmes for children.
- introducing them to yoga and meditation.
- letting the child know that you want him/her and you care for him/her.
- acknowledging their feelings within limits.
- avoiding corporal punishment for an aggressive child as it can become counter productive.
- keeping a watchful eye on the company your child keeps
- controlling your own anger so that they don't imitate you.
- providing them suitable reading material with stories on the ill effects of anger.
- encouraging the child to talk about the problems with you. The more you talk to a child, the easier they will find it to establish an equation with you. Soon they will use their own vocabulary and be able to communicate their frustrations and feelings verbally.
- giving them positive vibrations instead of blaming, punishing and publicly ridiculing them,
- be cautious of your own reaction to situations. If you are meeting every situation with aggression, you are passing it on to the child.
- praising good behaviour of the child as that is very important in correcting the aggressive tendencies of the child.

Conclusion

No matter what we do, children do show aggression at times. When this happens, we need to keep a close eye on children and reach out to them before such a flashpoint may arise. At times like these, children need to be guided as calmly as possible.The hostile aggression in children is greatly influenced by the way their parents and teachers treat them. Physical, emotional and any other type of unpleasant treatment meted out to these children gets reflected in their behaviour.

Emotional scars are left on the mind of the child by the parents and teachers at times unknowingly and unintentionally which finally leads to hostile aggression. To avoid the hostile aggressive tendencies in children, it is important to remember that children also have feelings. This does not mean that we should not be firm .We have to be role models as well as watchful gardeners. Children should be led into the right paths, not by harshness, but by influence. Children have never been very good at listening to their elders, but they have never failed to emulate them.

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Cooperative Learning and Social Development in Elementary Classroom

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Abstract

Cooperative learning has sufficient scope for accommodating social goals, goals that could enrich the beauty of human solidarity via celebration of multidimensional perspectives. Our society considers the elementary class as a laboratory. Use of cooperative learning in elementary classrooms helps in achieving the overall goals of education because they incorporate intellectual, social and psychological aspects of education and enhance social development. This article is an introduction to cooperative learning and its impact in social development. This also discusses the reason for using cooperative learning strategies in elementary classes.

What is Cooperative Learning?

Cooperative learning is the instructional use of small groups so that students work together to maximise their own and each others learning. In other words, it is a teaching strategy, which allows students to work together in groups with individuals of various talents, abilities and background to accomplish a shared goal. It is based on the philosophy of education that assumes that the aim of education is to provide conditions in which the natural curiosity, intelligence and expressiveness of students will emerge and develop (Kagan, 1992).

In cooperative learning situations, learning is considered as a unified, personal and social experience that best happens in a web of relationships. All group members benefit from each other's efforts, recognising that all group members sharing the responsibility of outcome, knowing that one's performance is mutually caused by oneself and others, and feeling proud and jointly celebrating the group's achievement.

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Cooperative learning explicitly builds cooperation skills by assigning roles to team members and establishing norms for conflict resolution. The proponents of cooperative learning believe that knowledge is constructed and continuously reconstructed by individuals and groups.

Models of Cooperative Learning

In recent years there has been a great deal of development work on cooperative learning and great progress has been made in developing strategies that help students to work effectively together. The contributions of three teams led respectively by Roger and David Johnson, Robert Slavin and Shlomo Sharan have been particularly notable, but the entire cooperative learning community has been active in exchanging information and techniques, and conducting and analysing research. The result is a large number of effective means for organising students to work together. These range from systems for teaching students to carry out simple learning tasks in pairs to complex models for organising classes and even schools in learning communities that strive to educate themselves.

Cooperative learning procedures facilitate learning across all curriculum areas and ages, improving self-esteem, social skills and solidarity and academic learning goals ranging from the acquisition of information and skill through the modes of inquiry of the academic discipline.

Cooperative learning models are based on two principles, competition and cooperation. Some developers organise teams to compete against one another while other emphasises cooperative goals and minimise team competition. Johnson and Johnson have analysed the research and argue that the evidence favours cooperative goal structure, but Slavin argues that competition between teams benefit learning.

Johnson and Johnson's model emphasise the development of what they call positive interdependence or cooperation where collective action celebrates individual differences. Between 1898–1989, over 575 experimental and 100 correlational studies where conducted by a wide variety of researchers in different decades with different age, subject areas and in different settings. One of the issues addressed by this research is the type of interaction pattern found within cooperative, competitive and individualistic situations. A meta analysis of all studies (Johnson and Johnson, 1989) found that the average person cooperating performed at about 2/3 a standard deviation above the average person learning within a competitive or individualistic situation. Positive interdependence model was developed by David Johnson and Roger Johnson which is highly versatile and comprehensive; it blends the goal of academic inquiry, social integration and social process learning.

Because schools socialise children to assume adult roles and because cooperation is so much a part of adult life, one might expect that cooperative activity would be emphasised. However this is far from true. Among the prominent institutions of our society, the schools are least characterised by cooperative activity. Students have long

experienced cooperative activity in laboratory groups and project group, but these activities occupy a small portion of a student's schooling. Most of the time students work independently and they are continually in competition with one another for grades, praise and recognition (Slavin 1985).

Methods of Cooperative Learning

Cooperative learning methods are structured, systematic instructional strategies capable of being used at any grade level and in most school subjects. Some of the well-known methods of cooperative learning such as Cooperative Integrated Reading and Composition (CIRC), Jigsaw II, Student- Teams-Achievement Divisions (STAD) and Teams-Games-Tournaments (TGT) are developed by Robert Slavin. Steven, Madden, Slavin and Farnish (1987) have developed CIRC which is a comprehensive programme for teaching, reading and writing language arts. In this method, to enhance both positive interdependence and individual accountability, the evaluation of students is based on improvements in individual achievements that are calculated as a team score. Jigsaw II, developed by Slavin (1980b) is similar to original Jigsaw in the sense that it too strongly advocates students to learn from one another. In addition to group work evaluation as it is in the original Jigsaw, Jigsaw II stresses on individuals' improvement evaluation. Even though its activities aim at bringing positive interdependence, the evaluation system of this method mostly focuses upon individual accountability of students.

Student Teams-Achievement-Divisions is another popular method of cooperative learning which was developed by Slavin (1978). Like Jigsaw II, in STAD, individuals are evaluated based on their improvements over their own past performance. Individuals' points are also combined to recognise teams. That is team recognition is based upon individuals improvement. Teams- Games-Tournaments is another method, developed by Slavin (1991). Although it considers positive interdependence, TGT's evaluation system is more focused upon posing individual accountability.

Cooperative learning is an innovation, where it is easy to organise students into pairs and triads. And it gets effects immediately. The combination of social support and the increase in cognitive complexity caused by the social interaction have mild but rapid effects on the learning of content and skills. In addition, partnership in learning provides a pleasant laboratory in which to develop social skills and empathy for others. Off-task and disruptive behaviour diminish substantially. Students feel good in cooperative settings and positive feelings toward self and others are enhanced (Joyce and Weil 2005).

Constructivism and Cooperative Learning

The National Curriculum Framework – 2005, has talked in a great length about constructivist paradigm. It advocates the need to recognise the child as a natural and active learner, and knowledge as the outcome of the child's own activity. Thus, the learning plans need to nurture and

build on his active and creative capabilities. It suggests that the curriculum must enable children to find their voices, nurture their talents and satisfy their curiosity to do things, to ask questions and to pursue investigations, sharing and integrating their experiences.

Constructivism views all of our knowledge as 'constructed' because it does not reflect any external transcendent realities, it is contingent on conventions human perception, and social experience. Constructivist model of learning emphasises meaning-making through active participation in socially, culturally, historically and politically situated contexts. A crucial element of active participation is dialogue in shared experiences through which situated cooperative activities are necessary to support the negotiation and creation of meaning and understanding.

Jonassen (1990) supports collaborative construction of knowledge through social negotiation while summarising what he refers to as the implementation of constructivism for instructional design. One of the general principles of learning that is derived from constructivism is; learning is a social activity: our learning is intimately associated with our connection with other human beings, teachers, peers, family as well as casual acquaintances.

Social constructivists view learning as a social process. It does not take place only within an individual, nor it is a passive development of behaviour that are shaped by external forces. Meaningful learning occurs when individuals are engaged in social activities. In the Social Development theory of Vygotsky (1978), the major frame of theoretical frame work is that social interaction plays a fundamental role in the development cognition.

Significance of Cooperative Learning in Elementary Classes

Children learn from their total experiences. In the classroom too, learning is more than simply gathering and memorising facts, and the child has many learning experiences which are indirect and informal. The teacher is responsible for providing experiences that will contribute to pupil growth. He assists the child to acquire the pattern of behaviour necessary for successful living in his society.

Social contact is necessary for normal development. The child develops through the stimulation which he receives from other people. Peer groups are really the distinct society of the child. This is the area in which the child is able to make the transition from his family role to the status of an adult. Belongingness is a basic need which once more asserts itself within the peer relationship. Being in a group, the child gains:

A more realistic concept of self. One of the most significant values for the child in being a member of a group of equals lies in the fact that he has a chance to find out more about what kind of person he really is through this experience. He has an opportunity to build a more realistic concept of himself as a person apart from his membership in a family.

Self confidence. Besides seeing himself in a more realistic light, the child can gain self-confidence from membership in a group of his own age. The child feels himself like others in the pre-primary

school. He can identify with them with less strain than when he tries to identify with adults. He finds strength and safety through group membership. This feeling of belongingness in a group has special value for the less confident child.

When a child first comes to a structured educational setting, one of the teacher's goals is to help the child move from being aware only of himself or herself to becoming aware of other children. At this stage of learning, teachers are concerned that children learn to share, take turns and show caring behaviours for others. Structured activities which promote cooperation can help to bring about these outcomes. One of the most consistent research findings is that cooperative learning activities improve children's relationships with peers, especially those of different social and ethnic groups.

When children begin to work on readiness tasks, cooperation can provide opportunities for sharing ideas, learning how others think and react to problems and practicing oral language skills in small groups. Cooperative learning in early childhood can promote positive feelings toward school, teachers, and peers. These feelings build an important base for further success in school.

Cooperation is working together to accomplish shared goals. Within cooperative activities individuals seek outcomes that are beneficial to themselves and beneficial to all other group members. In cooperative learning each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement.

Working alone is a long standing tradition that is beginning to fade in favour of students working together in groups (Johnson, Johnson and Holubec, 1993). It is true that a revision of curriculum and pedagogy learning towards cooperative ways of learning is on the top priority agenda for implementation at all levels.

Cooperative Learning and Social Development

Cooperative learning has social benefits as well as academic. One of the elements of cooperative learning is the development of social skills. Children learn to take risk and to contribute for a common good. They are able to see points of view of others than their own. Such benefits contribute to the overall satisfaction of learning and schooling. Students work with classmates who have different learning skills, cultural background, attitudes and personalities. Social interaction improves communication skills that become a necessity to function in society.

Young children are curious about each other. The child's first response to other children is to look them over, as though he is examining animate objects in his environment. Children's motivation to work in elementary school depend on the extent to which their basic psychological needs are met. For a healthy physical intellectual, emotional and social development the child needs opportunities for various types of interaction. Cooperative learning increases student motivation by providing peer support. One of the elements of cooperative learning is positive interdependence. In such learning strategy, each group member

has a unique contribution to make to the joint effort because of his/her recourses and role and task responsibilities.

To work successfully in a cooperative learning team, however, students must also master interpersonal skills needed for the group to accomplish its task. Through cooperative learning strategies students can develop the skills of leadership, decision-making, trust building, communication and skills of conflict management which are conducive to social development. The cooperative learning students were more likely than other students to use the cooperative behaviours they were taught when they worked with new classmates (Johnson, 1995; Slavin, 1995).

The essential components of cooperative learning are positive interdependence, face-to-face promotive interaction, individual and group accountability, interpersonal and small group skills and group processing. (Johnson, Johnson and Holubec, 1993). Systematically structuring those basic elements into group learning situations help to ensure cooperative efforts and enables the disciplined implementation of cooperative learning for long-term success.

One of the best services that can be done to children is to help them understand that they cannot live to themselves alone. In a world so complicated that each of us is dependent on the cooperation of other persons. It stands to reasons that happiness and social adjustment are inseparable. Cooperative learning strategies are capable to impart such an incredible idea among children. Students in cooperative learning group were more likely to attribute success to hard work and ability than to luck (Slavin, 1995).

Cooperative learning as a constructivist teaching method is recognised as a valuable component of classroom learning. The social environment provided by cooperative learning offers strategies for students to interact with their peer. The investigator is indented to develop a model based on cooperative learning principles and constructivist ideas to enhance the social development of elementary school children.

Conclusion

Cooperative learning is sufficiently flexible that it can be used at all levels of education. Research strongly supports that advantages of cooperative learning are higher group and individual achievement, higher quality reasoning strategies, more meta cognition, more new ideas and solutions to problems. In addition students working in cooperative groups tend to be more intrinsically motivated, intellectually curious, caring of others and psychologically healthy. Effective cooperative learning experiences increase the probability of children's success throughout their school years. As teachers attempt to implement the reforms of the new economy, the needs of a literate democratic culture and the expectations of an adequate social structure, many have turned to innovative instructional approaches for help. Cooperative learning principles are such an approach that loom large in the professional literature and are beginning to appear in practice.

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Relation between School Environment Variables and Mathematics Achievement among School Students in Bongaigaon District

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Abstract

This article focuses on differences in mathematics achievement among school students in Bongaigaon district of Assam. The researchers conducted a comparative study between the groups of students divided on basis of different school environment variables in order to study the variation of achievement in mathematics. Data came from the test scores of 580 secondary school children in Bongaigaon district. An analysis of data indicates that the school environment does have an impact on mathematics achievement. This indicates the important responsibility of schools towards providing equitable education to all sections of children especially in developing countries.

Introduction

Mathematics has always been an integral part of any school curriculum. The importance of mathematics as a tool in various subjects and an instrument for developing discipline of thought and logical reasoning cannot be undermined. The purpose of this study was to examine the possible associations between the school environment and the mathematics achievement of students.

Schools provide students coming from different backgrounds with similar opportunities for learning. Traub (1972) was of the opinion that if children are to develop their intellectual potential they must be provided with an intellectually stimulating environment. Lack of proper

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infrastructure has been a major concern area for many years. For effective teaching to take place, a good method must be adopted by a teacher. The teacher today has to face the difficult task of arranging suitable learning experiences by utilising suitable and interesting learning techniques (Taori S, 2001). The impact of the teacher-student ratio on student performance is another factor that has been explored in this paper. When the classrooms are crowded, they present a particular burden to teachers who are not able to relate to individual pupils. Research into homework and its effect on mathematics is examined as part of this study on the school environment. As a general rule, textbooks remain the principal instructional material in the classroom. School students face problems due to non-availability of textbooks in the market in the beginning of the session. In a paper Heyneman (1978) reviewed studies from twelve less-industrialised countries on the relationship between textbook availability and academic achievement. He concluded that the availability of books was the most consistent school factor in predicting academic achievement.

In the light of the above consideration, this study was conducted to investigate the school factors related to mathematics achievement among the school students of Bongaigaon district where such is not available.

Method

Sample

Bongaigaon district of Assam was the field area for the study. In order to cover the different strata of population in the study area, a stratified random sampling of schools has been taken from the list of schools in the district. The total number of schools surveyed was 30. For the purposes of this study, students from Classes VII and IX were chosen. Using simple random sampling and lottery method ten students each from Classes VII and IX from each school were selected. The total number of samples in Class VII was 290 and Class IX was 290. The gender division among the students was 155 boys, 135 girls in Class VII and 163 boys and 127 girls in Class IX.

Tools

To test the mathematics achievement of students a single mathematics score was devised from two sources. i) Mathematics marks of previous year's annual examination collected from school records and scores achieved by students in a test ii) Investigator prepared on mathematics knowledge which included knowledge of the basic concepts, pattern recognition, spatial skills, and logical reasoning.

The scores were combined into a single score as a weighted mean of the variables which represented mathematics achievement of the student. A pilot test of the study was conducted before administration of the final test. The tests administered to the students were checked for internal consistency through reliability analysis. Cronbach alpha (á =.948) for Class IX and Cronbach alpha (á =.931) for Class VII showed high reliability co-efficient.

For purposes of this study, the attributes for school environment have been taken as:

(a) School management (b) School area (c) Physical facilities like infra-structure and text book availibility (d) Teacher-student ratio (e) Teaching methods used (f) Daily homework (g) Specific training for teachers.

Analysis

A comparative study between the groups of students divided on the basis of their school management, school area, physical facilities, teacher – student ratio, teaching methods, daily homework and specific training for teachers was conducted. The data was entered into a SPSS spreadsheet and was analysed accordingly. The tests administered to the students were checked for internal consistency through reliability analysis.The mean and standard deviation of the combined scores were calculated, t-test has been used to test the variance in the mean of the combined score for the different classes based on different groupings. Values having different superscripts (a,b) differ significantly (P<0.05) between groups/ levels in a class.

School Management

The grouping under school management was made on the basis of government schools and private schools. Government schools are those which are funded and managed by the state government while the private schools were those set up by a society or group of individuals with no government funding.

Table 1

Mean Scores of Students divided on basis of School Management

Class		*School Management Group*							
		Government			*Private*			*t*	
VII	Mean+SD	25.31	± 11.58	a	41.07	± 13.37	b	-9.078	**
	N	230			60				
IX	Mean+SD	26.23	± 13.50	a	48.31	± 14.19	b	-11.165	**
	N	230			60				

In case of school management the results of both classes VII and IX were of a similar nature. For both cases the *t* value was less than the critical value of t (-1.96) at 5 per cent level of confidence. This implied that the null hypothesis should be rejected in both the cases and there were significant differences in the means of the two groups for both Class VII and Class IX. This leads to the implication that the school management did affect the combined score of the students for the sample under investigation.

In India, the schooling offered by the state government has minimal fees. The other categories of schools are those run and partly funded by private individuals, private organisations and religious groups, especially by the Christian missionaries. Given that public schools are free of cost and private schools charge fees we would expect that the students attending private schools come from more socio-economically privileged backgrounds. While 94 per cent of the private schools reported that they got

adequate support from parents and guardians, it was reverse in case of government schools. Parents whose children studied in government schools especially in rural areas were unaware of their roles and responsibilities in improving the school environment.

Very few government schools can show that their children's learning is commensurate with their age or grade. These schools may guarantee schooling by increasing student attendance substantially, especially as a result of mid-day meals. However, the quality of education received in these schools is also of vital importance. Facilities in private schools are better and teachers have greater access to them than in government schools. Effective utilisation of teaching-learning resources, however, remains limited to a small number of schools.

Related studies along this line have reported analogous findings (Bashir 1994, 1997; Govinda and Varghese 1993; Kingdon 1994, 1996b; Tooley and Dixon 2003). The conclusions in these studies were of similar nature and show that children in private schools have higher test scores and higher attendance rates. Recently, Muralidharan and Kremer (2006) corroborate the findings in earlier studies with nationally representative data on rural primary schools where it is shown that students from private schools do better than their government school counterparts.

India needs proper government intervention in the area of education because education driven by profit motive cannot benefit the masses. The children in these schools come from the poorest of families — those who cannot afford to send their kids to private schools elsewhere.

School Area

Here the schools were divided as to whether they were located in an urban or rural area.

Table 2

Mean Scores of Students divided on basis of School Area

Class		*School Area Group*									
		Urban				*Rural*				*t*	
VII	Mean+SD	32.50	±	13.60	a	23	±	11.41	b	6.44	**
	N	170				120					
IX	Mean+SD	37.02	±	16.24	a	23.14	±	12.76	b	8.14	**
	N	160				130					

There were significant differences in the means of the two groups for both Classes VII and IX. This leads to the implication that the school area did affect the combined score of the students for the sample under investigation.

