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Literacy and Participatory Human Development
An Illustrative Indian Exercise

Rabindranath Mukhopadhyay*

Abstract

The paper makes extensions of Basu and Foster (1998) measure of 'effective literacy' to examine how different forms of externality may affect the outcomes of primary education. Two important externality based measures of educational achievement have been suggested: (i) functioning of the village administration might be utilized as a source of externality to augment the rural literacy base; and (ii) the base of literate women might be utilized as a source of external influence for betterment of primary education, particularly of girls, of both (a) current generation and (b) future generation. Finally, the usefulness of these measures for developing countries has been established with the help of secondary Indian data. The policy implications of these exercises indicate that the malfunctioning of the market for primary education may be effectively tackled through correcting other markets or institutions. The measure of educational achievements, based on the externality, demonstrates the nature of market imperfections and the necessary strategy to combat with these externalities.

Introduction

The rethinking on economic development rather than on economic growth as a panacea for inequality, poverty and low productivity of the less developed countries has resulted in attaching great importance to education and health. Dreze and Sen (2002) deem education and health as important 'enabling factors' to enhance development. The need thus arises to quantify the impact of 'enabling factors' on economic development. The UNDP (1990) has very pragmatically incorporated literacy and years of schooling as one of the major components of the Human Development Index. Literacy is most commonly defined as the proportion of persons that are literate in a given set of population. However, the conventional measure of literacy is deficient in conveying, how far the population considered literate is able to: (i) convert the knowledge gained, into action; and (ii) create a well-informed public opinion for the need of the availability of quality basic education on a sustainable basis. India, as a representative example of developing

* Lecturer, Deparment of Economics, Calcutta University, 56A, Barrackpore Trunk Road, Calcutta-700050.
E-mail: rmmeco@caluniv.ac.in

countries, in spite of achieving significant progress in the field of primary education, is still deficient in meeting the goal of education for all, particularly due to the lack of pressing popular demand. It is, therefore, not only important to understand how many are literate but how many literate are participating in enhancing the literacy programme, and thus the quality of life. Since the concept of development encompasses a participatory approach, the measure of literacy (a component of development) should be capable of reflecting the participatory or distributive implications of education.

Basu and Foster (1998) constructed an important measure of literacy namely the 'effective literacy', which incorporates the distributional implications of literacy within the household (i.e. the literate member [particularly female one] applies knowledge in enhancing the efficiency of the household work; the efficiency thus generated is enjoyed by the illiterate members of the household also). Basu and Foster's (1998) measure is advancement over the conventional per capita measure of literacy because it is able to quantify the participatory social element associated with education.

Basu and Foster (1998) emphasized that the presence of a literate person in a household creates some positive impact on the illiterate persons of the concerned household. This "external effect aspect" of literacy is not considered in the conventional (census) measure of literacy. A literate member of the household has access to information and is able to disseminate and collate the same in a better way than an illiterate member. The illiterate members of the household enjoy the benefits of the knowledge of the literate person in various applications.

Concepts

'Effective literacy', following Basu and Foster (1998), is defined in the following way: an illiterate person could belong to a household which has either (i) one or more literate members or (ii) no literate member. The illiterate person in case (i) is described as proximate illiterate, due to his/her proximity to literacy owing to the presence of a literate person within the household, and in case (ii) the illiterate is an isolated illiterate. This kind of classification of the illiterates is meaningful because it is possible for a proximate illiterate to gather some knowledge from the literate member(s) within the household, while the same is not possible for an isolated illiterate. A proximate illiterate is evaluated as α times the literate person in the household where $0< \alpha <1$, and the isolated illiterate is counted as 'zero literate'. In terms of literacy equivalence, the proximate illiterate is placed between complete literacy and complete illiteracy. The concept of 'literacy equivalence' of proximate illiterates generates the new measure of effective literacy, different from the census measure. 'Effective literacy' rate is the usual or census literacy rate plus 'α' times the proportion of proximate illiterates in the entire population. The effective literacy rate has been characterized following an axiomatic approach. The values of α varying across regions need to be evaluated through empirical exercises (ibid. 1998).

The measure of 'effective literacy' has further been modified (ibid. 1998) to include the dimension of gender. It states that female literacy has superiority over male literacy in

terms of enhancing the education of children and more particularly the well-being of the household. The gender sensitive measurement, following Basu and Foster (1998), is defined as: let there be *m* 'proximate' illiterates from households with at least one male literate and no female literate member and likewise, let there be *f* 'proximate' illiterates from the households with at least one female literate and no male literate. In terms of literacy equivalence, *m* proximate illiterates count for α_m of the male literate population and *f* proximate illiterates get counted as α_f of the female literate persons, where $0 \leq \alpha_m < \alpha_f < 1$. This restriction corroborates the idea that female literate are superior as far as the dissemination of information is concerned, compared to the male literate. The gender adjusted ' effective literacy' measure is the census literacy rate plus α_m times the proportion (with respect to the total population) of proximate illiterates living in the households of only male literate plus α_f times the proportion (with respect to total population) of proximate illiterates living in the households with only female literate. (ibid 1998).