Education in rural areas are characterised by low income levels and poor quality of life with regard to infrastructure, transportation facilities, health care , school accessibility and also a low level of parental education. Rural

family incomes are lower than urban family incomes and rural youth are more likely to leave school than their urban counterparts and find work to make up for shortfalls in their family budgets.

During the survey, it was found that the level of school attendance in urban areas was higher (above 75 per cent) as compared to rural areas (50 per cent-75 per cent). Low attendance was recorded in rural areas particularly during harvest and festival season .The lowest level of parental education in rural areas is not conducive to education in general and mathematics education in particular. Specifically with regard to mathematics education it was seen that 69.3 per cent of school students from urban areas indicated engineering, bio-technology and other career choices which required the study of mathematics as against only 25.3 per cent of children from rural areas. Thus the importance of mathematics as a subject requirement was felt by the students residing in the urban areas. Other factors as seen were lack of qualified and committed teachers and irregular attendance of teachers. The teachers in rural areas (63 per cent) resided in the nearest town and commuted to their place of work resulting in a negative effect on school mathematics education in rural areas.

Studies on rural education (Roberts, 2005; Vinson, 2002) have identified several areas like effects of teacher shortages, a lack of opportunity to access professional development, and difficulties in providing resources for their students similar to the above result accounts for the geographical divide.

Physical Facility

Infrastructure facilities

Here the study took into consideration the overall condition of the school buildings.

Table 3

Mean Scores of Students divided on basis of School Infrastructure

Class		*Infrastructure*									
		Infrastructure Problem				*No Infrastructure Problem*				*t*	
VII	Mean+SD	25.30	±	11.97	a	38.86	±	13.17	b	-7.65	**
	N	220				70					
IXN	Mean+SD	28.02	±	13.63	a	39.52	±	20.52	b	-5.37	**
	N	220				70					

*Note: ** Significant at 95 per cent*

Significant differences existed (as seen in Table 3) in the means of the combined scores for schools with and without infrastructural problems. Poorer performance was recorded in schools where infrastructural problems were present.

Quality standards of schools in terms of infrastructure, often do not meet the parameters laid down in the Education

Bill of the government. Proper facilities were available mostly in private schools located in urban areas. Government schools especially in rural areas were found to be shabby and not repaired for years. Overcrowded classrooms, with a thin bamboo partition between different classes made up for a noisy atmosphere that impeded mathematics teaching. Other infrastructural problems that were listed were inadequate classrooms, classrooms not furnished properly, inadequate ventilation and lack of teaching materials.

The study revealed 73 per cent of schools had insufficient number of classrooms; 57.5 per cent schools did not have ceiling; 54 per cent schools used flimsy bamboo partition to divide the classroom into two sections; 62 per cent did not have proper ventilation; 76 per cent schools had insufficient number of benches. No government school had a well stocked separate library room.

The schools where teachers and students interact in individual classrooms constitute the core of the education system. Studies conducted along these lines. (Earthman 1998, Phillips, R. 1997) record that the infrastructure of schools is positively linked to improved achievement.

A vital component for teaching mathematics is the mathematics laboratory. This is a place where the student can learn and explore different mathematics concept by doing a variety of activities. The Central Board of Secondary Education(CBSE) has made it compulsory for all schools to have their own mathematics laboratory for all classes up to secondary level. This laboratory should be introduced for all schools.

Availability of Textbooks

Textbooks play a vital role in school education in developing countries. They are one of the fundamental factors in quality education at school level. The importance of textbook availability is highlighted by the fact that they are often the only teaching resource available particularly in rural areas. Also there are no school libraries in these areas from which a pupil may use a book which contains the subject matter necessary in his curriculum. Additionally, the school mathematics textbook is particularly important for children who

Table 4

Mean Scores of Students divided on basis of Textbook Availability

Class		*Availibility of textbooks*									
		Availability of textbooks in beginning of session				*Non-availability of textbooks in beginning session*				*t*	
VII	Mean+SD	35.04	±	20.61	a	20.61	±	9.85	b	10.61	**
	N	160				130					
IX	Mean+SD	38.90	±	15.66	a	22.24	±	12.06	b	10.10	**
	N	150				140					

come from weak socio-economic background.

The factor studied here was whether the prescribed mathematics textbook was readily available in the beginning of the session.

Table 4 shows the variation in performance among the two groups. Studies by Hanushek EA (1996), Heneyman SP (1984) Jamison et al (1981) have reported similar findings.

Teacher-Student Ratio

Teacher-Student ratio refers to the number of teachers in a school with respect to the number of students who attend the institution. Here the comparison was made between groups divided on the basis of whether the teacher-student ratio was below or greater than 1:40.

Table 5

Mean Scores of Students divided on basis of Teacher Student Ratio

Class		*Teacher Student Ratio*									
		1.40				*Greater than 1.40*				*t*	
VII	Mean+SD	31.46	±	13.82	a	25.88	±	12.78	b	3.57	**
	N	160				130					
IX	Mean+SD	36.08	±	16.35	a	25.86	±	14.67	b	5.61	**
	N	140				150					

The class size in 54 per cent of the schools surveyed was larger than the recommended ratio of 1.40. Significant differences were seen along groups divided on the basis of teacher-student ratio. Groups which had a high teacher student ratio showed poorer performance. This is because of difference in the interaction level between student and teachers. A class with too many students proves to be disruptive. The teacher has to spend time controlling the large classes, also there in a diverse field of students with varying degrees of learning ability and information uptake which also slows down the learning process.

Variation in mean was seen in groups divided along teacher student ratio. The mean was higher where the above ratio was smaller. The premise is that the teaching was more effective when the teacher could spend time with each student. Adequate attention received by the student is important in understanding mathematics. In a large classroom with a high teacher student ratio there is obvious high variance in students' learning abilities and imbalance in the teaching offered. When the classrooms are crowded, they become a burden to teachers who are unable to relate to individual pupils.

However, in countries with a high population there continues to be large classroom sizes. This was seen especially in rural areas where there is an insufficient number of teachers. In course of the survey, 58 per cent of the

Table 6

Mean Scores of Students divided on basis of Teaching Methods

Class		*Training Methods*									
		Blackboard and chalk, lecture				*Additional methods to blackboard and chalk, lecture*				*t*	
VII	Mean+SD	23.19	±	10.74	a	37.39	±	13.08	b	–9.57	**
	N	180				110					
IX	Mean+SD	27.34	±	13.05	a	36.46	±	19.30	b	–7.71	**
	N	180				110					

schools in rural areas reported inadequate number of teachers. To solve this difficulty two sections were combined with the result that the teacher had to spend a majority of his time controlling the students, instead of teaching and provide opportunities.

Research has shown that effective teacher-student ratio should be between 1:25 to 1:35. The current average ratio in India is 1:42. The high teacher-student ratio has a negative impact on the quality of education in India. In the present study the teacher student ratio is found to have significant effect on the combined scores in mathematics of the students.

Teaching Method Used

Teaching methods refer to the various ways in which the teacher teaches mathematics. The most common methods that are used are the lecture method supplemented by blackboard and chalk. Only 24 per cent of the teachers reported that they use methods like group discussion, quiz, audio-visual aids and mathematics laboratory for teaching mathematics.

The common teaching method observed was lecture and use of blackboard. Thirty seven per cent of the schools surveyed used other methods like quiz, group discussion, use of audio-visual aids additionally. There were significant differences in the means of the combined scores for the two groups.

Simply lecturing the students resulted in passive listeners. They display an unquestioning reverence of the teacher without any objective analysis on their teaching methods. They are not able to acquire an in-depth understanding of the subject. There is a long history of research, going back to the work of Brownell (1945, 1947), on the effects of teaching for meaning and understanding, where the teaching methods positively influence student learning of mathematics.

Daily Homework

The combined scores of the students were examined for the two sets of students who reported that daily homework was allotted and corrected in their schools and those who do not have the practice of regular homework assignments.

Table 7
Mean Scores of Students divided on basis of Assignment of Daily Homework

Class		*Daily Homework*									
		Daily homework given				*Daily homework not given*					*t*
VII	Mean+SD	36.28	±	12.70	a	22.31	±	9.85	b	10.14	**
	N	130				160					
IX	Mean+SD	35.32	±	18.34	a	27.12	±	13.40	b	4.39	**
	N	130				160					

Variations in means were seen among the children who were given daily homework and those who were not. Though there are critics who do not support the assigning of daily compulsory homework, in this case mathematics achievement favoured the group that was assigned daily home work. Mathematics as a subject is improved by repetition of tasks. This is because mastery of some basics is required for competent performance of more demanding tasks. Additionally, practice in working out mathematics problems leads to mastering the underlying algorithm as well as the student gaining speed in his work eventually leading to increase in conceptual knowledge also.

However, homework as a factor cannot be studied in isolation. An examination into the schools which assigned and checked homework revealed that 100 per cent private schools in urban areas, 64 per cent government schools in urban areas and no government schools in rural areas reported the assigning and correcting of daily homework. Also in case of homework the home environment plays a role. Thus factors like school management, school area, parental education, family income are interrelated to homework.

Specific Training for Teachers

All teachers included in the survey had at least a graduate degree. Apart from this, however, training of teachers is an essential component of mathematics education and consists of both pre-service and in-service programmes. Specific training in mathematics teaching refers to the knowledge that a mathematics teacher has to acquire in order to teach mathematics effectively. Mathematics teachers need to promote an active interest in learning among the pupils rather than rote learning and memorisation. They need to analyse students solutions, provide explanations for errors and also to solutions of a problem and make use of pictures, paper cutting activities, diagrams and perform mathematical experiments for the purpose of discovering some mathematical principle, pattern, or process.

Table 8
Mean Scores of Students divided on the basis of Training received by their Teachers Teaching in Mathematics

Class		*Specific training in teaching mathematics*									
		Training received				*Training not received*				*t*	
VII	Mean+SD	31.94	±	12.85	a	24.97	±	13.40	b	4.52	**
	N	150				140					
IX	Mean+SD	32.23	±	15.74	a	29.26	±	16.79	b	1.55	**
	N	150				140					

Statistical analysis revealed that the results of classes IX and VII were of dissimilar nature. The t value for Class IX was less than the critical value of t (1.96) at 5 per cent level of confidence and hence there were no statistically significant differences between the two groups in Class IX. However in case of Class VII the result indicated significant variations in the means of the two groups.

The explanation may be that the effects of training are not translated into effective teaching during the teaching-learning experience of the classrooms in certain cases. The duration, intensity and nature of the training as well as teacher motivation are factors that have also to be considered.

The outcome of this linking of the training of teachers to the achievement of the students they teach, are in line with other similar studies which have demonstrated a mixed effect. The results of the NCERT report 1995 indicate that the association of in-service teachers training to student achievement across states is unstable and does not provide a definite trend. Researchers like Kennedy (1998), Brian A. Jacob (2002) have found that in-service teacher training has no statistically or academically significant effect on either reading or mathematics achievement. However Wiley and Yoon (1995), Cohen and Hill(2000) are others who find teacher training programmes to have at least small impacts on student performance. Again researchers like Angrist and Lavy (2001) have found strong effects of teacher training on student achievement.

Though the results of different studies are varied, teacher training remains a vital factor in improving mathematics education. Researchers like Dove (1986) and Raj Rani (2005) have advocated the need for professional development on a continuous basis can improve teaching skills. This is especially true in mathematics education where the syllabi have considerably changed over the years and systematic and continuing education programmes for teachers is necessary for acquiring fundamentals in many concept areas. Additionally teachers need to be well-versed in using computers and technology which greatly facilitate the learning and understanding of mathematics. To address this problem, quality in-service programmes are required on a continuous basis that

engage teachers deeply with the mathematics they are teaching, upgrade their skills and give them new insights into their students' understanding of mathematics.

Discussion and Conclusion

Heyneman and Loxley (1983) had stated that in low income countries, school-level factors could account for a greater proportion of variance in student achievement as compared to student-level characteristics. The phenomenon has come to be known as the 'HL effect' and indicates the important responsibility of schools towards providing equitable education in developing countries.

The present study shows that school factors have an influence on achievement of the students. Studies by Kulkarni (1970), Aggarwal (1995), Kingdon (2008) have shown that school influence is important to students achievement in India.

This paper which deals with the influence of school environment demonstrates its relation with the mathematics achievement of the student. It is seen that in addition to socio-economic factors which influence mathematics learning of students, school factors comprising of school management, area, infrastructure, availability of textbooks, teaching methods, teacher student ratio also play a part in determining the mathematics achievement of the students. These factors, however, cannot be studied in isolation and are interrelated.

The null hypothesis assumes that there is no difference in the influence of school environment on mathematical achievements of students. However, from the tests conducted on various influencing factors related with school environment it has been seen that all the the values are highly significant. This indicates that there is evidence to reject the null hypothesis and conclude that there is a high degree of influence of the factors like school management, area, infrastructure, availability of textbooks, teaching methods, teacher student ratio etc. on the performance of the students in mathematics.

The results of this paper are consistent with previous research showing that although student background variables influence differences in achievement in mathematics, classroom and school variables also contribute substantially (Fullarton and Lamb, 2000).School effectiveness research undertaken by Bosker and Witziers (1996), that school effects account for approximately eight to ten per cent of the variation in student achievement inspite of great diversity in the background of children

This has important implications for government policy regarding the improvement of mathematics achievement. The Right to Education has been enshrined as a Fundamental Right by the Constitution of India. The education sector has been of vital importance to the Indian Government. However, there is a vast gap between policies and the reality at grass root level. It is a fact that children from poor families are faced with inferior quality school education. Children of the rich and the urban middle class are enrolled in private schools. Such schools will exacerbate inequalities by providing better opportunities to youngsters who

can afford to attend and consigning children from the poorest families to whatever the government offers.

To bridge the social, regional and gender gap, the school environment is a vital factor. By imparting quality education uniformly in all schools this gap can be addressed. This will also provide equal opportunity for higher studies and the employment to all deserving students irrespective of family background. Thus it is imperative that there should be improvement in facilities and infrastructure, teaching methods, training for teachers and other factors which influence school environment.

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Achievement and Personality Pattern of Secondary Level Scheduled Tribe Students in Relation to Gender and Type of Institutions

B.N.Panda*
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Abstract

Scheduled Tribes (STs) are one of the recognised disadvantaged groups of the country. The present paper is an outcome of a research conducted with an objective to study the achievement and personality pattern of Scheduled Tribe students of six tribal concentrated districts of Odisha. The study reveals that (1) the residential secondary school students score better than non residential students in aggregate achievement (2) the non government secondary school students perform better than government school students. The non government secondary school students are found to have higher level of mean academic achievement than government secondary school students. The study also reports that achievement doesn't have significant relationship with the personality pattern as a whole. But achievement of total sample students has significant positive relationship with only two of the fourteen HSPQ (R.B.Cattel) factors, i.e. 'less intelligent vs. more intelligent' and 'phlegmatic vs. excitable'. Based on the findings the study suggests some realistic measures for education of Scheduled Tribe Students of the country.

Rationale of the Study

The National Policy on Education as revised in 1992 has asserted the quality in education which has been reiterated in the section-4.1 of the document. It states: "the new policy will lay emphasis on the removal of disparities and to equalise educational opportunities by attending the specific needs of those who have been denied equality so far". Since,

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Scheduled tribe groups are one of the recognised disadvantaged groups of the society, special planning and efforts have been made after independence to achieve the equality in education for them. Various committees and commissions, working groups and study teams were constituted to formulate policies, programmes and promotion of education of tribal communities. As a result the programmes such as establishment of ashram schools, preparation of text books in tribal languages, free supply of uniform, residential facilities were taken up. As per the 2001 census 47.1 per cent of the ST population above the age seven is found to be literate, the literacy rate being 59.17 for males and 34.76 for females. More than 22 per cent of populations of Odisha are tribals. In Odisha the literacy rate of tribals is lagging behind the literacy of tribal at the national level (37.37 per cent against national tribal literacy of 47.10 per cent). The country is moving towards universalisation of secondary education. The Selected Educational Statistics of MHRD (2005) reveal low achievement of ST students at secondary stage.

The quality of education is also dependent upon the academic achievement. Studies conducted by NCERT (Ambasth and Rath-1995; and Shukla-1995) reported low achievement amongst tribal primary school students in Mathematics and languages. Moreover, studies by Chobey (1990), Beckford (1993), Taylor (1994) and NCERT (2005) report low achievement of tribal students than their non tribal counter parts. Even Shukla (1995) reported large differences of achievement of tribal boys and girls across the states. However, Panda (1992) did not find any significant differences in achievement between male and male tribal adolescents. Diwedy (2005), Lawrence (2005) and Michel (2005) revealed the significance of management and school environment on academic achievement of high school students.

Patel (1984) studied the personality pattern of tribal and non-tribal secondary school students and found significant differences in personality pattern of both the groups. Similarly, Panda (1991), Patel (1987) and Patel (2001) found significant differences in personality pattern of tribal and non-tribal students. However, Chobey (1991), Patel (2001), Rogers (2005) did not find any differences in personality and academic achievement of ST students (disadvantaged in foreign context) within the group.

Secondary education is a link between the elementary education in one hand and tertiary education on the other. Improved enrolment at the elementary stage has led to increase access to secondary schools. Most of the studies cited above on achievement and personality pattern have predominantly been conducted at the elementary level in view especially of the constitutional commitment to the universalisation of elementary education. As there are different type of secondary schools i.e., residential/non residential, government and non government and tribal and general schools having different levels of facilities, it is pertinent to study the differences if any in the achievement and personality pattern of students studying in these schools of Odisha.The study of achievement of ashram schools,

schools run by SC/ST Welfare Department, and government and non government schools will help the state and central government to plan interventions to increase the enrolment and achievement of ST students. More ever, findings of David (2005) and Peter (2006) that socioeconomic status, parental background as contributory factors towards academic achievement needs further exploration and verification in the conditions of Odisha is inevitable. As there is no research evidence of studying the relationship between achievement and personality pattern of scheduled tribe students studying in secondary schools of Odisha, study on achievement and personality pattern of scheduled tribe students studying in secondary schools was conducted.

Objectives of the Study

1. To study the achievement of secondary school scheduled tribe students in relation to their gender.
2. To study the achievement of secondary school scheduled tribe students in relation to their types of school.
3. To compare the personality pattern of scheduled tribe students studying in different types of secondary school.
4. To study the personality pattern of scheduled tribe boys and scheduled tribe girls of secondary schools.
5. To find out the relationship between achievement and personality pattern of scheduled tribe boys and scheduled tribe girls studying in secondary schools.
6. To find out the relationship between achievement and personality pattern of scheduled tribe students studying in residential and non residential secondary schools.
7. To find out the relationship between achievement and personality pattern of scheduled tribe students studying in government and non government secondary schools.

Hypotheses of the Study

1. There exist no significant differences in the achievement of scheduled tribe students in relation to their gender.
2. There exist no significant differences in the achievement of scheduled tribe students studying in different type of secondary schools.
3. There exist no significant differences in the personality pattern of scheduled tribe students studying in different type of secondary schools
4. There exist no significant differences in the personality pattern of scheduled tribe boys and scheduled tribe girls of secondary schools.
5. There exist no significant relationship between achievement and personality pattern of the scheduled tribe students studying in residential secondary schools and the scheduled tribe students studying in non residential schools.
6. There exist no significant relationship between achievement and personality pattern of the scheduled tribe students studying in government secondary schools and the scheduled tribe students studying in non government secondary schools.
7. There exist no significant relationship between achievement and personality pattern of the scheduled tribe boys

and scheduled tribe girls studying in secondary schools.

Method and Procedure

The present research is a descriptive survey type of study which includes the enrolment, achievement and personality pattern of the scheduled tribe and non scheduled tribe secondary school students. Here enrolment, achievement and personality pattern are dependent variables where as gender and school type i.e., residential and non-residential and the nature of management of schools i.e., government and non-government are independent variables.

Population and Sample

On the basis of serious considerations of facilities, situation and criticisms of various techniques and purpose of the study the cluster cum purposive sampling techniques has been adopted in the present investigation. A sample of 900 secondary school students (IX Graders) was selected for the study from six tribal concentrated districts i.e., Baragarh, Sundargarh, Kandhamal, Baudh, Kalahandi and Mayurbhanj of Odisha. School Type and gender- wise distribution of the sample is presented in the table-1.

Table 1
Distribution of Sample

Type of School	*Government*			*Non Government*			*Total*
	Boys	*Girls*	*Total*	*Boys*	*Girls*	*Total*	
Residential	236	250	486	0	0	0	486
Non residential	100	144	244	114	56	170	414
Total	336	394	730	114	56	170	**900**

Tools Used

The investigators selected the following tools for the present study.

1. The gender, category of students, and achievement in school subjects were collected through a school information schedule developed by the investigators (Annual examination scores of students are collected as an index of academic achievement)
2. High School Personality Questionnaire (HSPQ) of R.B. Cattel (14PF) was translated to Oriya version and standardised by investigators.

Statistical Techniques Used

In order to analyse the data with suitable statistical techniques, the following statistical procedures have been used in the present study.

1. The statistical technique of' t' is applied to find out significant differences in achievement and personality of students from different types of secondary schools.
2. Correlational analysis has been used to find out the relationship between different sets of variables.

Delimitations of the Study

The data have been collected from six tribal concentrated districts i.e. Sudargarh, Baragarh, Kalahandi, Kandhamal, Boudh and Mayurbhanj of Odisha. Achievement is judged by the previous class final examination scores readily available in the school.

Major Findings of the Study

One of the objectives of the study is to find out the achievement of secondary school students of Odisha in relation to their gender and type of schools. The '*t*' values are calculated and the results with reference to aggregate marks have been calculated and shown in Table-2.

It is found from the Table-2 that "t" value of residential vs. non residential (25.24), government vs. non government (11.46), government residential vs. government non residential (22.37),

Table 2

"t" ratio for Achievement of ST Students

Sl. No	*Group*	*N*	*M*	*SD*	*t value*	*Relati-onship*
1	Residential	486	235.68	18.42	25.24**	S
	Non-residential	414	203.99	19.06		
2	Govern ment	730	201.38	17.56	11.46**	S
	Non-government	170	220.66	20.23		
3	Govt-residential	486	235.68	18.42	22.37**	S
	Non-government residential	244	201.90	19.65		
4	Govt-non-residential	244	201.9	18.24	3.48**	S
	Non-govt. Non-residential	170	220.66	20.23		
5	Boys	450	209.5'	16.68	2.58*	S
	Girls	450	212.69	20.12		
6	Residential boys	236	217.84	19.64	0.29	NS
	Residential girls	250	218.34	18.00		
7	Non-residential boys	214	207.12	19.86	3.25 **	S
	Non-residential girls	200	200.86	19.24		
8	Govt. boys	336	198.86	16.08	3.94**	S
	Govt girls	394	203.90	18.46		
9	Non-government boys	114	220.06	14.82	0.55	NS
	Non-government girls	56	221.26	12.48		

*** Significant at 0.01 level* **Significant at 0.05 level* *NS=Not Significant*

government non residential versus non government non residential (3.48), and non residential boys vs. non residential girls (3.25) are significant at 0.01 level in the mean achievement of ST students. The 't' value of boys vs. girls (2.58) is significant at 0.05 levels. The 't' value for residential boys versus residential girls (0.29) and non government boys vs. non government girls (0.55) are insignificant.

The comparison of mean achievement of ST students in aggregate scores of various groups reveal that the residential students (235.68) score the highest and the government boys (198.86) score the lowest. When the mean aggregate score of students in relation to the type of secondary schools are compared, it is found that residential students (235.68) score better than non residential (203.99) and the non government students (220.66) score more than government students (201.38). When the mean aggregate scores of boys and girls are compared, it is found that girls perform better (212.69) than boys. Thus, it can be concluded that there is a significant effect of type of institutions and gender in achievement of scheduled tribe students studying in secondary schools of Odisha.

Personality Pattern of Scheduled Tribe Students Studying in Different Types of Secondary Schools

One of the objectives of the study was to compare the personality pattern of scheduled tribe students studying in different type of secondary schools of Odisha.The 't' value of different group of students are presented in Table-3. It is observed from Table 3 that achievement doesn't have significant relationship with the personality pattern as a whole. Achievement of total sample students has significant positive relationship with only two of the fourteen factors i.e. B 'less intelligent versus more intelligent' (r = 0.1077) and D 'phlegmatic vs. excitable' (r = 0.1021). However, achievement of total students is positively related with all the 14 personality factors.

Discussion

The present study reveals that the residential secondary school students score better than non-residential students in aggregate. While the government has been spending a lot on education of residential students, this shows a positive sign. Further the non-government secondary school students perform better than government school students. The non-government schools are either partially run by state fund or fully run by private fund. The ST girls performed better than the ST boys in aggregate. The better academic achievements of residential school students have been supported by studies of Orr (2003) and Kozol (2006) in foreign context and studies of Diwedy (2005). The differences in the academic achievement of ST girls and ST boys have been supported by studies of NCERT (2005).

The results given earlier on differentials between the achievement of residential—non-residential and government—non-government secondary school students reveal significant differences in both the groups.

Table 3
Coefficient of Correlation(r) between Achievement and Personality Pattern of ST Students (N=900)

Sl. No.	*Personality factors*		*Coefficient of Correlation(r)*	*Relationship*
1	Personality pattern		0.044	NS
2	A	Reserved vs. outgoing	0.0129	NS
3	B	Less intelligent vs. more intelligent	0.1077*	S (0.05 level)
4	C	Affected by feeling vs. emotionally stable	0.0227	NS
5	D	Phlegmatic vs. excitable	0.1021*	S (0.05 level)
6	E	Obedient vs. assertive	0.0093	NS
7	F	Serious vs. happy go lucky	0.0229	NS
8	G	Expedient vs. assertive	0.063	NS
9	H	Shy vs. venturesome	0.034	NS
10	I	Tough Minded vs. tender Minded	0.058	NS
11	J	Vigorous vs. doubting	0.0126	NS
12	Q1	Placid vs. apprehensive	0.051	NS
13	Q2	Group dependent vs. self sufficient	0.018	NS
14	Q3	Undisciplined vs. controlled	0.027	NS
15	Q4	Relaxed vs. tense	.0127	NS

** Significant at 0.05 level ** Significant at 0.01 level NS not significant*

The non residential students are found to have lower academic achievement in aggregate. The non-government secondary school students are found to have higher level of mean academic achievement than government secondary school students of Odisha. This has been supported by the studies of Diwedy (2005), and Kozol (2006).

The results presented earlier on personality pattern of ST students of different schools reveal that in all personality factors there exist positive correlation. Only in some factors it is significant. The findings of the present study seems to be in the direction of results obtained in some similar studies by Chobey (1990), Mavi and Patel (1997) and Patel (2001) in Indian context and studies by David (2005) in foreign context. The results presented earlier on the relationship of academic achievement and personality pattern reveal a positive but insignificant

relationship between academic achievement and personality pattern. This finding is also been supported by the studies of Sutradhar (1982), Mavi and Patel (1997) and Patel (2001).

Education Implications

Proper study atmosphere, recruitment of dedicated teachers may be done in both residential and non residential secondary schools. Schools run by SC, ST Welfare department, and School and Mass Education Department of Government of Odisha need to take steps for recruitment and training/orientation of teachers.

The home and the early environment of the tribal children make them deficient in cognitive abilities. So by the time they reach the school, they lag behind there non-tribal counterparts and the gap unless checked early goes on widening in what is known as cumulative deficits. Thus, preschools should cater to the improvement of the child's physical and mental health, emotional and social development, conceptual and verbal skills and motivation to learn.

Language and text books should be written in bilingual mode at least at elementary stage. In the local school (primary) local tribal people should be appointed as teachers. It will reduce the gap between the school and the home environment of tribal learners as it will be based on the tribal cultures. Multilingualism should be encouraged.

In devising and selecting methods of teaching for tribal children, there learning styles viz. learning by doing, learning by memory, story telling, oral reading, recitation, repetition, group method and role playing may be profitably be applied to teach tribal children. Besides the self esteem, self discovery, introspection and self identity may also be effective for ST children.

A general orientation of teachers in having an insight in to the problems of ST children and their specific difficulties, and the ways to take them may also serve useful purpose. The orientation of teachers with regard to developing an awareness of enrolment status, relation ship of achievement and personality pattern achievement of different group of students are very important. The heart of the educational process is the interaction between the teacher and students. It is through this interaction that school makes the positive impact upon the child. So teacher should provide affirming attitude and positive expectations from the ST children.

As ST at the primary lack test taking skills, it has a cumulative effect on performance at secondary stage. The instructions for test/evaluation at primary stage should be made clear and content should not create cultural problems for them. More practice in taking tests should be given to them. Adequate infrastructure facilities viz. school building, hostels, electricity, portable water supply, girls' toilet and road communication should be provided in secondary schools in tribal concentrated districts. The non residential schools should be taken care of in terms of adequate provision of infrastructure.

The role of the state and the central government seems to be crucial in helping ST children to get equal benefits from the educational provisions. The first requirement of such an educational

strategy for education of ST students is a proper survey of needs and problems of these children and their community. Only on such a sound survey the educational facilities and status can be judged.

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A Comparative Assessment of the Creativity in Adolescents Across Two Categories of Schools in Pithoragarh, Central Himalaya

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Abstract

The present study, conducted among the adolescent students of Class XII attempts a comparative assessment of creativity (i) in girls versus boys, (ii) in students enrolled in government run schools versus those enrolled in private schools, and (iii) across different economic groups of students. Adolescents, in the age group between 15 and 18 years, and studying in the 12th standard were selected across six different schools: Private run-3 and government funded-3, located within the township of Pithoragarh, Uttarakhand. Altogether 178 adolescents, represented by 103 boys and 75 girls were selected randomly. Measurement of potential creativity was done through Passi tests of creativity. In an overall appraisal of difference between sexes in ability, achievement, and readiness, the differences were very slight, and certainly not sufficient to warrant the fact that creativity differs across the sex. However, a sharp difference is conspicuous in the functioning of creativity of the adolescents, enrolled in private run with those enrolled in government run schools, with creativity level being significantly more in adolescents enrolled in the former. Creativity shows a positive correlation with the socio- economic status of the family, irrespective of the sex of the student. It is strongly felt that if the potential of creativity is to be harnessed, a requisite motivating environment, which boosts up their self-concept and achievement motivation, remains obligatory.

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Introduction

Social work, as a discipline and a professional method, is the process of helping people to help themselves to become integral, independent, productive and authentic human beings. In the wider sense, it also aims at the restructuring of the preset defective social systems and practices for the construction of a better world through widening the horizons of human existence and achievements. If this is to be effected, i.e., if tomorrow is to be a better and brighter one, today's children and adolescents are to be made more focused. For this, the urgent attention of both theoretical and practical social work is required with the creativity of the adolescents, since it is their creativity, which is going to design and determine the future, for as per Erickson (1963), *Adolescence is the most decisive period in the formation of an adult personality.*

Adolescence remains the most energetic period of development, ruled by the inquiring mind, roving curiosity, intellectual robustness and creative energy. It is the period when the instinctual creativity of the childhood is replaced by rational creativity, out of the development of operational and formal thinking. The convergent style of childhood will be challenged and the divergent options will start to rule and guide them. This immense productive force in them is of vital importance, not just for the individual, but society at large. And hence, the same needs to be nurtured, guided, so that the individual's creativity becomes an invariable cog in the overall development of the society.

Needless to emphasise, creative insights form an essential component of the survival process, in turn leading to the prosperity and sustainable development of the society. It is very often pointed out that the potential capacity to be creative is not a characteristic of a selected few, but rather a process that is inherently present in one and all. It is infact, a dynamic process in person, which helps him/her to achieve dignity and meaning in life. Hence, more creative a person, more independent he/her would be, and thus more contributing to the society, since he/she would accomplish much more, at much less expense, than other less creative people. In the present, socio-cultural context of institutionalised values, where the potential creative abilities are very often neglected and rather condemned and disparaged, this natural abundant grace is very often in danger of institutionalisation and convergence.

Creativity: The Definition

As per Dehaan and Havighurst (1961), potential creativity is defined as the capacity, which leads to the production of something new and desirable. This new product may be new to the society or merely new for the individual, who creates it. According to Rogers (1970), creative potential is the capacity for the emergence in the action of a novel rational product growing out of the uniqueness of the individual, on the one hand, and the materials, events, people or circumstances of his life on the other. While, Flanagan (1963), defines creativity as a broad concept of being potent to bring forth almost anything new in a way of an idea, a formulation, a model, or a theory of an aesthetic or practical product. Hence, the term creativity may be defined as the potential capacity of

human being to be multi-dimensional in thinking and the creation of something unique and new. This potential capacity is functionalised or expressed through the divergent thinking and creative productions, but is clearly observable or otherwise represented through certain characteristics and behavioural traits. This potential creativity, remains an inner call to deviate from the traditional single-headed convergence to the multi-faceted new flexible way of inquiry and creation, and is a basic instinct to be different and unique through directed, rational and divergent thinking in the process of living and making the existence successful and productive.

Adolescence: The Concept and the Creativity

Derived from the Latin *adolescere*, the literal meaning of 'adolescence' is apparent- '*to grow*' or '*to grow to maturity*'. The adolescence, as conceived presently, has more profound, broader meaning, and not just confined to the biological aspect-the attainment of the reproductive potency, and thus is inclusive of the process of mental, emotional and social maturation! However, adolescence is do marked by the attainment of puberty, and thus marked by appearance of secondary sex characteristics, and ends with psychosocial markers, such as adult responsibilities. And hence, this whole process involves profound intellectual changes and transformations, typical of the adolescence thinking, all of which enables him/her to integrate into the social relationships of the adults, which remain, in fact the most conspicuous characteristics of this period of development. Invariably, for all the causes enumerated above, as well as myriad others, this period remains the most difficult period of transition, very often described by phrases such as '*storm and stress*', *identity crisis*, *the generation gap*, *the turmoil period* (Hall 1943).

In the case of the adolescents, the significance of development and utilisation of divergent thinking is very high, since it is during this time that they bloom out with their cognitive field through the development of their operational thinking. Importantly, while creativity during childhood is instinctual, the creativity in case of the adolescents is more rational and productive, and this becomes more and more obvious and conspicuous with age. What is more important is the fact that this creativity and its evolvement can or rather should be treated as yet another cognitive capacity like intellect, to be harnessed, moulded, directed and focused through continuous interventions, leading to novel contribution. According to Getzels and Jackson (1962), creative thinking (the functionalised elaboration of the potential creative capacity) is the highest of mental functions and creative production, the highest peak of human achievement; and hence, if appropriate measures are not taken to nurture this potentiality, the achievements and success in life will be badly affected and if so, they not just become problematic to themselves, but to the society, at large. And henceforth, it becomes all the more pertinent to understand and appreciate the creativity in adolescents, that appropriate training and care be provided, so that the person attains optimum achievement.

Why the need of the present study

Even though, there are numerous studies and theoretical formulations about creativity in general, they all generally focus on children's creativity. There are some studies pertaining to the creativity of artists, literary writers and other similarly classically accepted creative groups, however, no studies, or rather any study has been done on creativity in adolescents. Lest to emphasise, adolescence remains the most important period in life, more so as concerns the development and utilisation of creativity. Infact, the researchers have not yet made any ample attempts to study the specific reality of this unique period scientifically. Another important aspect of creativity remains the fact that many a creative talent go into disuse between the age group 16 to 19. Again, whatever studies pertaining to creativity in adolescents have been mostly carried out in the Western or European countries, wherein the culture is significantly different from our own and thus the need to undertake the same in the prevalent socio-cultural milieu as well as economic conditions, at home. It is all the more important, that creative abilities are identified early in life and creative individuals provided with viable environment sustaining and encouraging their innate urge to contribute.

There is a general perception among the populace that girls are more creative than boys; that the pattern of study in the private schools is more conducive for creativity than that of government run schools, and that economically well off students score relatively better as compared to the less fortunate ones. Even though, these perceptions and observations are so very conspicuous, however, very little or no serious scientific inquiry or research has been made to verify their veracity, and hence the present study, conducted among the adolescent students of Class XII attempts a comparative assessment of creativity (i) in girls versus boys, (ii) in students enrolled in government run schools versus those enrolled in private schools and (iii) across different socio-economical class of students.

Methodology

Adolescents, in the age group between 15 and 18 years and studying in the 12th standard were selected across six different schools-privately run-3 and government funded-3, located within the township of Pithoragarh, Uttarakhand. The selection of the schools was done on two basic criteria-(i) the location of the schools (rural versus urban), and (ii) privately run versus government funded. Altogether 178 adolescents, represented by 103 boys and 75 girls were selected randomly. Measurement of potential creativity was done through Passi tests of creativity (Passi 2001). The collected data were coded according to the answer keys, and the score of each item of each tool of each individual respondent were abstracted and summated accordingly. The scores were then transferred to the master sheet, tabulated and edited for appropriate statistical treatment. The entire process of data analyses and interpretation was organised on the basis of the objectives and the hypotheses. The statistical techniques used for data analyses include the percentage analyses, Pearson's correlation test, t-test for equality of means and multiple

regressions. Eventually, the results derived from the statistical treatment of the data were interpreted on the basis of the available theories and other established findings of the research studies. The study delved into the more commonly perceived hypothesis about creativity, i.e. (i) *Creativity potential is significantly determined by the sex of an individual*, (ii) *There is a significant difference in creativity between adolescents studying in private and government run schools*, and lastly, (iii) *Creativity potential is significantly determined by the economic condition of an adolescent.*

Results and Discussion

Hypothesis 1: *Creativity potential is significantly determined by the sex of an individual.*

Creativity scores were measured in terms of three categories- below 40 as low, between 40-70 average, and more than 70, as high level of creativity. The relative distribution of the adolescents across these three different levels of creativity are depicted across the two divides (i) Boys versus girls (table 1), and (ii) Government versus privately run (table 2). A comparative assessment of the two groups of adolescents, boys and girls, brings forth the fact that creativity level is *not* determined by the sex (figure 1), and hence the above hypothesis remains a null hypothesis. Again, irrespective of the sex of adolescents, the creativity is high among the adolescents, with the average score (approx. 76) in totality (table 1).