The essential idea underlying the measure of 'effective literacy rate' is that a literate person generates positive *externality* on all the illiterate members of the household, where he/she belongs. For example, the literate member can read a newspaper to the illiterates and thereby generate awareness about the circumstances around them. Externality is said to have occurred (as per conventional economics) when prices are inadequate in capturing the behaviour of economic agents. Thus, externality is the outcome of market failure. In the preceding example, there is no service charge accorded to the literate person for his ability to read the newspaper to the illiterate ones. As per conventional economics, external economy (i.e. positive externality) occurs when an agent enjoys the benefit or utility due to the activity of another agent but is not required to pay for it. Similarly, external diseconomy (i.e., negative externality) occurs when an agent suffers a loss or disutility due to the activity of another agent and is not compensated for it. Thus, externality is the manifestation of social benefit (cost) exceeding private benefit (cost). Hence the pricing structure of the market charged on private agents is largely incompetent. The market for primary education manifests broad examples of externality, particularly in less developed countries, where there are still strong social ties in rural areas. The benefits of positive externality gradually get lowered as one moves towards social units where people are weakly linked and thus a fee can be charged by the literate member on any service he/she renders on the illiterate member – not necessarily within the household but also in the inter-household arena.

There is a necessity to identify the varying forms of externality that might occur in the primary education market, so that the state could internalize them for efficient outcomes in terms of Universalization of primary education. School outcomes in a developing country like India, particularly in rural India, are influenced (Dreze et al 1999) by:

a) Effectiveness of school teaching, teacher regularity and the availability of midday meals.
b) Village development and administration.

c) Economic opportunities.
d) Parental education and motivation to send the child to school.
e) The existence of high dependence ratios in the household and hence the need of a child to work as child labour.

Except the first variable, the other variables do not exist in the primary education market. However, these variables, owing to market imperfections, are influencing the school outcomes. Thus low (high) educational outcomes do not always imply that the school is functioning inefficiently (efficiently). The source may lie in some other market. The conventional per capita measure does not incorporate the dynamics of learning. The conventional (census) measure has an individualistic orientation or bias and does not take into account the various 'social' (beyond private) ramifications of education, which alternatively can be called the 'externalities' of education. Thus there appears a necessity to reformulate the conventional measure of literacy so that it could accommodate the effects of 'external' factors into educational outcomes. Such a method of formulation will identify the role of factors (deficient or accommodating), if any, that are crucial in reshaping literacy. Unless the strengths of non-school factors are established, it would be difficult to suggest any policy to 'internalize' the varying dimensions of externalities in the education market that would be decisive in universalizing primary education in many developing countries like India.

Role of Village Administration: The present paper tries to explore how the efficacy of village administration can enhance educational outcome. Village administration[1] is a powerful instrument to tackle the multifarious problems relating to school education and outcomes. Poor educational outcomes and educational deprivation can be on account of lack of accessibility, affordability and the poor quality of school services (Dreze and Sen, 2002). The village administration through its efficiency and the popular demand of the educated representatives can construct schools within the habitations (thereby making schools easily accessible). Schools can be made affordable, if the administration ensures that the accessories required for schooling (e.g., books, stationery) are made available in regular intervals. Further, the functioning of the local level of governance (e.g., the *panchayati raj* institution in India) can stress the importance of compulsory schooling and if willing, can successfully change hours of schooling in case of clash with working hours of child labour. Through the system of '*panchayati raj*' institution (the decentralized method of local governance in India), the accountability of the school system can be enhanced. This will definitely improve the quality of school functioning and hence many children are likely to enroll. Further, this will also augment educational base of the already enrolled children (ibid., 2002).

According to Dreze and Sen (2002), close monitoring through the system of local governance (*panchayati raj* experiment) initiated in the late 1980s, considerably reduced the absenteeism and the irregularity among the teachers in Karnataka (an Indian state). Mallick (1996) reiterated the same observation: in some *panchayats* (the jurisdiction of decentralized system of governance) of Rajasthan (another Indian state), with the smooth

functioning of local democracy, indiscipline among teachers declined and their accountability also increased. Thus effective functioning of the rural local governance improves the quality of learning and this will in turn improve the quality of primary school graduates. The process of human development or the level of well-being will accordingly be enhanced. The per capita measure of literacy does not incorporate the externality emanating from the efficacy of village administration. The market prices of primary school graduates do not measure or account for the beneficial implications of the existence of efficient *panchayati raj* institutions. Thus there is a need to incorporate the positive externality of the *panchayati raj* functioning (i.e., to judge the element of enhancing ability of the *panchayati raj* institutions) in the measure of educational outcomes.

The efficient functioning of the *panchayati raj* institution can make the illiterate members of the population aware about the gains of education and thus motivate them to send their children to school. So the functioning of the *panchayati raj* system can help to make the 'distant dream' of education for all a reality. Village level administration has organized in many parts of India, non-formal schooling particularly for the adult illiterates, thereby expanding the literacy base of the population. The conventional measure does not incorporate the various quantities enhancing impact of village administration in the field of primary education. The present exercise tries to incorporate the positive externality enhancing parameter of the *panchayati raj* institution in the measure of 'effective' literacy. Here the *panchayati raj* institution is the 'externality generating factor for the effective literacy measure.

Role of Educated Women: The importance of female education and the related externality emanating from it has been amply discussed in the literature, [Bowman (1992) and Dreze and Sen (2002), to name a few]. Bowman (1992) opines that apart from human capital enriching economic growth and making the individuals better producers, other contributions do follow from it. These other aspects are defined as 'externalities in human capital'. Bowman (1992) evinces in particular some external benefits of education among women. Education enables a woman to: a) acquire the ability to manage her own household in a better way within the given budget constraint; b) ensure that the family's nutritional standard and hygiene are well maintained; c) regulate the fertility behaviour in a planned way; and d) contribute to the quality of learning in succeeding generations (Schultz, 1995, p. 546). Alternatively, Dreze and Sen (2002) report '... there is evidence that better education (particularly female education) contributes to the reduction of gender based inequalities.'