Table 1

Average Test Scores by the Adolescents across the Gender Divide

CLASS	*AVERAGE TEST SCORE*					
	Problem test	*Unusual uses test*	*Consequences test*	*Inquisitiveness test*	*Square puzzles test*	*Total Marks*
Girls	14.5	25.6	16.1	7.7	12.9	76.80
Boys	12.5	25.3	17.8	7.2	13.3	75.06
Average	13.5	25.45	16.95	7.45	13.1	75.93

However, creativity levels across the different tests do differ across the sex divide, as exemplified by the Table 1, where the girls have fared slightly better than the boys. It is however, generally observed that gender differences in verbal, visual-spatial and mathematical performances are not only very small but also shrinking in recent years that boys and girls are increasingly becoming more similar in academic performance (Hyde and Linn 1988). Mixed results (as depicted in table 1) are do found, when problem solving, creativity, analytical skill, and cognitive styles are examined. Boys are found to possess greater ability to break 'sets' or to try new approaches in problem solving, as exemplified by the relative higher score earned by them in square puzzle test (table 1). They are generally more field independent, i.e. free from the effects of the context in which the problem is placed, as verified by the relative higher score in consequences test (table 1).

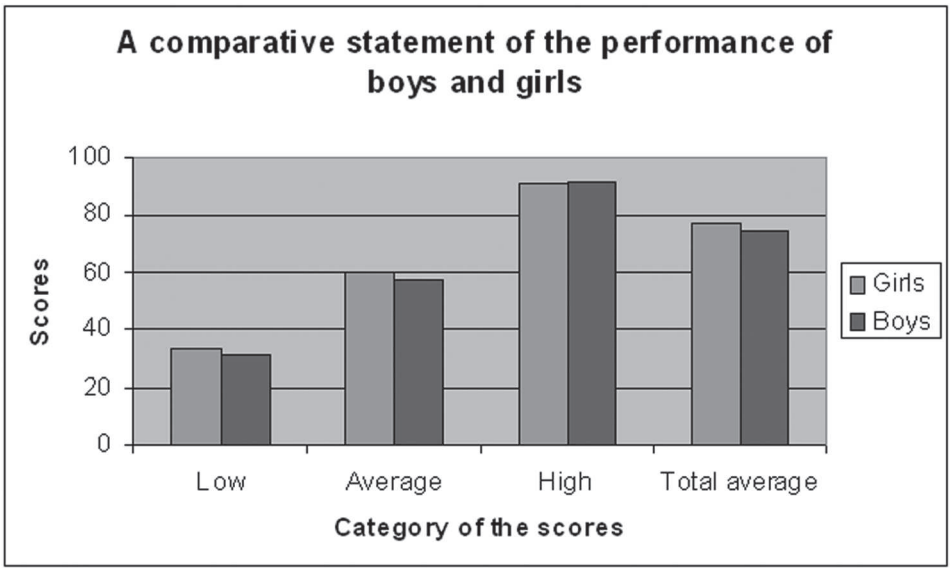

Figure 1: *Distribution of low, average and high groups of creativity across the sex groups*

Hypothesis 2: *There is a significant difference in creativity between adolescents studying in private and government run schools.*

When the adolescents are segregated in terms of the schools they were enrolled in, an entirely different picture emerges out- that the creativity level is significantly more in adolescents enrolled in the privately run schools, as compared to the adolescents enrolled in government schools. While the average score of creativity for government schools is below 70, the figure for private schools is notch ahead, more than 80 (Figure 2). This brings forth yet another facet of creativity, that it is synonymous with the kind of motivating environment, available to the adolescents, and thus, even though the kind of factors responsible for this significant high score of creativity in private schools was not studied, the figure 2 does bring forth the fact that motivation factor is relatively lower in case of government schools. One of the factors could be (as observed during the fieldwork) the absence of teachers and thus lack of resource, which could satisfy the urge and enquiries of adolescents in government schools; and concomitantly the very presence of the same in private run schools.

Yet another feature related with the private-government school divide remains the relative proportion of rural students enrolled in these two categories of schools, with the disproportionately large section of rural (and more or less belonging to lower socio-economic status-SES) getting themselves in government schools, in contrast to proportionately large section of higher SES wards opting

for private run schools. The results are in conformity with the fact that mean IQ (as correlated with the creativity level) is consistently lower in rural children as compared to that of urban children (Asher 1935, Chapanis and Williams 1945, Wheeler 1942). However, overall the results strengthen the fact that the adolescence remains the most creative period in life, since the findings that the adolescents are potentially highly creative than low or average creative (Figure 2), lends credence or rather consolidates the results of Eysenck (1972), Guilford (1966), and Anderson et al. (1981).

Table 2

Distribution of Low, Average and High Groups of Creativity across the Two Hypotheses-Girls versus Boys, and Govt. School versus Private Schools, Measured

Hypotheses Tested	*Low*		*Average*		*High*		*Total*	
A. Boys vs. Girls	*Boys*	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*	*Boys*	*Girls*
Frequency	5	1	42	32	56	42	103	75
Percentage	83.33	16.66	56.76	43.24	57.14	42.86	57.86	42.14
B. Govt. vs. Private School	*Govt.*	*Private*	*Govt.*	*Private*	*Govt.*	*Private*	*Govt.*	*Private*
Frequency	5	Nil	53	23	35	62	93	85
Percentage	100	-	69.74	30.26	36.08	63.92	52.25	47.75

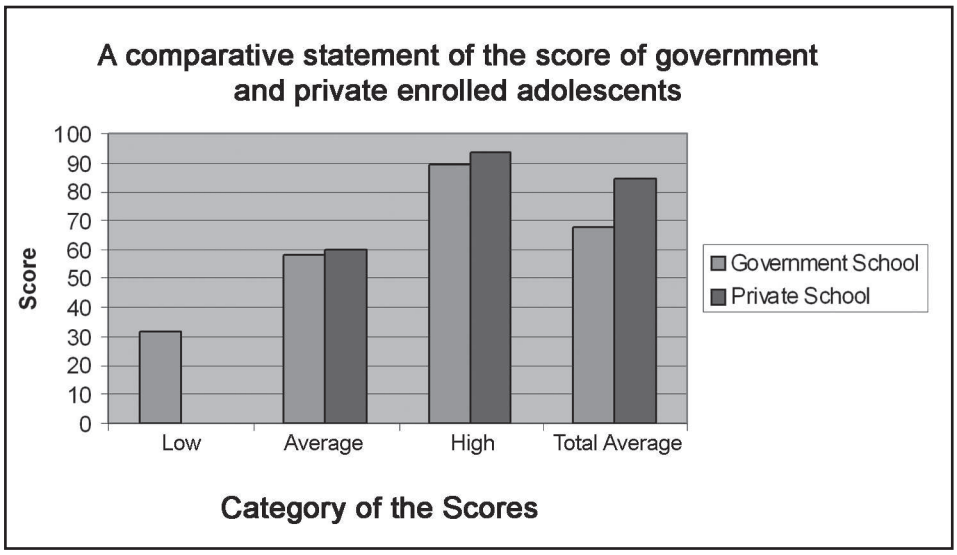

Figure 2: *Distribution of low, average and high groups of creativity of the government based and private run schools*

Hypothesis 3: *Creativity potential is significantly determined by the economic condition of an adolescent.*

The levels of creativity (low, average and high) were studied across the economic divide, across five categories of monthly income of the parents (Table 3). The results were astonishing: creativity showed a positive correlation with the economic condition of the family, irrespective of the sex of the student (Figure 3), which could be correlated with the fact that as the economic profile of the family improves, so does the ability to enroll their wards to a better school (mostly in the private run schools). Statistically, it is inferred that there is no significant difference between the male and female adolescents, with respect to their creativity, since the calculated 't' value stands at 0.54, which is less than the table value of 1.96 at .05 level. At the same time, the calculated t value-5.19, is far greater than the table value of 1.96 at 0.05 level, and thus is significant for the creativity as measured for the students enrolled in government versus private run school adolescents, signifying that there exists a significant difference in the creativity level of adolescents of the private run schools, as compared to those adolescents, enrolled in government schools (Table 4).

The above two facts-(i) creativity score being higher in adolescents enrolled in private run schools, as well as (ii) the economically well off adolescents, and their greater percentage in private schools, should be an eye opener for the policy makers, as regards the status of secondary education in the state government schools, where the staff is

Table 3: **Distribution of Low, Average and High Groups of Creativity Across the Economic Divide**

Economic Divide (monthly income)	*CREATIVITY LEVEL*															
	Low				*Average*				*High*				*Total*			
	Girls		*Boys*		*Girls*		*Boys*		*Girls*		*Boys*		*Girls*		*Boys*	
	Freq.	*% age*	*Freq.*	*% age*	*Freq.*	*% age*	*Freq.*	*% age*	*Freq.*	*% age*	*Freq.*	*% age*	*Freq.*	*% age*	*Freq.*	*% age*
<5,000	Nil	-	2	100	8	38.09	13	61.90	3	30	7	70	11	33.33	22	66.66
5,000-10,000	1	25	3	75	18	62.07	11	37.93	11	57.89	8	42.11	30	57.69	22	42.31
10,000-15,000	Nil	-	Nil	-	4	25.00	12	75.00	9	45	11	55	13	36.11	23	63.69
15,000-20,000	Nil	-	Nil	-	7	63.64	4	36.36	5	29.41	12	70.59	12	42.86	16	57.14
>20,000	Nil	-	Nil	-	3	37.50	5	62.50	6	28.57	15	71.43	9	31.03	20	68.96

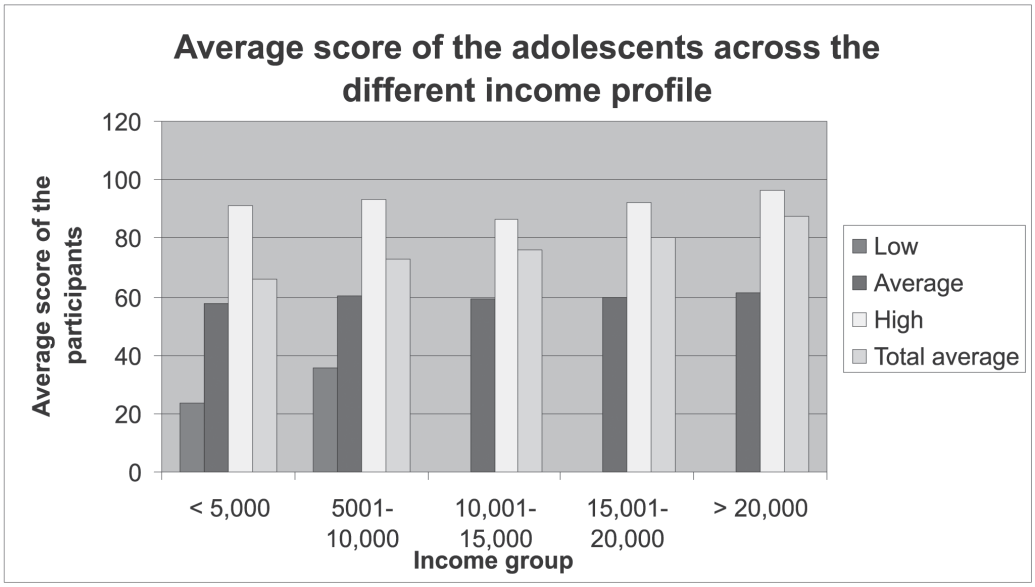

Figure 3: *Distribution of low, average and high groups of creativity across the economic divide*

more qualified, more highly paid, as compared to the private run schools, where the opposite exists. The answer lies in the fact that in the privately run schools, *the staff is made to work*, in contrast to the government schools, where the staff is more or less-conspicuous by their complete absence.

Socio-economic status (SES) encompasses a number of variables, including family income, parents' occupations, and formal education. Invariably, student's performance is correlated with the socio-economic condition or status of his or her parents. Infact, wards of the average SES parents tend to be higher academic achievers in contrast to the lower SES parents' wards, who are at greater risk of dropping out from the school (Frazer and Wilkinson 1990). This phenomenon could be explained thus- the parents in many lower SES households had little education, which in turns affects the quality of their children's education in variable ways, for example, parents with little education very often cannot help their children with schoolwork. Also, researches indicate that children's early experiences are definitely related to later school success (Laosa 1982). The differences in creativity, thus are found in children belonging to different social classes, and the influence of environmental stimulation on development of intelligence (a corollary of creativity) is well established-upper SES groups contribute a disproportionately large number of intellectually gifted and disproportionately small numbers of mentally retarded children to the total population (McGhee and Lewis 1942, Bayley and Jones 1937).

Table 4

Details of Equality of Means between the Creativity of Government vs Private School Students, and between Boys and Girls Adolescents

Group	*Sample*	*Number*	*Mean Difference*	*Standard Error Difference*	*t-Value at .05 Level*
1. Boys and girls	Boys	103	1.74	3.21	0.54
	Girls	75			
2. Govt. vs. Private	Govt. School	93	15.94	3.07	5.19
	Private School	85			

Conclusion

In an overall appraisal of difference between sexes in ability, achievement, and readiness, one may conclude that differences are very slight, and certainly not sufficient to warrant grouping them into separate classes. There is a considerable difference in the functioning of creativity of the adolescents, enrolled in private run and government run schools. It is strongly felt that if the potential of creativity is to be developed to appropriate fruits, there should be a purposeful effort and attempts in a very encouraging atmosphere, which boosts up their self concept and achievement motivation (Getzels and Jackson 1962, Busse 1981, Torrance 1966), which unfortunately, is at present lacking in the government run schools.

Creativity does not come about in a vacuum. Empirical work carried out by investigators trained in social psychology tells us that there is a direct link between the motivational orientation brought by a student to a task and the likelihood of his or her being creative at that task, and it is the environment that in large part shapes that motivational orientation. Giftedness can be nurtured, if conditions are right for an appropriate interaction to take place between the individual and the environment. Close attention thus must be paid to school climate, if student motivation, creativity, and special talents are to be developed. Infact, motivation is one of the biggest ways to enhance creativity. The development of creativity could be accomplished through *teaching creatively* and *teaching for creativity*. Schools may offer a flexible learning atmosphere, where children can express themselves freely and positively. A good teacher should be an expert in creativity, facilitator of creativity and a practitioner of creative curriculum. The students ought to be given opportunities to exercise their brain, their curiosity and imagination has to be stimulated and unusual ideas and responses reinforced. Some of the steps, which could be implemented at the level of the school (as per our experience), are the following:

- towards realisation of the creative potential, particular attention must be paid to the promotion and maintenance of intrinsic motivation in the classroom.
- there is a direct link between the motivational orientation brought by

a student to a task and the likelihood of his or her being creative at that task, and it is the environment that in large part shapes that motivational orientation.

- particular attention must be paid to the impact of extrinsic constraints on the motivation and performance of gifted children coming from linguistically and culturally diverse backgrounds.
- when children experience the interpersonal context of the classroom as supporting of self-determination, they are more intrinsically motivated.
- gifted and talented students, who consistently approach their class work with high levels of skills, may be specifically impacted by the negative effects of extrinsic constraints, which threaten their perceptions of self-determination.
- teachers must work diligently to create an interpersonal atmosphere, which allows students to feel in control of their learning process.

Acknowledgement

The authors extend their deep sense of appreciation to Dr (Mrs.) S K Pandey, Head of the Education Department, H N B Garhwal University (a Central University), Srinagar (Garhwal) for extending the administrative help, without which the present work could not have been possible and to their colleagues for helping out in the field work.

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Media Studies in School Curriculum : Obstacles, Challenges and Possibilities

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Abstract

Media studies as a subject has at last entered the boundaries of schools though little late. Disregarding media from the school curriculum has always bothered many experts who are working in the field of media studies. Many initiatives were undertaken to introduce children, parents and teachers to the concepts of media studies but all happened out of the schools. One of the key point made by the NCF, 2005, i.e., connecting knowledge to the life outside the school, has actually opened the door for media studies, a subject which has never in the past was given its due importance in school curriculum. It was realised that students' media experiences are as important as their experience with their parents, peers and teachers, and by allowing them to bring their media experiences in classroom, a creative environment can be created where they could get a chance to discuss issues which are very integral to their life. This paper focuses on why media should be a part of school curriculum, how it can be introduced, the present scenario, challenges it can face and some strategies to overcome those challenges.

INTRODUCTION

Media is a very important part of students' lives. They spend great deal of time watching TV, listening to radio, surfing net, reading magazines and newspapers and also take pride in owning a sophisticated toy called mobile phone which gives them an opportunity to do all these activities when they are on move. These mediums bombard them with images, words and sound. These media messages are designed to win their heart and rule their mind. Students are also learning a lot from media. Mass media actually teaches whether media makers intend to do so or not, and students learn from it whether they are aware of it or not. Students are learning so much intentionally or unintentionally that it can be termed as omnipresent non-school textbook. In fact children learn in a variety of ways – through experience, making and doing things, experimentation, reading, discussion,

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asking, listening, thinking and reflecting and expressing themselves in speech writing. They require opportunities of all these kind in the course of their development. The sources through which they learn are innumerable, it is necessary for the educators to explore and understand all those sources through which children learn. Media is one of them.

Yes, it is a non-formal textbook or we can say another school away from school. But what role does these non–formal textbooks have in school. Can schools afford to ignore these textbooks which are very important part of their lives? This raises unavoidable challenges for schools and teachers. Can school teachers join hand with informal teachers and teach. As part of their mission to help young people to become better informed and analytical thinkers, educators should seriously consider media studies as essential part of school system.

Why Media Studies Should be a Part of the School System

Keeping in view the importance of media in society and students' continuous engagement with media, it is important that the students start understanding media rather than just being passive viewer or reader. The way we help children to understand language, social science, science and mathematics, similarly, the time has come that we have to make them understand media. It is contemporary, it is multidisciplinary, it can be easily assimilated into classroom, and it can promote critical thinking skills. It will enable the students to see behind the screen and read between the lines and to be an active citizen of the world's largest democracy. The vision of democracy articulated by the Secondary Education Commission (1952) is worth recalling here and how media understanding fits into the vision is motivating enough for those who would be interested in taking this initiative forward.

"Citizenship in a democracy involves many intellectual, social and moral qualities... a democratic citizen should have the understanding and the intellectual integrity to sift truth from falsehood, facts from propaganda and to reject the dangerous appeal of fanaticism and prejudice..." This is what media literacy initiatives world over propagates. The strategies to implement them may vary in different countries but the idea is to make students reflect critically on media issues. It entails the acceptance of multiple views on social issues and commitment to democratic forms of interaction, and helps children to see issues from different perspectives, and understand how such issues are connected to their lives. The content and language of media products provide ways of looking at the world. The media is a hidden curriculum for students which should be explored.

This has been explored in many countries and is called by various names in different parts of the world like television literacy, critical viewership skills and critical viewing skills. These projects were started with the initiative of an individual or small group and later on it attracted like– minded people and became a success. In New Zealand over 100 schools offer media studies as standalone subject. In Britain media

studies has been a subject for over 30 years and is also well established in Canada. In fact media studies is one of the fastest growing subjects, which needs to be introduced not only at college or university level but also at school level.

What is Media Education?

The big question is what is media studies? What does it include? World over various media education initiatives are defined differently and are interpreted in different ways, so it is important to make a distinction between these different ways of interpreting the concept of media pedagogy. Media and education have been combined differently by different people and this has been referred to by many names like media education, media literacy, educational media, television study, critical viewing skills, etc. Let us have a look at three ways in which media and education can be combined:

1. **Media Education**: This is education in the subject of mass media. This includes teaching students how to use media, especially in order to prepare them for taking up a job in the media industry.
2. **Media Socialisation:** Students know the world through media and they are experienced and competent media users. The objective of such projects is to develop more discriminating audiences.
3. **Educational Media:** Education by means of media which include using various media forms in and for teaching.

In India all these three combinations have been explored. There are many government and non-government organisations and universities offering course in media education. The objectives of such organisations are to train prospective media person.

Media socialisation has been dealt with seriously in NCERT social science text book for Class VII titled *Social and Political Life*. There is a chapter in the book on mass media and communication which includes how media sets agenda and how market has become central to its functioning. The chapter has covered all forms of mass communication including television, radio, films and newspaper and the Internet. Besides, areas like market, technology and media's role in society has been discussed in the chapter. The section on how media sets agenda also contains case studies to help students understand the concepts and exercises to critically analyse reporting by newspapers. In the same book, there is also a chapter on advertising which explains the concept of advertising along with various forms of advertising, and how it manipulates us into buying things we don't need. Similarly many textbooks have integrated media to explain the subject specific concepts.

In majority of the cases the media is used as tool to explain concept, but the idea of understanding media need to be further explored. There has to be a systematic and methodical media input at every stage from primary to upper primary to secondary and higher secondary. There is a need to develop critical media pedagogy.

As far as educational media is concerned, a lot has been done in this field. There are many organisations involved in making educational audio and video programmes, multimedia

packages and learning objects which is used in teaching-learning process.

Central Institute of Educational Technology, a constituent of NCERT, promotes utilisation of educational technologies especially mass media, viz. radio, TV satellite communications and cyber media, either separately or in combinations, to widen educational opportunities and improving quality of educational processes at school level.

How to Introduce Media Education in Schools

Media studies at school level can be offered in the following two ways:

Option I

Integration with already existing subjects.

By integrating it with the subject that already exists in school curriculum. NCF-2005 says that the need for subject addressing contemporary concerns of society is important. But there has been misplaced tendency to address these concerns in the school curriculum by creating new subjects, producing related textbooks and devising methods for evaluation for them. These concerns may be far better addressed if they are incorporated in curriculum through existing subjects and ongoing activities. Needless to say adding new areas as subjects only increases the curriculum load and perpetuates undesirable compartmentalisation of knowledge.

Another concern with the subject like media studies is development appropriateness, logical sequencing and connection between grades. Till now the subject is introduced only at graduation and post-graduation level. If it has to be integrated in school curriculum from lower grades then logical sequencing and connection between the grades is a great task which needs to be taken up with the help of teachers, media educators and media professionals.

Option II

Media studies can be a standalone subject.

If it is introduced as a standalone subject then it will definitely increase the curriculum load. But it can be offered as one of the four elective subjects and also an additional elective in combination with any of the academic electives already available at senior secondary level. Introducing media studies at senior secondary levelhas its own advantages. The students in Class XI and XII will get exposed to various career opportunities this subject offers. Also, adolescents, who have lot of questions which are being answered by media, will get a chance to understand, question, appreciate media. It will also provide them an understanding on how they can express themselves through media. The idea is to provide students with an opportunity to develop life skills which will enable them to analyse these potent forms of modern communication and help students to become wise consumers of media.

Whichever option we choose from the above-mentioned ones, the course on media studies should focus on the following very important aspects:

- to develop an understanding of media in students and enable them to appreciate potential and limitation of various media forms.
- to encourage students to participate in contemporary social processes as active citizens, through their

awareness of the political, social, economic, historical and technological implications of the media.

- to develop skills in students and encourage them to produce creative media message.
- to introduce students to various career opportunities in mass media.

The course should be based on critical pedagogy as it will provide students an opportunity to see issues from different perspectives and understand how such issues are connected to their lives. The subject must provide them with means and opportunities to enhance their creative expression and the capacity for aesthetic appreciation.

The Present Situation

Across the world media education always started outside the school and later it entered the formal education system. India is no exception to this. Institutes like Xavier Institute of Mumbai, Culture and Communication, Chennai and Media Centre of Banglore introduced short courses in media education but it could be introduced formally at school level only in year 2010.

Now when the subject has entered the school boundaries and positioned itself in school curriculum, teachers should be the first one to understand the concept. Biggest challenge in the introduction of this subject which can transform curriculum and teaching is training of teachers.

In the wake of introduction of the new subject, Central Institute of Educational Technology, NCERT recognised the need for formal professional development of in-service teachers and development of curriculum of media studies. At CIET curriculum was developed in consultation with the experts in media and media education. Based on the curriculum, textbook was also developed along with the manual which includes a number of activities that would help teachers and students to understand media.

Textbook is designed in such a manner that it not only introduces students to the many facets of media but also make the subject relevant to their age group. The aim is to familiarise students with a variety of important questions about media as well as introducing them to the various problems that can be solved through media intervention. Each chapter is written as self-contained unit but the textbook follows a deliberate organisational sequence. Each chapter contains case studies, class and individual exercise, boxes and further discussions of key concepts and questions for consideration.

Challenges Ahead

Training Programmes: As mentioned the biggest challenge while introducing this subject at school level will be the lack of trained teachers in this subject at the school level. CIET, NCERT recognised the need and organised formal professional development training programmes for in-service teachers. Various teachers' training programmes are organised for teachers to teach this new subject. The teachers from various schools participated in the training programme and got motivated to take up this subject at school level. Teachers not only got a chance to learn how to analyse media

messages but they also got chance to know what happens behind the screen. Teachers explored the areas like script writing, camera handling and anchoring. The experience was wonderful and the following paragraphs summarise the kind of experience teachers had during the training programme.

"The workshop, 'Media in school curriculum' workshop was very enlightening for all the teachers. It has shown us a new way of looking at various aspects of media. I would surely like to take up this subject in my school.. There is so much to explore, discuss, experiment while teaching this subject."

Ms Shweta Malik, DPS Rohini, Participant, Media Studies Training Programme, August 25-27, 2010

"The three-day training programme gave us a lot of information on various types of influence media today has on students. Teachers through this programme were given lots of information as to how they can start media clubs to create enthusiasm about this subject among students."

Ms Sapna Verma, St. George's School, Alaknanda. Participant, Media Studies Training Programme, September 7-9, 2010.

Infrastructure Requirements: Few schools have resources set aside for teaching media, video productions, etc. Since the subject demands the facilities like computers, editing software, video cameras, screening rooms, etc., there can be apprehension amongst schools to start this subject.

Overcoming Challenges: A Roadmap

Challenges are many but if the subject is handled properly then it can be one of the important subjects in the coming years. The challenges and the problems will be there as in the case of any new initiatives but to minimise the hurdles continuous teacher training programmes should be organised. This new subjects should be introduced in such a manner that minimum infrastructure is required or schools should be able to run the course with the existing infrastructure at place and the most important initiatives schools can take is to establish media clubs in schools to begin with. The activities of media club will definitely lay foundation for this new subject.

Simultaneously efforts should also be made to introduce it at the lower level and the systematic and organised curriculum needs to be worked out to avoid repetitions and overlapping at different levels.

Conclusion

Media has always been the part of student's life and it will always be. Through the mass media come plethora of information in the form of moving images, still images, sound, multimedia and online material that can be valid or invalid, positive or negative. Students' interaction with media can affect the way they eat, study, work and relax. They are like the air we breathe, omnipresent but rarely considered. Students are so immersed in these messages that they hardly notice how they shape their perceptions, belief and actions. The course in media studies will encourage students to seriously consider the mass media and the role it plays in their lives. The mass media was there in schools too as teaching aid but as a subject it has just entered the school boundaries. The

teething problem will be there in the beginning but teachers and educators have to nurture it so that it blossoms into a successful media literacy programmme.

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An Evaluation of Continuing Education Programme in Puducherry

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Abstract

The Continuing Education Programme was launched in Puducherry under the aegis of National Literacy Mission to create facilities for retention of literacy and application of functional literacy for improving living standards, to disseminate the developmental information, to create awareness on national concerns, to promote employable skills and to create learning environment through establishing libraries and reading rooms, cultural and recreational activities. The present paper deals with assessment of the performance of the Continuing Education Programme in terms of physical and infrastructural components created and quality of delivery of programme components. The findings provide an insight to the programme administrators about the status of the programme and steps to be taken to improve its quality of delivery mechanism and also provides suggestions.

Introduction

Puducherry is one of the tiny states of India having four districts scattered in different localities of the southern region of the country. It has a population of 9, 74,345 as per 2001 census. Among them 49.99 per cent are men and 4, 87,384 are women. Further, 38.29 per cent of them are in the productive age group of 15 to 39 years and19.29 per cent of them are in the age group of 40 to 49 years. The proportion of elderly age group of 50 and above years constitutes 15.45 per cent. Contrary to the above, only 26.96 per cent of population are in the age group of 0 to 14 years. Among them

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44.60 per cent are in the age group of 0 to 6 years and rest of them are in the age group of 7 to 14 years. The distribution of the population clearly shows that there are more number of aged people and less number of youngsters in the state. In terms of gender-wise distribution of the population there are more number of females in the age group of 16-39 and above 50 years. Among the other groups females are low in number. In terms of literacy, majority of the men are literates and literacy rate among women are low.

The area-wise distribution of illiteracy shows that 66.57 per cent of illiterates were found in the urban areas and 43.43 per cent of them were in rural areas. Further, the gender-wise distribution of illiterates among the rural and urban areas also showed the similar trend. It was also found that more illiterates were found in urban area and more female were illiterates in comparison with men in rural and urban areas. In terms of literacy, majority of the literates were found in urban areas and more men were literate compared to the women. Among the literates 1.53 per cent, i.e., 10,668 of them were literates from formal educational background. Out of them, 7640 are in urban areas and 3028 are in rural areas. Among these groups, men outnumbered women. The educational background of the population with below primary education constitutes 9.6 per cent to the total literates and 26.23 per cent population with primary level. Among them, female representation was more than men. Similar trend prevails in urban areas. However, it is vice versa in rural areas. The respondents with middle level of education constitute 23.39 per cent. Further, 18.08 per cent of the respondents have matriculation or secondary education background. The representation of graduates constitutes 9.82 per cent.

District-wise Literacy status

The state of Puducherry has 4 districts viz. Puducherry, Yanam, Mahe and Karaikal. Puducherry is the capital and the biggest district. The population in the age group of 15-35 in Puducherry district is 2, 83,825. Out of them, 2, 52,664 are literate and 31,161 of them are illiterates. In case of rural areas, there are 72,855 literates and 14,715 are illiterates. In case of urban areas there are 1, 79,809 literates and 16,446 are illiterates. In case of Yanam, there is a population of 12,119 and all of them are in urban area. The district Mahe has a population of 13,607 and majority of them are literates, i.e., 13,423. Only 184 of them are illiterates. Karaikal which is located in Tamil Nadu has a population of 63,567 in the age group of 15-35. Among them 58,373 are literates and 5,197 of them are illiterates. The illiterates are more in rural areas (2,371). Among the literates, more men are literate than the women. In case of illiterates, more women are illiterate than men. Among the 4 districts, Mahe has more literacy rate followed by Karaikal and Puducherry. In case of rural literacy, Karaikal stood first followed by Puducherry. In case of urban literacy, Karaikal and Puducherry have highest literacy rate. The distribution of the population in the age group of 15 to 35 in terms of literacy, gender and area in the four districts of the state shows that the literacy percentage among the urban

areas are found to be more than the rural areas. However, in case of Karaikal the literacy percentage among the rural areas is more than urban areas. The gender-wise distribution of literacy shows that there is a wide variation among the men and women. However, the variation is very low in case of Mahe district. The literacy rate among the age group of 15-35 years is more in case of Mahe district followed by Karaikal and Puducherry. Yanam has 70.93 per cent. Similar trend prevails in case of the both the gender groups.

Level of Education Among the Literates in Terms of Area and Gender

The data (Reddy, 2009) shows that there are 10,668 literates in the state without any educational levels and among them 7640 are from urban area and 3,028 of them are from rural areas. Among literates, there are 1,41,966 persons in the middle level of education followed by matriculation/secondary education, i.e., 1, 25,899. The pupil studying in higher secondary / pre-university is 54,479. In case of primary education 1, 82,684 children are enroled and studying in the schools. There are 96,631 literates with below primary level of education in the state. Further, there are 68,364 students pursuing at graduate level in the state. The trend shows that there are more males at all levels of education except in primary level were more girls are enroled than the boys. There are more population in the urban area with literacy with out any educational level than in the rural area. It is also same in case of other levels of education. This is due to the fact that the urban population is more than the rural population. Further among the men and women, there were more men at all levels except in the primary level where there are more girls than the boys. It is a clear indication that the parents have realised the importance of education for their girls and started enroling them in the schools. Hence in future, the participation of the girls will be on par with boys and the gender difference will be decreased.

Literacy Promotion Programmes

The literacy promotion programmes in Puducherry have been taken up seriously from 1978 under the aegis of National Adult Education Programme by adopting centre based approach and continued till 1989. During this period, the state has implemented Farmers Functional Literacy Project, Rural Functional Literacy Project and State Adult Education Programme. The second phase of the literacy efforts has been initiated during 1988 under the aegis of National Literacy Mission by launching the Total Literacy Campaign. All these efforts have culminated into the phase III in terms of launching post-literacy campaign for the benefit of neo-literates. Later in order to strengthen the movement of literacy and for creating learning society, the Continuing Education Programme was launched.

1. Total Literacy Campaign (TLC)

Under the aegies of National Literacy Mission, Puducherry has launched Total literacy campaign under the title 'Operation Arivoli' which was launched on 21-07-1989 to cover the illiterates in the age group of 15-40 years. The initial survey has identified 99,958 illiterates.

During the environmental building, the programme identified 10,000 committed literacy volunteers who were willing to spare their time and service for the cause of literacy. In order to impart training to field functionaries, three-tire training system was evolved and trained 100 key resource persons, 1,000 master trainers and 10,000 volunteers. Further, in order to impart literacy, the literacy primers with three parts have been designed with inbuilt evaluation facility. The programme was successfully organised and external evaluation was conducted by Bharatiyar University, Coimbatore on behalf of the Government of India. The evaluation has revealed that the State has attained 89 per cent of literacy among the participants of the programme as per the literacy norm. Recognising its efforts in promotion of literacy, the state has been awarded with prestigious 'King Sezong' award by UNESCO during the year 1991.

2. Post-Literacy Campaign

After successful implementation of the total literacy campaign, the post-literacy phase of the programme was initiated during the year 1991 and it has extended till up to 1995. During this period the programme apart from neo-literates of TLC has also covered non-literate school dropouts, frazil literates of formal education. The state government has utilised the grant that has released prior to the PLC period towards starting the post-literacy programmes under Jan Shikshan Nilayams for the benefit of the neo-literates of RFLP and State Adult Literacy Programme. Out of this grant 2.64 lakhs has been incurred towards the items like furniture, cycle and library books and sports material.

The grant that has been released towards Jan Shikshana Nilayam has been rescheduled for providing non-recurring and recurring items for 'Arivoli Thodarbymaiyamo' (ATM). Each ATM has engaged one to three volunteers to perform its functions. Each ATM has enrolled 75 to 100 neo-literates and conducted classes and library activities in the evening from 6.P.M to 8.P.M, three days in a week, i.e. on every alternative day in the week. The centres have to ensure total enrolment of the school going children, organise literacy and post-literacy classes, and disseminate information on development programmes and self-employment. While using the facilities that have been provided to the centres viz., newspapers roll up boards, posters and printers. Before launching the programme, the volunteers were given training to equip themselves to discharge their functions as incharge of post-literacy centres. During the course of organising the centres, the volunteers have arranged literacy teaching for the illiterates, provided opportunities for the neo-literates for retaining their literacy skills. Further, in order to disseminate information among the community about the development programmes, they have arranged guest lectures by inviting functionaries of various development programmes, arranged study tours for the benefit of the neo-literates to acquire knowledge on developmental progr-ammes, constituted various committees such as women committees, village committees, academic committees, to discuss the problems coming in the way of implementation of the programmes and to find ways and means to solve

them. All the centres have taken up a new activity viz., mapping out the resources available in their villages and plan themselves to explore them to meet their needs. In order to promote the reading culture among the neo-literates, a library was established in the centre with adequate books along with daily newspapers and magazines. Further to strengthen it and make the community as partners in it, they organised book collection drives and collected a good number of books. In order to develop the scientific temperament among the community they organised slide shows on scientific advancements and the importance of the literacy in making use of it.

3. Continuing Education Programme

The successful implementation of the Total Literacy Campaign and the Post-Literacy Programmes has improved the literacy percentages significantly. In order to help the neo-literates to practice the literacy activities in their day-to-day life and to create educational environment for helping them for their furtherance of education, a broad based Continuing Education Programme to cover all the segments of the society (i.e., the neo-literates who completed the functional literacy/post-literacy programmes under TLC/PLP or other programme, school dropouts, pass-outs of non-formal stream and all other members of the community interested in availing opportunities for lifelong learning) and to nurture the fragile literacy learned by the participants, the TLC and PLP were launched. The major aim of the programme is to retain the fragile literacy learned during the Total Literacy Campaign and Post-Literacy Programme and to strengthen it by creating opportunities to use and practice it for their furtherance.

Objectives of the Continuing Education Programme

1. Provision of facilities for retention of literacy skills and continuing education to enable the learners to continue their learning beyond basic literacy.
2. Creating scope for application of functional literacy for improvement of living conditions and quality of life.
3. Dissemination of information on developmental programmes and widening and improving participation of traditionally deprived sections of the society.
4. Creation of awareness about national concerns such as national integration, conservation and improvement of environment, women's equality, observance of small family norm etc. and sharing of common problems of the community.
5. Improvement of economic conditions and general well being as well as improvement of productivity by organising short-duration training programmes, orientation courses for providing vocational skills and by taking up linkage activities for establishing direct linkage between continuing education and development activities.
6. Provision of facilities for library and reading rooms for creating conducive environment for literacy efforts and a learning society.
7. Organisation of cultural and recreational activities with effective community participation.

In order to operationalise the objectives of the programme, a Continuing Education Centre (CEE) was established in the communities wherever, there are 500 neo-literates and 2500 population. These centres are manned by a functionary known as *prerak* who is a volunteer opted to work for the programme. The centre is expected to promote literacy and post-literacy programme, functions as a library and reading room, conducts sports and games, cultural and adventurous activities, recreational programmes, vocational training programmes, extension lectures, discussion group, dissemination of developmental information and acts as a communication centre. Keeping in view of the above functions, it is expected that the programme will be successful, only if the community owns it and participate effectively in all its activities, extends support to mobilise the financial and material resources for running the centre on a self sustained manner by the community itself. Further, it was visualised as a mechanism for promoting integrated human resource development, and provided required physical infrastructure to organise all the programmes leading to the lifelong learning and to create a learning society. In addition to the regular activities, the programme has also initiated the Equivalency Programme, Quality of Life Improvement Programme and Individual Interest Promotion Programme, Skill Development and Income Generating Programme, Future Oriented Programme. In order to organise the CE centres, adequate financial assistance was also provided. Initially, the Central Government had provided financial assistance for establishment and running of CECs. In the long run, it is expected that all such CECs should be self sustained. The Central Government provides 100 per cent finance to a district for the first three years of the project and thereafter, the cost is to be shared on a 50:50 basis by the central and state governments for the next two-three years. From the sixth project year onwards, the states are expected to bear the entire expenditure. In other words, the programme should become self sustained either by itself or with the support of the respective state government after five years.

In the case of Puducherry, in continuation of the Post Literacy Programme, the Continuing Education Programme was launched in the state to institutionalise the post literacy and follow up programmes. Before launching the programme, the programme has identified 1,00,000 neo-literates spread over in four districts of the state i.e., Puducherry (77,5 40), Karaikal (18,624), Mahe (1,506) and Yanam (2,320). The neo-literates identified for the programme includes school dropouts, passouts of primary schools, passouts of the NFE Programme and all other community members interested to avail the facilities in the Continuing Education Centres. In order to operationalise the programme, 172 CE centres and 28 Nodal CE Centres were sanctioned. The Continuing Education Programme of Puducherry was approved and sanctioned in 1997 by

the Government of India. The programme was launched formally on 12th June 1998. While sanctioning the proposal the Government of India has accorded concurrence for establishing 172 Continuing Education Centres and 28 Nodal Continuing Education Centres with an initial grant of ₹ 50,16,000 and released ₹18,24,000 as first installment. As a first step in launching the programme a door-to-door survey has been taken up for identifying the neo-literates. During the survey 99,990 neo-literates were identified as target of the programme. The programme was operationalised in 1998.