According to Basu and Foster (1998) and Basu et al (2000), female education is superior to male education as far as the positive externality associated with education is concerned. In contrast to these studies, the proposed gender sensitive effective education measure does not consider the importance of literate males. This is owing to the fact that male literate, contrary to female literate participates in the labour market more frequently. Thus, the externality relating to male literate is internalized. The market for labour accords pricing to the male education. Thus inclusion of male education in the measure of

externality could generate the problem of double accounting for the same set of agents, i.e., the male literate. Another departure from these studies is that the present paper does not restrict the utilization of the externality effects of female education to the contemporary generation only but extends the same also to the intergenerational level. An exemplary manifestation of the functioning of this externality is reflected in the performance of the *Sahayikas*[2]. The *Sahayikas* in the Child Education Programme [*Shishu Siksha Karmasuchi*[3] of West Bengal (an Indian state)] are the only female teachers who are doing a commendable service – not only in terms of teaching but making the process of teaching-learning a joyful one. These female teachers get a paltry salary of Rs. 1000 per month. Thus the services of these female teachers are severely under-priced. The salary of primary school teachers is much higher in West Bengal; yet the *Sahayikas* have greater appeal to the students [Pratichi Education Report, 2002]. The services rendered by the *Sahayikas* to another set of economic agents (i.e., the children) are a case of positive externality flowing from the female literate. This has been possible due to their independent decision to teach in the Child Education Programme.

The social returns to primary education and literacy are higher than private returns to individuals, especially for girls. This aspect establishes the need for construction of an index based achievement rate for girls, since there is flow of externality from the female literate. It reiterates the fact that the utility or scope of such measures increases in case of market failures. Moreover, Dreze and Kingdon (1999) opine that there is a strong inter-generational effect of maternal education on schooling of girls. Katis et al (1999) observe that education of female is an effective policy instrument for breaking the cycle of low inter-generational accumulation of human capital. The present exercise thus attempts to quantify the externality, relating to inter-generational gender based primary education.

This paper attempts to incorporate the contribution of two non-school factors (positive externalities) to reformulate the traditional measure of literacy or education. It borrows the concept of the measurement of literacy from Basu and Foster (1998) to reformulate 'externality' based measures of education. It also provides empirical support to these new measures. However, unlike Basu and Foster (1998), in the present case, externality-augmenting parameters are not restricted between 0 and 1. The paper simultaneously demonstrates utility of the proposed 'externality' based measure, as far as the enhancement of the literacy base of the future generation is concerned. The empirical validity of the proposed measure, as far as distributive implications of the factor of externality is concerned, has also been demonstrated.

As far as the utility of these proposed measures for the purpose of policy formulation is concerned, there will be a variation across regions, depending on the variation of purpose for which the policy is formulated. For example, if the goal is to eradicate female illiteracy at the grassroots, then the gender sensitive measure of educational achievement is the appropriate measure. Moreover, the sources of malfunctioning of primary education may not always get confined to the market for primary education alone. Thus the nature of the inter-linkage between market for primary education and other different markets should be properly examined. Positive externality from other institutions could be utilized

to improve the performance of primary education. For example, the improved functioning of the *panchayats* could improve the school infrastructure and schools might be accessible and enjoyable to all the children in the school going age group. The plan of exposition of the present paper is described below:

Next section is devoted to the construction of three different forms of measures of effective literacy or effective primary schooling, incorporating externalities from different sources. The first sub-section has demonstrated the construction of measure of effective literacy incorporating the role of village administration as a source of externality. In the next sub-section an attempt has been made to construct an effective measure of primary education at the contemporaneous level, encompassing the importance of positive externality from the educated or literate women. How the role of educated women could be utilized as a source of externality for the construction of an effective measure of primary schooling for girls at an inter-generational level is reported in the last sub-section. The usefulness of the construction of these three measures, utilizing secondary Indian data sets, has been established in the following section. Indian data have been used simply for the purpose of convenience. Possibly there is no controversy in accepting India as a true representative of the developing countries. In the concluding section, the paper explains the fact that the incorporation of these 'social dimensions' of education as sources of externality greatly improves the measurement of literacy or primary schooling.

Approach Developed

This section has demonstrated how services or utilities, derived from institutions, exogenous to the field of primary education, could be fruitfully utilized to educate the children of both the present as also the forthcoming generations. Village administration and educated women have been identified as two such important external sources. Suitable formulations, encompassing these sources, for betterment (in terms of both quality and quantity) of primary education, have been reported in the present section.

Village Administration and Externalities on Literacy

The presence of *panchayati raj* institution, as narrated already, contributes positively to primary education by (1) enhancing the quality of learning; and (2) generating awareness among the illiterates about the gains of learning so that they are motivated to learn or at least to send their illiterate children to school. Such categories of externality from the functioning of the *panchayati raj* institution are incorporated to enhance literacy in the following way:

From a given population of P, for any unit of observation (e.g., nation or state or district etc.) in any given year, let L and IL stand for conventional literacy and illiteracy rates, respectively. Then the effective literacy rate L^* for the concerned year (after incorporation of the externality) emanating from the functioning of the *panchayati raj* institution can be expressed as:

$$L^* = [L^a + (IL)^b] * 1/e \quad \ldots\ldots\ldots\ldots \quad (1)$$

where the coefficients a and b are such that a >0, b>0 and a > b; and e stands for the number of villages per *gram panchayat*. Lower the value of e, i.e., the smaller the number of villages looked after by a *gram panchayat*, the higher would be its efficacy of functioning leading to a higher positive externality. Fewer villages under the constituency of a *gram panchayat* imply that the institution of *panchayati raj* is able to monitor more closely the quality of learning at schools.