In order to attain the objectives of the Continuing Education Programme, the programme was launched in two phases. On the whole 172 Continuing Education centres and 28 Nodal Continuing Education Centres have been sanctioned. Out of which 173 Continuing Education Centres and 19 Nodal Continuing Education Centres have been functioning and rest of them could not be organised. Each CEC caters to the needs of 1,000 to 1,500 neo-literates and 2,000 to 2,500 neo-literates through the activities of Nodal Continuing Education Centre. All the Centres are located in Government Schools, Madhar Sangham and youth clubs. The centres are functioning between 6 to 8 P.M except Sunday.

Keeping in view of the important role played by the Continuing Education Programme in nurturing and promoting the literacy, creating opportunities for further education, usage of literacy in their day-to-day life, promotion of skills for employability, elicit peoples' participation in the developmental programmes, role in promotion of democratisation in functioning of the institutions etc., there is a need to provide feedback to the programme implementers and administrators to identify the strengths for replication and to rectify the weaknesses of the programme. Further, the prerak who is incharge of the Continuing Education Programme is also responsible for attaining the above. In order to understand the performance of the programme, the Government of India has designed evaluation of the programme at different stages of implementation of the programme i.e., first external evaluation at the completion of the two years of the programmme, appraisal report by SLMA /State Directorate of Adult Education after 3 years of its existence. The second external evaluation will be undertaken after four years of its implementation. Again, the appraisal report of the SLMA/ SDAE and third external evaluation will be taken up after 5th and 7th year of programme. It was envisaged that while undertaking the above, special attention should be given to the quality of the infrastructure, quality of the preraks, whether the programmes are need based, whether there is community participation, convergence with the developmental programmes implemented in the district, sustainability of the programme etc.

As a part of the evaluation of the Continuing Education Programme, the National Literacy Mission has provided a list of three empanelled evaluation agencies to the state of Puducherry for

assigning the evaluation task to one of the agencies. The State Government of Puducherry has chosen the Department of Adult and Continuing Education, Sri Venkateswara University to evaluate its Continuing Education Programme. As this is the first external evaluation of the Continuing Education Programme, the evaluation was aimed to identify the physical and personal infrastructural component-the programme and quality of the delivery of the programme components. Under physical / personal infrastructural components, an attempt has been made to study the aspects viz., location and accessibility of the centre, furniture, availability of items, books and reading materials provided to the centres, seating arrangements made, availability of the facilities such as lighting, drinking water, toilets etc., and sports and recreational facilities. In case of quality of delivery of programme components, stress was laid on sustainability / community involvement, *prerak* quality, ability, training and performance, planning and convergence with other ongoing programme, mopping up activities, quality of books, quality of services rendered in running the library and programme-wise delivery of the four target specific programmes viz., equivalency programme, quality of life improvement programme, income generating programme and individual interest promotion programme. Keeping the above in view, the evaluation was taken up with the following objectives:

Objectives of the Evaluation

1. To study the infrastructural and physical facilities available in the CE centres.
2. To study the sustainability of the programme after cessation of the Government of India assistance.
3. To identify the measures initiated by the districts in promoting the convergence of the literacy programme with other developmental programmes.
4. To study the efforts made in implementing the mopping up programme to reach the uncovered target.
5. To identify the performance of the target-oriented programmes implemented in the State.

Keeping in view of the above objectives, an effort has been made to gather the information both from primary and secondary sources. The information relating to the preliminary arrangements made for launching the Continuing Education Programme, establishment of the centres, selection and training of the functionaries, monitoring system evolved, coverage of the target, efforts made for promotion of convergence of the literacy with the other developmental programme etc., were collected from the secondary sources. The primary information about the functioning of the programme was collected through personal observations of the evaluation team and by eliciting the information from the stakeholders of the programme. The methodology adopted by the evaluating agency is as follows:

Methodology

The state of Puducherry is having 4 districts viz., Puducherry, Karaikal, Mahi and Yanam. Among the four, Puducherry is the biggest district and capital of the state followed by Karaikal. Mahe and

Yanam are the smallest in terms of geography and located far away from the state headquarters. The Continuing Education Programme though, it was launched in all the districts, but in due course of time, it has limited to Karaikal and Puducherry. Puducherry has seven communes, Karaikal four communes. The Continuing Education Programme was launched in all the blocks, with 172 Continuing Education Centres and 28 Nodal Continuing Education Centres. Out of this, 151 Continuing Education Centres are functioning in Puducherry and 35 in Karaikal. The norm of External Evaluation of Continuing Education Programme as stipulated by National Literacy Mission is to select a sample of 50 Continuing Education Centres and 5 Nodal Continuing Education Centres or 10 per cent of the total Continuing Education Centres. Keeping in view of the limited geography of the district, 50 Continuing Education Centres were selected for comprehensive evaluation of the programme which includes five Nodal Continuing Education Centres. Out of this, 30 centres in Puducherry and 20 in Karaikal were selected as sample of the study randomly. From each centre, five participants, two participants each from target specific programmes, one community representative, one committee member and oneself help group member was also selected randomly from each centre.

The sample frame is as follows:

Number of Continuing Education Centres	50
Preraks	50
VEC/CEC Committee members	50
Participants of Continuing Education Programme	250
Target specific programmes	50
Equivalency Programme	50
Quality of Life Improvement Programme	50
Individual Interest Promotion Programme	50
Income Generating Programme	50
Perspective participants	50
Self help group members	50
Learners of mopping up programme	50
Community representatives	50
Total	**850**

Tools Used for the Study

In order to elicit the data from different sources of the programme, the investigator has devised different tools by giving priority to the physical infrastructure and quality of delivery of the programme components as this is the first evaluation of the programme. The quality of delivery of programme component viz., sustainability and community involvement, *prerak's* quality, ability, training and performance, convergence with other developmental programmes done by the ZSS and mopping up programmes, quality of the books and services rendered by the library, performance of the target specific programmes were also assessed by collecting the information directly from the beneficiaries and also from the records maintained at different levels. In order to elicit the above information from primary sources, different tools were designed keeping in view of the

guidelines supplied by the NLM. The tools thus designed were as follows:

1. a schedule for the *prerak.*
2. a schedule for the CEC participant.
3. a schedule for the VEC/CEC committee members.
4. a schedule for the community representatives.
5. a schedule for the participants of mopping up programme.
6. schedules for the target-oriented programmes.

a. equivalency programmes.
b. income generating programme.
c. individual interest promotion programme.
d. quality of life improvement programme.

7. schedule for the self-help group members.
8. literacy test for learners under mopping up programme.
9. investigators observations.

Data Collection and Analysis

The investigator has conducted the evaluation in four stages. In stage I, the investigator has made a preliminary survey of the district to discuss with officials of the ZSS and evolved a strategy for evaluation. Further, information relating to the secondary data was also collected and a workshop with academicians, field functionaries, administrators etc. was organised for designing the tools. Based on the information collected during the field visits and the workshop conducted, has yielded the required tools. In the second stage, the investigator has selected the field investigators for data collection. Further, he also organised a one-day orientation programme to expose them to the tools and the ways and means of getting primary data both qualitative and quantitative from the selected sample. In the third stage, information was pooled together, analysed and tabulated. Wherever, the shortfall of information, the investigator again visited the district and collected information from the sources and finally the report was finalised.

Findings

The findings of the study are arranged in two sections. Section I presents the administrative efforts in terms of training, monitoring, convergence, best practices finance etc. Section II presents the findings relating to the programme components viz., physical and infrastructural components and quality of the delivery of the programme components. The details of the findings are as follows:

Section – I
Administrative Efforts

1. *Human Resource Development:*

In order to equip the functionaries to meet the needs of the programme, the functionaries working at various levels have been trained. The Deputy Director and Project Officer have attended a training programme conducted by NIRD, Hyderabad, from 6 to 11 March 2000. The other functionaries, viz. Key Resource Persons, Resource Persons, have been trained by the State Resource Centre, Chennai, to equip them with the skills and competencies so as to train the nodal *preraks*, *preraks* and volunteers. The training for the filed functionaries has organised in collaboration with the State Resource Centre and Non-formal, Adult and Continuing Education, Tamil Nadu.

2. *Monitoring*

For effective monitoring and feedback, eight commune coordinators were drafted from among the secondary school teachers on temporary basis to visit and monitor the centres in the commune. Out of them five commune coordinators were allocated to Puducherry, two to Karaikal and one to Yanam. Further, the Deputy Director, (AE) and project officer is expected to supervise all the centres in Puducherry, Karaikal and Yanam. The programme was regularly reviewed at state level by the State Director of School Education with the programme functionaries. The nodal *preraks* meet twice in a month in the central office and the Deputy Director, Project Officer and commune co-ordinators will also participate in these meetings. In addition, the Deputy Director reviews the progress of the programme by convening a weekly meeting with commune coordinator and project officer. Each commune is supervised by one commune coordinator, two nodal *preraks* on an average each centre is monitored by the above atleast once in a week. In order to submit the monitoring returns the district has devised an initial report, monthly report form for *prerak* and nodal *prerak*, consolidated monthly report will go from commune coordinator to the state government for onward transmission to the Government of India. In addition, at the grassroot level, village education committees have been constituted with the head master of the local school as its president and the member were drawn from *Madhar Sangham* volunteers and youth clubs. In order to ensure the community participation, the village education committees have been meeting once in a month to review the centres performance. Further all the *preraks* have been meeting once in a month at the central office and review of the performance of the centres and programme.

3. *Convergence with Developmental Programmes:*

(a) The State Resource Centre, Chennai, has adopted the Oulgarate commune of Puducherry for one year for setting up of the self-help group.

(b) The State Resource Centre has organised short term trainings in phenyl making, chalk piece making and cleaning powder making to the members of the self-help groups.

(c) The State Resource Centre has organised a one-day workshop with the development department officials to promote better coordination.

(d) The state government has convened a meeting with the voluntary organisations and NGOs for co-ordination for better functioning of the CE Centres.

(e) The Directorate of School Education has arranged a meeting with heads of all the offices to achieve 100 per cent literacy through participation of 1 lakh students.

(f) Awareness programmes and guest lectures have been organised in co-ordination with the other development departments.

4. *Mopping up programme:*

The programme has identified 16,920 non-literates and enrolled them in the continuing education centres so as to promote the literacy among them.

5. *Financial assistance received*
The state has received a grant of ₹ 1,20,99,304/- in five installments from the NLM. In other words, the expenditure for the programme is ₹ 1,20,99,304 /- The details of the grants received from various sources are as follows.

Table 1
Grant-in-Aid received from Government of India

S.No	*Year*	*Source*	*Amount*	*Date of receipt*	*Installments*
1	1997	NLM	18,24,000	25/07/1997	Ist year Ist installment
2	2001	NLM	31,92,000	13/03/2001	Ist Year IInd installment
3	2001	NLM	32,13,000	18/11/2003	IInd Year Ist installment
4	2007	NLM	30,58,000	31/08/2007	IIIrd Year Ist installment
5	2007	NLM	8,12,304	27/09/2007	IIIrd Year IInd installment
		Total	**1,20,99,304**		

6. *Best practices adopted by the programme*

(a) *Literacy wall*

In order to create conducive environment, all the Continuing Education Centres have maintained a literacy wall to sensitise the community on vital issues of the development in the community at large. These walls act as information window in the community.

(b) *Self-help groups*

In order to improve the participation and efficiency of the centres, self-help groups were formed at the central level to ensure women's participation and also for the empowerment of the women. It was reported that there were 173 self-help groups attached to the continuing education centres. These groups were instrumental in organising the women and have become means for their empowerment.

(c) *Book collection drive*

To enrich the libraries of CECs and to satisfy the reading interests of the neo-literates, the community has taken up book collection drive wherein the used reading materials of all the standards were collected and placed in the CEC library for wider use of the community. In addition to the above, all the centres were supplied with daily newspapers, *Puduvai Seithigil* a monthly bulletin published by Information and Publicity Department, Puducherry. *Yetram* a monthly magazine of State Resource Centre Tamil Nadu, 3 weekly magazines (*Kumudam Ananda Vikadan, Kalkanda*) and 3 monthly magazines (*Kokulam, Kathiar, Ambudlima, Marthuvar*) were supplied to all the centres. In addition to the above periodicals a set of 74 neo-literate books published by the State Resource Centre were also provided. Further, slates have

been issued to the neo-literates of Continuing Education Centres.

(d) *Sports and play materials*
In order to promote the games and sports, all the centres were provided with carom board, volley ball and net, skipping row and Tennikoit and rings.

(e) *Supply of radio, tape recorder and sewing machine*
The materials i.e., radio, tape recorder and sewing machine that were purchased during 1980 under Centre Based Adult Education Programme have been supplied to the selective nodal Continuing Education Centres for enriching their activities.

(f) *Supply of bi-cycles*
All the *preraks* were provided with bicycles to improve their performance and maneuverability.

(g) *Vocational training programmes*
The state has organised short-term vocational training courses in selected communes for the benefit of the women groups of continuing education centres with the state funds provided under multi-purpose training institute. The institute has organised the programmes on embroidery, handicrafts, mat weaving, candle making, chalk piece making, tailoring and embroidery, *agarbatti* making, phenyl, washing and detergent powder making, machine embroider, wire knitting, woolen embroidery, screen printing, terracotta dolls making, pickle and *appalam* making, soft toys making etc. These programmes have facilitated the women to empowerment themselves to participate effectively in the production and service sector to enhance their income.

(h) The programmes functionaries in collaboration with other developmental departments have organised polio drops awareness programmes, leprosy awareness camp, national integration week, human rights day, flag day, eye and blood donation camps.

The pattern of release of the grant-in-aid for implementation of the programme clearly shows that there was an enormous delay in release of the grants. This delay has its impact on the morale of the functionaries and in quality of delivery of the programme inputs.

Section II

Evaluation of Programme Components

The present evaluation has made emphasis on the physical arrangement, location of the centre, accessibility, acceptability, seating arrangements, facilities like lighting, drinking water, toilets, furniture, books and reading materials, sports and recreational facilities made available to the centres. Further, the quality of delivery of the programme components in terms of *prerak* qualities, ability, training, performance, relevance and suitability of the reading materials, newspapers and magazines supplied, community participation in sustaining the programme, convergence of the centre activities with other ongoing programmes, performance of the centre in terms of dissemination of the information, mopping up activities and

performance, evaluation of target specific programmes, organisation of cultural and games and sports activities etc. In order to assess the above, the information was generated from the stakeholders of the programme viz., the participants, community, functionaries and administrators, committee members, SHG members etc., The information thus collected was consolidated and presented under following broad headings.

I. Physical and Infrastructural Components

1. *Location, acceptability, accessibility and adequacy:* The location, acceptability, adequacy of the centre suitable to the beneficiaries play a greater role not only in attracting the target, but also in retaining them for longer hours and longer duration in the centres. Keeping in view of the geographical conditions of the state, the Government of Puducherry has taken decision to locate the Continuing Education Centres and nodal CECs in the Government Primary / Middle / High Schools, *Madhar Sangam* (voluntary organisations) and youth clubs. The observation and opinion of the participants about the location of the centres revealed that majority of them expressed their satisfaction about the accessibility and adequacy in terms of space and seating arrangements. At the same time, a section of the people and the observations of the investigators reveal that regarding the accessibility of the centres for women during night, they expressed their reservation about timings. Inspite of these, the location of the centres is acceptable and accessible for the target group. The space that is provided to the centres is sufficient for the beneficiaries enrolled in the centres.
2. *Furniture:* In view of the location of the centres at the schools, all the centres have adequate furniture such as tables, chairs, almirahs, books racks etc. Further, the seating arrangement made available for the teachers and students were also utilised by the *prerak* and learners.
3. *Quality and quantity of the reading materials:* Maintenance of the library and reading room is one of the important functions of the Continuing Education Centre. The purpose of the creation of this is to create an educative environment wherein, the community can practice their skills and acquire the knowledge to satisfy their learning needs and to recreate themselves. Keeping its important role, the CE Centre is expected to keep a large number of reading materials catering to the needs of different sections of the community and also to maintain newspapers for disseminating the latest information. Further, it should also maintain a reading room where the community can sit together and make use of their literacy to satisfy their lust for learning. Keeping the above backdrop, an assessment was made about the functioning of the libraries and reading rooms of the selected CECs. Though, it is a very important function of the CEC, the selected centres have 70 to 120 titles of the

books in the stock register. In reality, all of them have become old and appears not attractive to the participants. However, all the centres have been supplied newspapers. In other words, the CE Centres are failure in terms of functioning of the library and reading room.

4. *Sitting arrangements:* The comfortable seating arrangements are one of the pre-condition for attracting and retaining the participants in the Continuing Education Centres. The personal observation and information collected shows that all the centres have adequate and comfortable seating arrangements in the form of benches, wooden planks and clean flooring where the participants can spend their time comfortably. However, in two cases, the participants were made to sit in the verandah of the schools, where the school headmasters have not allowed the CE to function inside the classroom. This was due to the reason that the some of equipment kept in the school has been missing.
5. *Facilities :* The personal observation of the team shows that only one fourth of the centres have separate reading room facility and rest of them are functioning in the single room. Further, there is no separate toilet facility in the centres. The centres are equipped with electricity, well ventilated. And there is no drinking water facility in all the centres.
6. *Sports and recreational facilities:* In case of organisation of sports and recreational activities, it was found that whatever the material that has been supplied to the centres about a decade back was not useable. Hence, the preraks have organised the sports which do not require any equipment and also by borrowing some of the items from the community. The centres have organised the activities like caroms, ring ball, kabaddi, musical chairs, lemon and spoon etc., where the participation of women was found to be more. On the whole, the centres were not able to discharge their function in conducting the sports and games to promote integration among the community due to lack of sufficient, suitable and adequate games and sports equipment. In case of recreational activities, the centres have conducted the activities like singing competition, rangoli, drama etc.

II. Quality of Delivery of the Programme Components

1. *Sustainability and community participation:* The Continuing Education Programme was sanctioned initially for a period of five years and it is expected that the centres should be maintained by the community themselves after cessation of the assistance from the government. Further, in order to enrich the activities of the centres, it is envisaged that the community should be involved and elicit their participation in formulation and implementation of various activities of the centres. In order to sustain the programme, there is a need to raise the corpus fund or supplement the facilities by the community to

enrich the learning environment in the centres. The interaction with the community participants, committee members, learners shows that the community participation is sporadic and limited to donation of books, participation in the meetings, facilitating the programmes in arranging them, etc., In other words, the programme is being viewed as a government sponsored programme and the community is not owning the programme.