Equation 1 demonstrates that the literate, owing to the presence of the *panchayati raj* institution, have enjoyed improved quality in the process of learning; thus their literacy base is functionally enriched. Again the illiterates, due to the generation of awareness by the *panchayati raj* institution, have insights to the importance of knowledge. Thus 'a' and 'b' are quality-augmenting coefficients in literacy related information and knowledge, generated by the efficacy of the *panchayat raj* institution. However, the ability of the literate to collate information is always higher than that of the illiterate. Therefore, the efficacy of the externality would be more pronounced on the literate than on the illiterates. Hence, 'a' is greater than 'b' in Equation 1. Variations in L^* across panchayats will be influenced by (i) variations in the variable e; and (ii) variations in the values of the coefficients 'a' and 'b'. But the latter itself will be influenced by the former. Thus no explicit procedure could be suggested for estimating the coefficients 'a' and 'b'. This highlights the importance of the *panchayati raj* institution in augmenting the quality of literacy. Further, the Equation 1 endorses that the institution of *panchayati raj* enhances the level of human well-being through betterment of education in particular. However, the enhancement of well-being enriched through education will be higher for the literate compared to illiterates. For example, the literate have access to quality education and their progeny can use the benefits, whereas the illiterates can send their progeny to schools. The illiterates learn about the benefits of education after participation in parent-teacher association (all due to the efficacy of *panchayati raj*) but they themselves cannot understand how their children are progressing in schools.

Gender Based Externality at the Contemporaneous Level

The present sub-section proposes a measure of educational attainment, which justifies the influence of female literate on the current population (particularly the female population), in reshaping their ability to enhance their educational standards. Since the inter-household links in rural areas, particularly for developing countries like India are strong, the positive spillover from educated women is enjoyed by the illiterate girls. Let E_n represent the enrollment rate for girls belonging to the age group of 6-10 years, for any unit of observation (e.g., nation, state, district etc.) in any n-th year. For the same population, let D_n represent the dropout rate of girls for the n-th year. For any such unit of observation, effective enrollment rate for girls, denoted by E_n^*, for the n-th year is defined as:

$$E_n^* = (E_n \cdot F_n) / D_n \quad \text{.....(2)}$$

where F_n is the female literacy rate in the n-th for the same unit of observation.

Here F_n represents the factor of externality. F_n is an initial endowment that helps in enhancing the enrollment of girls in the age group of 6-10 years in the n-th year. F_n also discourages incidence of dropout of students of all age groups, particularly of girl students in the age group of 6-10 years.

Equation 2 demonstrates that enrollment in any particular year is depreciated by the number of dropouts; however, the existence of female literate in a particular region, generates a beneficiary forward linkage thereby trying to (i) enhance the number of enrolled and also (ii) reduce the number of dropouts. Hence effective enrollment originates from the presence of female literate in the society. The difference in the number of literate women between two units of observation is likely to have impact on the difference either (i) in the enrollment rates or (ii) in the dropout rates or both, between the two said units. Dealing with these changes simultaneously, under the influence of literate local women, becomes convenient and compact when represented by effective enrollment [i.e., Equation 2]. The presence of female literate in the population creates economies of scale at the contemporaneous level, which the primary education market fails to identify. Thus the Equation 2 is a clear demonstration of how female education generates positive external effects on the literacy of contemporaneous girl child population.

Both enhancement in enrollment and reduction in dropout have positive impact on literacy. However, for the literate women, it is relatively easier to augment enrollment rather than to regulate dropout. Various factors might be responsible, separately as also simultaneously, for the incidence of dropout. Further, severity of these factors might vary from region to region. For example, when children refuse to go to schools, either because they are not interested in studies or schools could not sufficiently attract the children, the source of dropout is from within the primary education market. On the other hand, when children are forced to discontinue schooling due to poverty, the source is exogenous to primary education market. The first variety of causality may be identified as 'school related factors' i.e., malfunctioning of the primary education market itself. The other source of dropout may be called as 'non-school related factors' i.e., beyond the control of primary school market. This nature of identity differential within the vector of factors, responsible for incidence of dropout, makes the effort from literate women towards regulating the incidence of dropout partially effective/ineffective. Further, regional difference is likely to occur in this respect. Thus, externality effect on literacy, originating from literate women, in general, is likely to be more effective through augmentation of enrollment instead of regulation of dropout.

Gender Based Externality at the Inter-generational Level

How strongly the positive externality generated from the educated/ literate women could be utilized for the benefit of school going girls, not only for the present period but also for the future generations, is the focal theme of demonstration for the present sub-section.