2. *Prerak quality, ability, training and performance: Prerak* is the actual doer of the programme both inside and outside the centre. All the functions envisaged for the Continuing Education Centres have to be performed by *prerak* only. The quality of the Continuing Education activities like the literacy promotion activities, library and reading materials, organising discussion groups, games and sports, cultural and recreational activities, dissemination of information and to act as an information window depends on the ability and competency of the *prerak*. The profile of the *prerak* shows that majority of them are women, middle aged, belonging to backward castes with moderate income and less than HSC qualification, married, self-employed and experienced in literacy promotion activities. The profile of the *preraks* collaborates with the norms prescribed by the NLM for the selection of the *prerak*. All of them have been trained, acceptable to the community and found that they were able to discharge the functions of CECs effectively, inspite of the inadequacies in terms of books, sports materials etc., No doubt, the credit for the performance of the centres largely goes to the *preraks*. Probably, the training imparted to them might have equipped them to function effectively.
3. *Planning and convergence with other ongoing programmes:* Puducherry is largely urban based and scattered in different parts of the southern states. It was observed by the investigating team through the interaction with the stakeholders of the programme and functionaries that there is a lack of convergence with other programmes conducted by the developmental agencies. In other words, the administration has failed to collaborate with other agencies for the furtherance of the programme. Further, multi-purpose training institute which is directly under the control of the deputy director, adult education, which is expected to train the neo-literates in the selected trades along with the functional literacy was also found that it is not catering to the needs of the neo-literates, but, majority of the enrolled are found to be educated. It is a clear indication that the administration has failed to converge with ongoing programmes in the state.
4. *Mopping up activities:* The programme authorities have reviewed the literacy situation instructed the *preraks* and nodal *preraks* to enroll the illiterates, new entrants in the Continuing Education centre to provide literacy on regular basis. In order to study the literacy performance among the

participants enrolled in the Continuing Education Centres, the investigation team has designed a literacy test and administered it to 250 participants. The background characteristics of the sample shows that majority of them were women (68 per cent) 20-30 years (52 per cent), backward castes (56 per cent), nuclear families (62 per cent) and married (64 per cent). Majority of them belong to lower income groups. The literacy achievement as per the NLM norm shows that 82 out of 250 has attained the literacy norm i.e., 32.80 per cent. In the case of reading, 62 per cent have attained the minimum requirement. The performance in writing is 58 per cent and mathematics 52 per cent. Inspite of this, majority of them could not attain the minimum aggregate score of 70 marks. This clearly indicates that the performance of the mopping up learners is inadequate and hence, the programme administration should take immediate steps to cover dropouts and new entrants.

5. *Quality and quantity of books and quality of service rendered in running library:* All the centres have a library for name sake and supplied about 70 titles of the books produced by the state resource centre during early period of the programme. After that, the library has not been supplied with any additional books. However, in some parts of the state, the *preraks* have taken up a book collection drive for strengthening the CEC libraries. The personal observation and opinion of the stakeholders clearly shows that the centres do not have adequate and relevant reading materials to attract the neo-literates and to create learning environment wherein the neo-literates can practice. It is also observed from some of the centres that the *preraks* have handed over the old books to the programme administration as they are not useful to the community. This is the clear indication about the quality and relevance of the books to the community. Further, in the absence of the learning environment, it is doubtful that the neo-literates who have acquired fragile literacy during TLC and promoted in PLC period have been retained.

6. *Target-specific programme:* The continuing education programme of Puducherry has organised all the target-specific programmes viz., equivalency programmes, individual interest promotion programmes, quality of life improvement programme, income generating programme and future-oriented programmes. All these programmes have been organised as an integral part of the activities of the Continuing Education Centres. The details of the programmes are as follows.

A. Equivalency programmes:

The equivalency programmes was organised by the selected preraks by encouraging the participants of their centres to enroll NIOS. Further, they have also guided the participants to take the examinations for III, IV and VIII standards. The information provided by the *preraks* and nodal *preraks* selected for the study shows

that 36 participants have been identified and enrolled for the NIOS and they were helped to appear for the examinations. However, the programme administration does not have the consolidated information about the participants appeared for the examinations under the Equivalency Programmes.

B. *Individual Interest Promotion Programmes (IIPS)*

The *preraks* who are regularly interacting with the participants were able to identify the interests of the participants and have made efforts to nurture the interests as habits. In order to promote the interests, the *preraks* have organised different activities such as painting, knitting, drawing, sewing, dance, singing of songs etc., The interaction of the *preraks* and learners and the information available in the selected centres shows that nearly 42 participants have been benefited.

C. *Quality of Life Improvement Programmes (QLIPS)*

One of the important objectives of the CEC is to improve the quality of life of the participants of the programme and the community as a whole. The activities of the centres were designed to equip the learners with the skills, knowledge, information and abilities in communication so as to help the learners use them in their day-to-day life. In this regard the centre has organised health awareness, nutrition awareness, sanitation, drinking water, consumer awareness, small family norm, in collaboration with the concerned development programme functionaries. The information provided by the selected centres shows that 38 participants have benefited from these programmes. The participants of the scheduled castes were found to be low. Majority of the above participants have revealed that the programmes were need based and helped them to acquire the information relevant to their day-to-day life.

D. *Income Generating Programmes (IGPS)*

The Continuing Education Programme has organised income Generating Programmes on regular basis in majority of the centres. The sewing machines procured by the directorate in the earlier programme have been distributed to the centres and learners were able to learn the vocational skills. In addition, the multipurpose training centre sanctioned to the Directorate of Adult Education also organised the vocational training programmes on regular basis. The trainees of the vocational training programmes were found to be educated and majority of them belonged to middle income groups. The sewing machines that have been distributed to the centres during initial period of the programmes, thorough servicing and now majority of them are not functioning. Under income generating programme, 100 women have claimed that they have been trained in dress making, pickle making, nutritious drinks making, toy making etc. On the whole, the participants claim that the quality of the programmes are found to be low (15 per cent), moderate (20 per cent) average (38 per cent), above average (20 per cent) and very good

(7 per cent). Among the beneficiaries only 15 per cent of them are using the skills for enhancing their income and rest of them is using for self.

Suggestions

1. All the centres should be equipped with a good number of reading materials and magazines so as to attract the readers. Further, the centres should be provided with televisions so as to receive the latest information.
2. All the centres should be supplied with games and sports and recreational materials so as to promote the above activities.
3. The *prerak* should be re-oriented to discharge his functions effectively and they may be provided with new cycles in the place of old one.
4. The administration should take adequate steps to appoint commune co-ordinators to strengthen the monitoring and supervision.
5. The administration should focus on the target oriented programmes and the project officer of the Department should be given task to rejuvenate the activities with adequate funds and materials.
6. The programme administration should visit the centres on regular basis not only to monitor the progress of the centres regularly, but also to motivate the field functionaries to discharge their functions effectively by solving their problems there and then itself.
7. The Government of India and also the State Government should take adequate steps to release the funds in time so as to stabilise the continuity of the programme without any hindrances.

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Teaching Through Stress Management and Stress Proofing

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Abstract

Reaching stress-free situation demands a balancing between the schematic prioritisation of the contextuality of phenomenological confrontations and dimensionalities of instructional decisions. The shadowing of the designed modalities of stress symptoms and modes of stressors in teaching scenario lead towards the centrality of ineffective teaching syndrome. In order to equip the teachers with the proximal curriculum transaction skills, it is necessary to downsize the stressful situations through stress proofing tactics.

Introduction

Stress is currently an insidious phenomenon that must be recognised and addressed in various professions, because of the complexity of present day society. Teaching profession is more prone to escalating levels of stress. The daily interaction with students and coworkers, and the incessant and fragmented demands of teaching often lead to overwhelming pressures and challenges, which may lead to stress. Where, work stress is unrelenting, some negative physiological, psychological, cognitive and behavioural consequences may result. Pressure due to curriculum laod, inadequate administrative support, poor working conditions, lack of resources and work overload have all been identified as stressors among classroom practitioners and it results in a grossful negligence towards reflective pedagogic practices.

Even though a negligible proportion of shadowing of stress is necessary, creation of extensive stressful

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environment produces not only psychological disturbances but also several harmful effects on the bio system of the individual. The physical and psychological status of the teacher, who is the 'king – pin' of educational scenario influences teaching-learning process and the moulding up of the future generation. The intensive stress declines the professional enthusiasm, affect the quality of classroom teaching and results in complete breakdown, if proper stress management techniques are not adopted.

A number of individual and organisational strategies like exercise, relaxation, behavioural self-control techniques and cognitive therapy techniques have been developed for stress management. These coping strategies will develop the individual to combat existing stress and burnout. But, developing an immune system to prevent diseases in advance is better than to struggle to overcome them. Hence, an effective policy framework which is plugged in with sufficient constructs for stress proofing should be developed and practised.

Schematic Prioritisation of the Terminology

Teacher stress is a phenomenon which emerges due to the stressors. This causes potential threat to the rationality in repertoire of teaching, resulting in a general feeling of not being able to cope with the academic and non-academic endeavours. It leads to the contextuality of emergence of stressful phenomenological confrontations or dimensionalities.

Stress is an automatic, immediate response of the body to any threat, challenge or any kind of change which requires the body to adapt.

Stress is a substantial imbalance between environmental demand and the response capability of the focal organism.

Modes of Stressors in Teaching Scenario

Demands on teachers are increasing, more work, more students and less time (Easthope and Easthope, 2000). Even more demanding than the complexity of teaching is the fact that teaching can also generate a high level of stress fatigue and lead to burn out. The external and internal obstacles that block the progress of the individual towards a desired goal, conflicts and pressures are major sources of stress. Contributing factors to stress in the educational scenario include curriculum rectification, curriculum transaction, classroom management, eligibility determinants, teacher effectiveness, professional development, pupil assessment, inappropriate facilities, unclear expectations, demands from administrative duties, increasing diversification of expertise, time pressures and deadlines, continual overload of work, learning difficulties of students, lack of peer cooperation, dealing with inequities and pupil stress, teacher pupil ratio and lack of discipline.

These stressors are impinge upon today's teachers at every level and in every type of organisation. The effects of such stress can create physical problems (cancer, heart diseases, ulcers etc), psychological problems (emotional outbursts, lowered self-esteem, resentment of supervision, inability to make decision etc. and behavioural problems (tardiness, absenteeism, turnover etc).

The external and internal obstacles that block the progress of an individual towards a desired goal, conflicts and pressures to achieve specific goals or to behave in particular ways are major source of stress. In the present educational context classroom management, curriculum transaction, eligibility determinants, enterprenurial skill development, teacher effectiveness, professional development, assessment, decision making, inappropriate facilities etc. are the major stressors.

Designed Modalities of Stress Symptoms

Awareness about symptoms of stress will help teachers to assess themselves and to determine how they relate to stress and burnout for them personally. Symptoms of stress generally fall into four categories.

a. Physical Symptoms

The physical symptoms of stress are caused by the hormones secreted by the body in a challenging situation. The hormones namely, cortisone and adrenaline raise blood pressure and the body prepare to react to the situation. If the problem is not overcome or when we fail to overcome the stressful situation, these hormones and chemicals remain unreleased into the blood stream for a long period and results in psychosomatic illness and weaker immune system of the body.

An individual experiencing stress experiences physical symptoms like muscle tension, heart palpitations, sweating or hot flushes, shallow or erratic breathing, a feeling of being choked or a sensation with pain in the chest, nausea or abdominal distress, feeling numb or experiencing a dry mouth and urge to swallow repeatedly, asthma, feeling dizzy, unsteady, headaches, constipation, shoulder and back pains, sleep disturbances, decreased appetite, voice loss, weight loss etc.

b. Emotional Symptoms

The emotional symptoms indicating stress are: feeling dispersed and down hearted, feeling detached from oneself, fear of losing control, intense apprehension, fearfulness, increased irritability, tearfulness etc.

c. Cognitive Symptoms

The cognitive symptoms of stress are: reduced interest, decreased concentration, defective linking of content and pedagogic practices, bellowed level of competency, increased distractibility, difficulty in decision making etc.

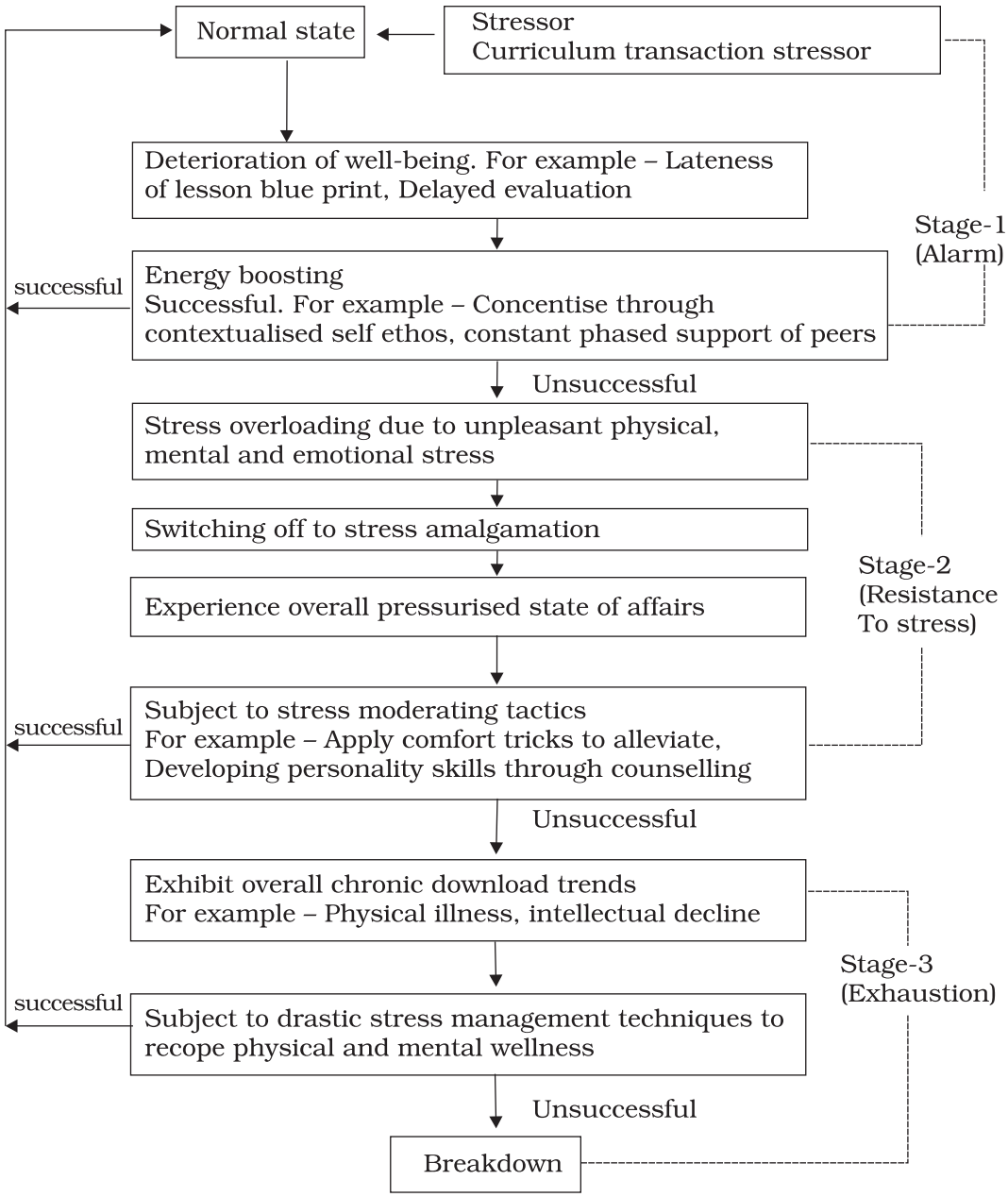
d. Behavioural Symptoms

Restlessness, withdrawal from interpersonal interaction, extensive smoking, sleeping or drinking, loss of hunger, losing touch with friends, feeling isolated in class, procrastination, obsessions, indifferent behavioural patterns, moodiness and grudges, etc.

Integrated Model Depicting Causative Dimensions of Stress Stages and Suggestive Strategies for Stress Management

This model explains how an individual passes through different stages and how he copes with it. Individual teachers are responsible for identifying potential stressors, reducing or eliminating risks, and taking steps to

reduce stress when it occurs by developing a wide range of stress reducing mechanisms. The scheme of the model is shown below.



Stress Management Tactics for Conducive Learning Process

Individuals and organisations cannot remain in a continuous state of stress. Stress management tactics are aimed at diminishing the physical, emotional, cognitive and behavioural burden that is linked to stressful situations in daily life. Following are examples for stress management tactics that can be practiced by classroom practitioners:

- understanding oneself
- self-talk
- skillful methodological orientation
- resort to comfort tricks
- developing positive attitude and action
- optimistic thoughts
- forming effective resource groups
- work sharing
- professional development programmes
- introspective analysis
- personal organisation and responsibility of action
- communication skills and listening skills
- interpersonal skills
- judgement of threat
- stress monitoring
- time management
- self-rewarding

Teachers need training in conflict resolution skills as well as knowledge of many stress reducing mechanisms they can employ to counteract the stress.

Stress Proofing

Stress proofing is a process through which one can make himself stronger, fitter and more able to cope with the effects of stress. Developing an immune system proceed with a context of side stepping the obstacles in advance instead of ploughing through them or scrambling over them.

Stress proofing the workplace is a process that works best where it is fully supported by both management and staff as a means of delivering improvements in individual and organisational wellbeing and excellence. Personal wellbeing and teaching excellence should go hand in hand.

The aims of stress proofing are:

- to achieve physical and mental fitness
- to relinquish unhealthy habits
- to be optimistic and positive
- to achieve self-forgiveness
- to have a purposeful life
- to enjoy life and people
- to be alert and dynamic
- to create positive imaging
- to have energy and vitality
- to be confident

The major areas which require stress proofing to acquire teaching excellence are

1. Communication Systems

Communication is about talking and listening, passing and receiving information, and developing channels through which people feel free to express their opinions and ideas, and hence develop themselves. The formal and informal systems of communication should be improved. The communication system in school should enable to feel that they are valued.

2. Time Management and Work Load

Time pressures and work overload are always very high on the casual factors of stress for any teacher. An organised, efficient and effective approach to time

management is essential for all teachers. Prioritisation of work helps to organise time effectively. The workload should be divided accordingly to the efficiency of the teachers.

3. Staff Welfare

There is a great link between working condition and worker performance. The head of the institution, management, government and local authorities should take the necessary steps like good remuneration, infrastructural facilities, staff wellness programme etc. for staff welfare.

4. Team Formation

Teamwork links people each other and through this, we can encourage creativity in teaching, work sharing, etc. The school must build group dynamic strategies to improve the teamwork.

Stress Proofing through Life Style

Developing a healthy life style is as good as an additional immune system. You can make yourself more immune to the stress, and hence, less prone to the problem they generate. Prevention is better than cure and it is more effective to avoid stress than to treat it. In order to achieve stress proofing, the lifestyle should be changed. Following are some stress proofing tips:

- Internalising relaxation techniques
- effective stress checking
- taking long brisk walks regularly
- developing humour sense
- self-forgiveness
- setting realistic and practicable goals
- timely and desired reactions
- maintaining good social relationships
- developing assertiveness
- practicing yoga and breathing exercises
- realistic self-assessment

Ideal frame of Action for Stress Check

In order to manage the stress experienced by an individual, the first step is to check the stress level and to identify the factors, which contribute. This section enable the readers for it.