Extending Basu and Foster (1998) gender sensitive measure of effective literacy, the present exercise wants to establish an inter-generational gender based measure of

externality in primary education. Let P_n and NP_n stand for the rates of completion and non-completion, respectively, of primary education for girls in the age group of 10-14 years in any n-th year for any unit of observation, F_{n-10} be the female literacy rate for the said unit of observation in the previous decade, i.e., (n–10)-th year. Then the gender adjusted rate of completion of primary education of the girls in the age group 10-14 years (alternatively referred to as the effective rate of completion of primary education), P_n^* for the n-th year may be expressed as:

$$P_n^* = P_n + (F_{n-10}) * NP_n \quad \text{.....(3)}$$

where F_{n-10} represents the factor of externality. P_n^* is capable of demonstrating that an adult literate female's decisions have positive external effects within and beyond the household, particularly at an inter-generational level. The flow of externality from the source of literate ladies of the previous decade i.e., F_{n-10}, in the form of care they take to make the illiterate girls, i.e., NP_n, literate, has been incorporated in the multiplicative form in Equation 3. The higher the number of literate women of the previous decade (F_{n-10}), the higher is the number of illiterate girls (NP_n) of the current generation taken care of, leading to higher rate of completion of primary education by the girls of present generation and opposite otherwise. The reasons why such a measure does not incorporate the externality effects of the male literate, has been earlier discussed.

Empirical Support

The section just concluded has demonstrated the logical construction of three measures of literacy and primary schooling incorporating effects from sources beyond the formal market of primary education. How do these measures perform in reality is discussed in the current section.

Village Administration and Externalities on Literacy

The usefulness of the positive externality represented by 1/e in Equation 1, will be adequately explained from the numerical illustration given in the Table 1. Table 1 represents the values along with the respective ranks of (i) conventional literacy rates (L); (ii) externality factor 1/e and (iii) effective literacy rates (L^*), for fifteen selected major States of India for the year 1991. For illustrative purpose, 'a' is equalized to 2 and 'b' is set equal to unity[4] .By construction of Equation 1, for any unit of observation (here the states), the effective literacy rates will always be higher than the conventional literacy rates. So the comparison between these two variables will be meaningful only in terms of the ranks.

The utility of the numerical exercise lies in its ability to convey the importance of the factor of externality in altering the rank order of the states, when examined in terms of the effective literacy rate. In spite of effective literacy rate being influenced both by conventional literacy and illiteracy rates; it is observed that the factor of externality is indeed important in altering the ranking of the states, when one moves from conventional literacy rate to effective literacy rate.

States with high performing factor of externality [i.e., higher 1/e as per Equation 1] convey higher positive externality, thereby resulting in higher effective literacy rate (column: 4). For example, the three states enjoying the first, second and third place when evaluated in terms of the factor of externality, are Punjab, Haryana and Tamil Nadu respectively. These three states respectively experience the position of second, fourth and third positions when assessed in terms of the effective literacy rate. However as per conventional literacy rate (column 2), these three states occupy sixth, eighth, and fourth position respectively. So it is observed that the overwhelming influence of the factor of externality has altered the rank order of the states.

TABLE 1
Literacy Rates and the Factor of Externality by Selected Major States Rural India: 1991

States	*Conventional literacy rate (l)*	*Factor of externality (1/e)*	*Effective literacy rate (l^*)*
Andhra Pradesh	35.7 (13)	0.66 (6)	916.62 (7)
Bihar	33.8 (14)	0.15 (11)	181.29 (14)
Gujarat	53.1 (5)	0.71 (4)	2035.22 (5)
Haryana	49.9 (8)	0.81 (2)	2057.51 (4)
Himachal Pradesh	61.9 (2)	0.13 (12)	503.06 (9)
Karnataka	47.7 (9)	0.09 (13)	209.48 (11)
Kerala	88.9 (1)	0.68 (5)	5384.17 (1)
Madhya Pradesh	35.9 (12)	0.24 (9)	324.69 (10)
Maharashtra	55.5 (3)	0.65 (7)	2031.08 (6)
Orissa	45.5 (10)	0.08 (14)	169.98 (15)
Punjab	52.8 (6)	0.86 (1)	2438.13 (2)
Rajasthan	30.4 (15)	0.19 (10)	188.81 (13)
Tamil Nadu	54.6 (4)	0.80 (3)	2421.24 (3)
Uttar Pradesh	36.7 (11)	0.65 (7)	883.60 (8)
West Bengal	50.5 (7)	0.08 (14)	207.98 (12)

Note: Figures in the parenthesis denote the ranks of the states concerned for the said variable. In every column, higher value denotes higher ranking.

Sources: 1) Rural Literacy Rates by States: Sharma, O.P. (1993), A Census Publication;
2) Factor of externality (1/e) in column (3): Jain, S.P. (1993).

The performance of Kerala is an exception. Kerala has a high value of conventional literacy [88.9%; column 2]; therefore, its conventional illiteracy base is narrow. In spite of the rank order of the factor of externality being 5, it has retained its first position (column 4). Such behaviour of the state of Kerala implies that the illustrative efficacy of Equation 1 increases with the increase in the level of illiteracy of the unit of observation concerned (in this case the states of India). Kerala's level of well-being (owing to historical reasons) is above that of many other Indian states. Thus the influence of externality factors is negligible. The effective literacy definition is well suited for the

poor (in terms of conventional literacy) performing units of observation. The units of observation, which have high literacy, created historically through external economies of scale, in particular, thus do not respond to this factor of externality. In states where basic education has advanced owing to the external economics, it implies that the existence of market imperfections is already taken care of; the working of Equation 1 becomes thus ineffective. That the state of Gujarat fails to reap the benefit of reasonably high value of externality and in case of Maharashtra, in spite of the moderate value of factor of externality, there is deterioration in the literacy ranking – are the only two cases signifying the existence of local peculiarities in their behaviour.

To test the efficacy of the factor of externality [1/e], in terms of improving future educational attainment, a rank correlation is attempted between the dropout rate[5] of students from primary schools and the effective literacy rate. Earlier it has been reported that the *panchayati raj* institution plays a decisive role in encouraging school participation – thus they are the effective instruments in reducing future dropouts. Since the effective literacy rate is claimed to be a better measure than per capita literacy rate as far as the distributional implications of education is concerned, the former would be more effective in predicting future distributional pattern of education. Thus to examine how far the incidence of dropout is influenced coefficients are found to be +0.53 when the literacy rate is effective and +0.44 in the other case. Therefore effective literacy rate, in comparison to conventional one, influences future educational performance more fruitfully.

Primary Education and Gender Based Externality

The illustrative example, using Indian data, demonstrating the usefulness of the measure (i.e., Equation 2) of effective enrolment rate (E_n) of the female population in the age group of 6-10 years has been reported in the Table 3. It represents the values of (i) conventional enrollment rate (E_n), (ii) the dropout rate (D_n), (iii) the factor of externality (F_n), and (iv) the effective enrollment rate (E_n^*) corresponding to Equation 2 for the selected fifteen major states of India for the year 1986. For each of these four variables, absolute values as also the ranks have been made available for the concerned states. It is required to be mentioned that across the states, E_n^* is comparable to E_n only in ranks and not in absolute values. This is simply due to the construction of Equation 2. By rank comparison across the states, between E_n and E_n^*, three sets of classification of the states are revealed:

a) *Improvement in rank*: there are seven such states: Gujarat, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Orissa, and Uttar Pradesh.
b) *No change in rank*: there are two such states Punjab and Rajasthan.
c) *Deterioration in rank*: there are six such states: Andhra Pradesh, Bihar, Karnataka, Maharashtra, Tamil Nadu, and West Bengal.

TABLE 2
Literacy Rates (1991) and Dropout Rates (1999) in Primary Schools; by Selected Major States; Rural India

States	*Conventional Literacy Rate (L)*	*Effective Literacy Rate (L^*)*	*Dropout of Students*
Andhra Pradesh	35.7 (13)	883.60 (7)	40.28 (11)
Bihar	33.8 (14)	181.29 (14)	57.27 (15)
Gujarat	53.1 (5)	2035.22 (5)	29.49 (7)
Haryana	49.9 (8)	2057.51 (4)	14.57 (2)
Himachal Pradesh	61.9 (2)	503.06 (9)	35.35 (8)
Karnataka	47.7 (9)	209.48 (11)	28.87 (6)
Kerala	88.9 (1)	5384.17 (1)	- 7.05 (1)
Madhya Pradesh	35.9 (12)	324.69 (10)	19.03 (3)
Maharashtra	55.5 (3)	2031.08 (6)	20.29 (4)
Orissa	45.5 (10)	169.98 (15)	36.12 (9)
Punjab	52.8 (6)	2438.13 (2)	22.49 (5)
Rajasthan	30.4 (15)	188.81 (13)	52.53 (12)
Tamil Nadu	54.6 (4)	2421.24 (3)	41.10 (10)
Uttar Pradesh	36.7 (11)	916.62 (8)	56.64 (14)
West Bengal	50.5 (7)	207.98 (12)	54.07 (13)

Notes: Figures in the parenthesis denote the ranks of the states concerned for the said variables. In columns (2) and (3) higher values, indicate higher rank, but opposite in column (4). In case of literacy, higher the rate better is the performance, whereas in case of dropout, lower the rate, improved is the performance.

Source: Columns 2 and 3; computed from Table 1, p. 8, col. 4, from Annual Reports, MHRD 1998 -99.

From the illustration it is clear that rank ordering of the states gets changed between conventional and effective enrollment rates simply under the influence of 'factor of externality' (i.e., incidence of literate women in the concerned region). For example, deterioration in the rank ordering of the states is simply due to poor influence of factor of externality. However, in case of West Bengal, the decline in rank order is the joint effect of high incidence of dropout and poor impact of externality. The adverse movement in the rank order of Tamil Nadu indicates that moderate effect of externality was not sufficient to reduce the incidence of dropout beyond a moderate level. However, Haryana and Madhya Pradesh have witnessed rank improvement, though marginal, in spite of having low influence of factor of externality. This implies that factor of externality (i.e., literate women) has been found to be more effective, in these two states, in reducing the incidence of dropout leading to improvement in literacy (effective).

Two varieties of cases are of general concern: (i) improvement in enrollment status in spite of low female literacy; and (ii) deterioration in enrollment status in spite of moderate to high female literacy (the externality factor). Both (i) and (ii) get explained simultaneously, if externality effect is routed through control over incidence of dropout.

The former case represents successful control of dropouts by female literate leading to improvement in enrollment. This might have been possible, incidence of dropout being the fallout of school factor. Such effective regulation of dropouts might not have been possible by the female literate in the latter case implying non-school factor causality responsible for incidence of dropouts. This causality decomposition of the incidence of dropout has been discussed earlier. In the present illustration, Haryana and M.P. are two examples of the first variety while Tamil Nadu and Maharashtra belong to the second variety.