- Well-defined objectives
- Appropriate communicative competency
- A sensible approach to time and workload
- A pleasant working environment
- Little ill health and low absenteeism
- High levels of moral and motivation
- A good image in the community
- Consistent and effective team work
- Feeling of membership and loyalty in staff and pupils
- Less conflicts between pupils
- Designing content with a view to develop desirable life skills
- A positive sense of self as an active learner
- Skills of self-assessment

Conclusion

The physical and psychological status of teacher influence and facilitate active construction and decontextualisation of knowledge, mediated by discourse of pedagogical task of teaching to disseminate innovative ideas and concepts for devising an appropriate teaching-learning paradigm. The long-term effects of stress not only affects the physical health but also results in a decline of mental abilities and in appropriate behavioural patterns. The problem of stress is, therefore, needed to

be tackled effectively by cooperation at every level. Appropriate techniques for stress monitoring should be adopted based on the stress analysis. Stress-coping skills should be included in the curriculum of pre-service and in-service training programmes. Implementation of co-operative teaching and pre-assessment can make drastic changes with respect to stress reduction in the educational scenario. The curriculum rectification projects should be discussed in advance with teachers. Periodic evaluation of teachers should be conducted, and dynamic and pragmatic policies for their carreer development should be adopted. In addition to formal reward system, non-monitory rewards and appreciation for better performance should be introduced. Appropriate orientational and professional development programmes should be included in the teacher education scenario for stress proofing the teaching community. Only through a well-knit mechanism of stress proofing, teaching excellence for conducive teaching-learning environment can be empowered.

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Book Review

Tricia Hedge. Teaching and Learning in the Language Classroom

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Pages: xvi + 447

Teaching and Learning in the Language Classroom deals with the most basic question: 'How are languages learned?' There are 11 units in the book which have been grouped into four parts. Each unit begins with reflective questions which set the tone about the issues that are discussed in detail. It also offers readers the scope to critically examine these as the unit unfolds. Reflective questions are followed by a case study or a classroom situation that provides further insight into the theme of the chapter. The beauty of the book is that it does begin with theories. Concepts are introduced with practical examples and through real-life situations that teachers face. The text then explores and puts together the insights based on research studies. These research studies are action researches and classroom observations. Each unit concludes with topics and projects for discussion as well as activities that can be taken up with the students. A list of books with synopses is also given for further reading. The book has a complete glossary and bibliography at the end for further reference.

Part I of the book titled 'A Framework for Teaching and Learning', comprises three units. Unit 1 titled 'Learners and Learning, Classroom and Contexts, raises issues that are basic to language teaching and learning, for example – the tasks/activities should reflect the real would outside the classroom. It also enlists interactive methodologies and appropriate materials. Quoting Krashen, Chomsky, Capser et al Hedge asserts that for second language acquisition also meaningful learning situations are important like in first language learning. This implies a need for a range of authentic materials for classrooms and encourages interaction in the classroom. Errors, that are bound to take place because language learning is a creative classroom process, are seen as steps to learning.

In this process a positive attitude, aptitude and motivation are a must both on the part of the learners and the teacher. The authoritarian role of the teachers needs to undergo a change into that of a facilitator and a friend. The role of the learner and the design of the materials need to change accordingly.

This calls for teacher and learner autonomy. Good teachers have always taken a positive critical approach to appraising and developing their work based on their experiences.

Unit 2 presents a brief review of the syllabii and course books to demonstrate the extent to which communicative practice should become a part of every classroom procedure. The importance of communication in case of language learning cannot be denied. Hedge quotes Chomsky and Hymes to elaborate the point. As the goals for ELT are to enable learners to interact confidently, the explanations of applied linguistics into the components of communicative ability become more relevant for teachers and material designers. On the basis of these, different types of activities can be designed such as information -gap activity, opinion-gap activity, reasoning-gap activity.

A communicative class-room puts the teacher in a wider range of roles beyond teaching and learning. Group works, pair work etc. require class management skills with communicative language teaching. The pressure to use authentic materials increases as contrived situations and language items do not work especially for listening and speaking skills. The tasks have to be chosen as per the interest, age and cognitive level of the learners.

Unit 3 is about 'Learner Autonomy and Learner Training'. Ideas about learner autonomy and learner training have come to the ELT profession through two major sources of influence: research studies about second language acquisition and educational thinking of the last two decades. Hedge believes that certain activities will help learners reflect on their learning. This allows the teacher to plan, proceed and shape the learning process. Activities should thus be planned in such a manner that the learners remain active throughout and are also able to check their own progress. The role of self assessment is crucial part of language learning process because it develops the capacity among the learners to carry on learning independently throughout life.

Part II of the book focuses on 'Teaching the Language System.' In this section the author covers vocabulary and grammar. Unit 4 deals with vocabulary. Recent years have seen a greater awareness by researchers, materials designers, and teachers about issues that need to be addressed with regard to vocabulary learning. In this chapter Hedge also focuses on English language and acquisition studies that tell us how vocabulary is learned along with strategies and activities for vocabulary learning, and factors affecting vocabulary acquisition. Many factors appear to play a role in vocabulary development. If learners are to be exposed to a wide range of word meanings and associations, then it will be important for them to encounter words in a variety of contexts through extensive reading and listening. One of the most severe criticisms of the traditional practice of teaching vocabulary that the author upholds is that of presenting words in isolation. However, she does advocate the use of dictionary as an important classroom and personal resource.

Unit 5 which focusses on 'Grammar' begins with a pertinent question 'how

authentically do you think grammatical structures are contextualised?' The author quotes Krashen to underscore that grammar can be acquired naturally from meaningful inputs and opportunities to interact in the classroom. She further discusses various approaches for teaching grammar along with their pros and cons. The main focus of the discussion is on different modes of presentation and the importance of practice.

Part III of the book is on 'Developing the Language skills' and they have been presented in the order of Reading, Listening, Speaking and Writing. Unit 6 is on Reading. The author begins discussing reading as an interactive process. For example, in a news item the place and name enables the reader to predict the content of the news item using his/her knowledge of the world around, and then language knowledge enables the reader to read the text. It is understood that second language readers will face difficulty but at least they begin. In this chapter, a range of reading styles and their usefulness for students have also been discussed. The author makes the point that texts should be chosen to build the learners' ability to engage in purposeful reading.

Unit 7 is about listening and Tricia Hedge puts on record that in English language teaching, listening is the most neglected/overlooked skill. It is assumed that learners will automatically pick the language through exposure not realising that exposure itself is too limited. An audiolingual approach perceives listening as the primary skill. According to this approach, presenting and practising language forms will help learn the language but the most vital element in listening is the confidence. The role of the teacher is to provide practice as much as possible in the classroom. The author has provided a number of activities that can be taken up in the class both for 'Bottom-up' and 'Top-down' processes. Further, pre-listening, while-listening and past-listening activities will be of great use to both teachers and learners.

Unit 8 is on Speaking. Developing speaking skills cannot be compared to 'conversation classes'. This notion which most people carry is not right. A holistic approach to developing speaking skills needs to be taken into consideration and this includes pronunciation, the ability to speak fluently and accurately for a variety of purposes. Various activities can be designed to develop fluency. Some examples are, role-play, describing the picture, finding the difference, discussions etc. Speaking activities are the most demanding for students and teachers, and class management is the key issue. As Hedge points out - even simple 'pair-work' needs planning, monitoring etc.

Unit 9 is on Writing. It acknowledges that there has been a departure from traditional approaches. Writing is not something that begins and ends as it is put down on the page for the first time. Writing as a process requires planning, drafting, reading, revising and editing for accuracy. The process approach to writing will develop a sense of audience in the students. The very first step is encouraging students to discuss. The teacher should help them plan in a flexible manner. Revisiting is an important step to improve upon one's

own written task. Though the product approach enables learners learn to produce features accurately, such as use of passive in description of processes, the use of relative clauses in descriptions of people, places, and systems etc. with young learners, a process approach might be most appropriate. A product approach would be more suitable for students who are good in writing but need to produce specific type of text, for example scientific report in English. Therefore, identifying the writing needs of the students is of utmost importance.

Part IV is about 'Planning and Assessing Learning' to deal with Course Design and Classroom Assessment. Unit X is on Course Design. The Role of the teacher in course design demands greater teacher autonomy in transacting the units/lessons. Mostly teachers use the Present, Produce and Practice model. Other formats, such as skill-based planning with basic 'pre-reading', while-reading, post-reading sequences can involve integrated skill-work. Topic-based materials are useful and these need to be chosen carefully. Materials should be evaluated periodically. In this regard students' feedback, teachers' opinion, observation are important. Teacher's autonomy should ensure that the texts are chosen from the learner's culture and environment and are supplemented with activities such as extensive reading, drama, role-play, communication games and debates etc. Classrooms tasks should reflect real life situations. Projects form a significant place within the process approach and experiential learning. But the author hopes that curricula should be designed on evaluative research studies. 'Classroom Assessment' talks about integrating assessment with the teaching and learning process. The involvement of the students in assessing themselves would go a long way because it would lend an opportunity to the learners to reflect upon their efforts and thus improve. Continuous and Comprehensive Assessment provides a wealth of information to the teacher to guide and help the learners.

The book presents a comprehensive overview of English Language Teaching in classroom. It raises pertinent issues about teaching language and honing the learners' skills. It provides an insight into classroom procedures for effective development of language skills. Pedagogical aspects of teaching and learning have also been kept in mind while discussing all the aspects of English Language Teaching. Another feature of the book is that it provides sample activities which teachers can choose from for their learners. Thus, there is harmony between theory and practice in the book. The book can be used as a reference book or as a source book by teachers and teacher educators as it is by no means prescriptive; it reflects on various practices and would certainly help in professional development of teachers and enable them to build a critical perspective on English Language Teaching.

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Reportage

Should We Teach Economics in Schools?*

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Why Economics is not included in school curriculum? Why Law and Human Rights are not included in school curriculum? Why Environmental Studies, as a separate branch of enquiry, apart from pure sciences like Physics, Chemistry and Biology, is not included in school curriculum? Often these questions come from the subject experts and not from those connected to school education such as parents and teachers. This could be either an effort to find new employment opportunities for their students or out of true concern that the domain knowledge in these disciplines is essential for a school-educated citizen in the modern world.

There is no second opinion as to the relevance of teaching language, literature, mathematics, sciences, history, geography and civics in schools. Doubts are often raised as to the quantum and quality of teaching and learning in these disciplines in schools. There are well founded criticisms that many school boards in India compromise quality for expanding quantity of teaching and learning. As a result, rote memory is preferred to learning to think, apply and create ideas.

With declining standards in teaching and learning of all other essential subjects, claim to include economics as a subject in school curriculum needs a broad-based discussion without extra hours of teaching and learning. Nevertheless, assuming that economics should be taught in schools, an important question that we need to answer is, 'should economics be taught as a discipline or as a description of economy without references to theories?' This article tries to find an answer to this question after a slightly jaundiced survey of contents of economics courses in schools in UK, the USA, Australia and India.

United Kingdom

Economics has been one of elective subjects for examinations at the 'school leaving level' in United Kingdom since

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early 1990. Usually the universities conducted matriculation examinations, and faculty members in economics departments were evaluating the answer scripts. One of the earliest and major reflections on teaching of economics in schools came from Lionnel Robbins in 1955 (Robbings 1955). He was quite uncomfortable with teaching of economics as a discipline in schools. After evaluating the answers scripts of school children, he found 'a greater sense of immaturity of touch, of unreality of contents of cases.' He traces a series of causes for this result. First he emphasises that economics 'is essentially a subject for grown-ups at any rate if it is taught as anything like a theoretical system.' (Ibid.,580). To learn economics as a theoretical system, one needs to have maturity to understand whole system of complex assumptions and the reality of the world, which they try to reflect. Another important issue is that there is no unified theoretical framework in economics. Every theory is based on a particular ideology, hence value-judgements are inevitable, unlike in pure sciences. As school children are not matured enough to learn these complexities, often the textbooks inculcate bad intellectual habits of side-tracking more relevant and difficult economic propositions and indulge in awkward generalisations. Hence Robbins argues '...(if) the economic instruction confined to a more or less descriptive explanation of everyday events and institutions with a certain amount of relevant history thrown in, I can believe that many of the objections I have set forth would largely cease to apply'.(Ibid.,502). Thus it is sufficient to teach economics, not as a discipline of enquiry, but more as a stylised explanation of everyday life, to make it more comprehensible and relevant to school children.

Obviously, Lionnel Robbins does not presume knowledge of economics as a pre-requisite for the study of economics at the university level. He even argues, that knowledge of language and a little of algebra and geometry than economics gained in school enhance learning of economics at the university level. He narrates that students who have not opted for Latin and Mathematics in schools enrolled for economics in the universities, whereas his peers preferred students with such specialisations. His contention was that basics of economics as a discipline could be taught in universities, whereas it would be enough to enable school students to intelligently read the newspaper.

In 1973, the Report of the Joint Committee of the Royal Economic Society (The Royal Economic society 1973), dwelt into the question of teaching of economics in schools in Britain. Firstly, without discussion, the committee decided that economics should be taught in schools. Secondly, the committee identified there objectives of teaching of economics and examination at A level, namely (i) for students who stop with school education, it should be useful in future walk of life, (ii) for students who take up other courses in the universities and end up working in economic institutions, commerce and banking sectors, it should be useful to economic reasoning and enable further study of the subject for professional advancement, and (iii) for students who

intend to proceed to its further study as an academic discipline in the universities, it should provide a solid base.

Practically while there are three sets of students with distinct objectives, it is difficult to segregate them as discussion about future course of action is not taken till the completion of the A level examination. Further, the teachers in the committee felt there was no difference in the pedagogy for these different sets of students. Hence, the committee decided to give one economics syllabus for the A level examination.

The committee opined that A level course in economics should be taught with the following objectives: (i) a capacity to understand both in theory and in application the principles upon which an economy such as that of the United Kingdom works; (ii) a general understanding of the more important economic institutions within which the national economy operates; and (iii) a capacity to handle, interpret and present the statistical evidence on which economic decisions are reached.

The committee recommended that teaching of mathematics and statistics and their application in economics are essential, but if taught in the economics course, it would make the syllabus too large to be taught and learnt in a single course. Hence, the committee recommended a separate course of 'mathematics and statistics for social sciences'. Hence the syllabus for economics course for A level would include: (i) opportunity cost, marginal principle, comparative advantage and trade, partial equilibrium of demand and supply, factor pricing, and national income; (ii) working of banks, central bank, capital and money markets, labour market, government and public utilities, market economy and imperfections, government to correct imperfections; and (iii) characteristics of economic data, measurement of change, distribution, interpret causal relations and presentation of data and statistics. Since 1973, the basic framework of economics syllabus for A level examination has not substantially changed.

The United States of America

In the USA, economics has been taught in schools since early 1900. The prime objective of teaching economics in school in the USA has been to impart economic literacy, which refers to ability to apply basic economic concepts years later in situations relevant to their lives and different from those encountered in the classroom.

In 1950, the American Economic Association's report on introductory economics courses recommended that: (a) economics course content should be reduced; (b) economics should be taught as a part of liberal art; (c) it should train students to use analytical tools to deal with current economics standards; (d) it should train students to follow current news to enhance their interest in the applicability of economics, and the quality of class room teaching should improve (Hansen and et. al. 2001).

In 1980s, the National Council for Economic Education (NCEE) developed 20 standards that provide benchmarks for economic learning from grade IV to grade XII in the US schools. These benchmarks reflect the graded understanding market economy in the USA. Every state in the

USA has developed the economics syllabi for the grades IV to XII, based on NCEE standards. The syllabi for high school economies, include only those concepts relevant to understand the market economy and the minimum role that the government plays in facilitating such an economy. Thus in both UK and the USA the high school economics courses train the students in understanding the system of their respective economics and gives little exposure to the theoretical frameworks in economics. This approach is similar to what Lionnel Robbins suggested in 1955 with regard to teaching of economics in schools.

Australia

The schools in Australia started teaching economics since the second half of 1900. The rationale for teaching economics in Australian schools emanates from how economics as a discipline tries to enhance exploring and understanding the cobweb of relationships between economic institutions and problem. 'Economics investigates the choices which all people, groups and societies face as they confront the ongoing problem of satisfying their unlimited wants with limited resources. Economics aims to analyse and understand the allocation, utilisation and distribution of science resources that determine our wealth and well-being. Economics develops the knowledge, reasoning and interpretation skills that form an important component of understanding personal, business and government behaviour at the local, national and global levels'.

The economics syllabi from level III to level VIII have been developed and are being taught with the following expected learning outcomes: (i) able to collect, arrange and interpret economic data; (ii) able to understand and analyse the functioning of national and international economies and the forces at play; and (iii) able to understand the need for public policy to manage the economy and the impact of such public policies.

Thus, the content of economics courses in Australian schools is no different from those being taught in the USA and the UK. The countries with predominantly developed market economies find it essential to train the students in uncritical understanding of market system.

The rationale for teaching economics from Class VI in Indian schools emanates from the National Curriculum Framework 2005 (NCF 2005). The NCF 2005 states, "Social Science content needs to focus on conceptual understanding and should equip children with the ability to think independently and reflect critically on social issues." (Government of India 2005).

The NCF 2005 further states that the curriculum practices should be based on the values enshrined in the Constitution, such as social justice and secularism in a pluralistic society. As such there is a need to impart critical thinking skills with a multi-paradigm approach to teaching of economics in schools. Understanding the multi-paradigm approach to economic issues require a fairly higher level of maturity to understand abstract theoretical constructs as well as advanced quantitative techniques to analyse economic data. As Lionnel Robbins had said, this would be too difficult to teach

to school children even at the higher secondary level.

The economics textbooks for Classes VI to X by the National Council for Educational Research and Training, New Delhi, give stylised facts and analysis of Indian economy. Thus the actual content of economic courses in Indian high schools also, like those in the USA, UK and Australia, give an exposition to the national economy. But, unlike in those economies, Indian economy being a mixed one, the role of market is often changing in the different sectors and regions in the economy. There is a dilemma as to the relative importance to be given to market and the state as economic agents, and giving a critical exposition to these economic issues to school children is rather difficult. Hence, we find a stylised exposition to Indian economy is rather incomplete in the economics syllabi for Classes VI to X.

Even at the higher secondary level, the syllabus is not designed to provide gradual improvement in learning economics as a discipline when the students move from Classes XI to XII. The syllabus for XI standard is totally disconnected with the syllabus for Class XII. Generally in Class XI, facts and issues in Indian Economy are taught and in Class XII standard principles of economics course are given with selected topics from microeconomics, macroeconomics, monetary theory and public finance. Often both the school authorities and students find it convenient to start the principles course after a cursory look at the Indian Economy text in Class XI itself. But is a good mixture of concepts and economic facts and issues are given can be designed and graded in such a way that there is a logical sequencing of topics as the students move from Classes XI to XII.

The Answer

The analysis of contents of economics courses in schools in the UK, the USA, Australia and India leaves a sequence of questions for the educationists to seek answers, if any meaningful economics teaching has to take place in schools.

Economic theories evolve out of reactions to contemporary issues and economic theories have strong ideological bases. Thus, when no single theory has universal acceptance, choosing a particular conceptual framework will not impart critical thinking, which is essential to understand the social issues. In this context, can we teach economic facts and institutions without referring to any conceptual framework? If we have to teach the Indian economy as a set of facts and institutions, we will be giving an uncritical account of Indian economy, without raising important questions, say, about inequality and regional imbalance. Is this not contrary to the NCF 2005 objective of strengthening a system of education in a pluralistic society? The analysis of the economics courses in schools in the four countries points out that it is unwise to teach economics as a discipline to high school children, whereas we need to provide a discipline-based approach, which is, teaching economics as a discipline at the higher secondary level. It will be quite challenging to teach the facts and issues in Indian economy to high school

children as there is a strong interplay of market forces and state control in India. Drawing lessons from teaching of history as a social studies paper would be quite instructive for designing economics courses for high schools. We have just started experimenting with teaching of economics in high schools; there should be documentation of state-level experiments in designing syllabi, creating textbooks, teaching methods and evaluation.

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