TABLE 3

Girl's Enrollment Rates and the Factor of Externality; by Selected Major States; Rural India: 1986

States	*Conventional Enrollment rate* (e_n)	*Dropout Rate* (d_n)	*Factor of Externality* (f_n)	*Effective Enrollment Rate* (e_n^*)
Andhra Pradesh	61.73 (10)	66.52 (12)	16.77 (12)	15.56 (12)
Bihar	49.50 (13)	67.00 (13)	12.39 (13)	9.15 (14)
Gujarat	67.87 (08)	56.3 (10)	28.80 (06)	34.7 (07)
Haryana	69.81 (07)	31.18 (02)	18.78 (10)	42.04 (06)
Himachal Pradesh	72.88 (05)	33.8 (03)	35.29 (02)	76.09 (03)
Karnataka	69.83 (06)	60.53 (11)	23.84 (08)	27.50 (08)
Kerala	85.70 (03)	3.24 (01)	74.17 (01)	1961.84 (01)
Madhya Pradesh	60.86 (11)	39.31 (06)	17.29 (11)	26.76 (09)
Maharashtra	77.63 (04)	52.68 (08)	29.49 (05)	43.45 (05)
Orissa	60.31 (12)	55.9 (09)	21.99 (09)	23.72 (11)
Punjab	92.43 (02)	36.73 (05)	32.73 (03)	82.36 (02)
Rajasthan	35.16 (15)	75.22 (15)	6.48 (15)	3.16 (15)
Tamil Nadu	93.26 (01)	36.54 (04)	29.80 (04)	76.05 (04)
Uttar Pradesh	40.20 (14)	40.12 (07)	11.70 (14)	11.7 (13)
West Bengal	67.12 (09)	67.42 (14)	26.77 (07)	26.6 (10)

Notes:
1. Figures in the parenthesis denote the ranks of the states concerned for the said variable.
2. For columns 2, 4, 5 higher values denote higher ranks while opposite is true for column 3.
3. Rank correlation between columns 2 and 4 is 0.89.
4. The sources of column 2 and 3 are same but that of column 4 is different; accordingly, the years of publication are different. However, the time period of reference is same.
5. Enrollment Rates – both conventional and effective – refer to the girl population in the age group of 6 – 10 years.

Source: Enrollment figures (col.: 2): NCERT (1986); Fifth All India Educational Survey;
Dropout figures (col.: 3) have been complied from the enrollment figures of NCERT (1986); Fifth All India Educational Survey and NCERT (1978) Fourth All India Educational Survey
Literacy Rate figures col. (4): Census of India (1981): Social and Cultural Tables.

The Spearman's rank correlation coefficient between conventional enrollment and factor of externality [Table 3; cols. 2 and 4 respectively] is found to be 0.89, thereby amply demonstrating that female education has positive spillover effect. So the choice of the female literate as the factor of externality in reshaping conventional literacy thus stands justified.

The new measure of effective enrollment rate constructed in Equation 2 is superior to the conventional measure of enrollment rate because it takes into account an important element – the factor of externality that widely influences the conventional measure of enrollment. In addition to altering the traditional measure, the factor of externality, via the effective enrollment rate, could also act as a powerful predictor of future educational attainment. To demonstrate the efficacy of the factor of externality in enhancing educational attainment of the future generation, Spearman's rank correlation between the female literate in the n-th year and the female primary school graduates in the $(n+10)^{th}$ year has been computed. Selection of the years has been made to focus upon the efficacy of the externality factor of Equation 2 in enhancing the future performance. In the present exercise, these two referred time points considered are 1981 and 1991. Table 4 represents, for selected major states of India, figures of (i) conventional rate of completion of primary education in the year 1991 for the rural female population belonging to the age group of 10–14 years and (ii) conventional literacy rate of the rural female population for the year 1981.

TABLE 4

Rate of Completion of Primary Education of the Female Population, 1991 and Female Literacy Rate, 1981 (Fifteen Major States, Rural India)

States	*Rate of Completion of Primary Education 1991*	*Conventional Rate 1981*
Andhra Pradesh	23.09 (10)	16.77 (12)
Bihar	16.39 (12)	12.39 (13)
Gujarat	46.90 (2)	28.80 (6)
Haryana	29.87 (7)	18.78 (10)
Himachal Pradesh	41.91 (4)	35.29 (2)
Karnataka	29.54 (8)	23.84 (8)
Kerala	56.40 (1)	74.17 (1)
Madhya Pradesh	15.98 (14)	17.29 (11)
Maharashtra	39.00 (5)	29.49 (5)
Orissa	20.19 (11)	21.99 (9)
Punjab	36.57 (6)	32.73 (3)
Rajasthan	9.90 (15)	6.48 (15)
Tamil Nadu	44.12 (3)	29.80 (4)
Uttar Pradesh	16.35 (13)	11.70 (14)
West Bengal	26.11 (9)	26.77 (7)

Notes: (i) Figures in the parenthesis denote the ranks of the states concerned for the said variable; (ii) completion of primary education has been considered for the age group of (10 – 14) years only.

Source: Census of India: Social and Cultural Tables, 1981, 1991.

The Spearman's rank correlation between the primary educational completion rates and conventional literacy rates, [columns 2 and 3 respectively], is obtained as 0.89. This reflects that female education is indeed a useful example of positive externality, particularly with respect to the female students. The high positive value of the correlation coefficient implies that the factor of externality is indeed a powerful predictor of further female education. Accordingly, it could be said that the effective enrollment measure (i.e., Equation 2) is a useful indicator of future performance of female education. It has thus been established that female education generates externality and this externality-based measure could be utilized as a better predictor to conventional literacy measure, as far as future furtherance of female education is concerned. This latter idea has been explicitly used in the following sub-section, towards the construction of an inter-generational gender based measure of educational performance.

Gender Based Externality at the Intergenerational Level

An illustrative example to demonstrate the usefulness of the measure of effective completion of primary education by the girls of the present generation (P^*_n) corresponding to Equation 3has been reported in the Table 5. For the districts of West Bengal (an Indian state), conventional completion rate P_n, effective completion rate P^*_n and the factor of externality have been reported in the Table 5; for each of these variables, absolute values as also the ranks have been made available. It is required to be mentioned that across the districts, P^*_n is comparable to P_n only in ranks and not in absolute values. This is simply due to the construction of Equation 3. It may be recalled that the difference between P^*_n and P_n is constituted of two positive sub-components – F_{n-10} and NP_n – accommodated in a multiplicative form. As a result, for every district, values of P^*_n are many times larger than that of P_n. By rank comparison between P^*_n and P_n across districts, four classifications are revealed:

i) *Improvement in rank*: there are four such districts – Murshidabad, Nadia, Twenty-Four Paraganas and Medinipur;
ii) *Marginal improvement in rank*: only two districts – West Dinajpur and Malda.
iii) *No change in rank*: there are five such districts – Coochbehar, Birbhum, Burdwan, Hooghly and Jalpaiguri;
iv) *Deterioration in rank*: there are four such districts – Darjeeling, Howrah, Bankura and Purulia.

From the group of improvement, three out of four districts have made this improvement possible simply due to high rank of factor of externality. For the fourth district i.e., Murshidabad, improvement is relatively less significant due to both low rank and low value of the factor of externality. From the group of deterioration, barring Howrah, for each of these districts, deterioration is attributed to low rank of factor of externality. In case of Howrah, it is observed that in spite of having second rank for the factor of externality, there is deterioration. It may be noted that F_{n-10} is having almost identical values for the two districts – Howrah and Hooghly; still Hooghly has been capable to retain its position while there is deterioration in case of Howrah. This must be due to

local disturbances. From the group of unchanged position, two districts – Cooch Behar and Jalpaiguri – have low values of both P^*_n and P_n, while the other two districts – Birbhum and Burdwan – have relatively high values of the said two variables. Interestingly, F_{n-10} has low ranks for the former two districts and relatively better ranks for the latter districts. Thus the factor of externality (F_{n-10}), is responsible for change of performance as one moves from P_n to P^*_n. Finally, West Dinajpur and Malda have experienced marginal improvement in their rank order as they move from P_n to P^*_n, owing to the poor status of factor of externality. In sum, the change in the rank order between conventional and effective rates of completion of primary education for girls is governed by the factor of externality. Only two out of fifteen districts have demonstrated the effect of local disturbances.

TABLE 5

Rates of Completion of Primary Education by the Female Population and the Factor of Externality; by the Districts of Rural West Bengal: 1991

States	*Primary Education Completion rate, (conventional)* p_n	*Factor of Externality* f_{n-10}	*Inter-generational Effective Rate of Completion of Primary Education* p_n^*
Bankura	28.5 (6)	26.2 (9)	1901.60 (8)
Birbhum	27.5 (7)	27.6 (7)	2060.42 (7)
Burdwan	30.1 (4)	33.4 (4)	2364.76 (4)
Coochbehar	23.3 (10)	20.7 (10)	1610.99 (10)
Darjeeling	31.9 (3)	27.3 (8)	1891.03 (9)
Hooghly	37.6 (2)	38.4 (3)	2433.76 (2)
Howrah	38.8 (1)	38.5 (2)	2395.00 (3)
Jalpaiguri	18.6 (12)	18.3 (12)	1508.22 (12)
Malda	14.9 (15)	14.9 (14)	1282.89 (14)
Medinipur	29.8 (5)	41.8 (1)	2964.16 (1)
Murshidabad	18.5 (13)	19.2 (11)	1583.30 ((11)
Nadia	26.3 (8)	28.4 (5)	2086.50 (6)
Purulia	22.0 (11)	12.1 (15)	965.80 (15)
Twenty-Four Paraganas	25.9 (9)	28.3 (6)	2122.93 (5)
West Dinajpur	15.1 (14)	15.4 (13)	1322.56 (13)

Notes: (i) Figures in the parenthesis denote the ranks of the districts concerned for the said variable. In every column higher value denotes higher rank only. (See All India Status, 1991 in Table given at Appendix I)

(ii) Indian Census data 2001 were not available at the time of present compilation

Source: Census of India, Social and Cultural Tables, 1981, 1991.

Conclusion and Policy Suggestions

Basu and Foster (1998) have characterized a measure of 'effective literacy' to capture intra-household externality arising from the presence of a literate member. This paper demonstrates that externalities in primary education do also exist beyond the household sector. Literacy levels (in the conventional sense) are made inequitable across the country due to a number of factors. The externality based effective measures of educational achievement explore the role of different factors in conditioning inequitable literacy levels or educational attainments at the primary level across different regions of the country. Further, the new measures communicate that the externalities in education, particularly in the primary education do exist due to market imperfections beyond the education market. This paper in particular has explored two important forms of externality that can, in general, improve (conventional) educational measure including literacy. It has specifically established that the care taken by the educated women, if explicitly utilized, could be demonstrated to lead to betterment of primary education, especially of the girls, of both contemporaneous as also inter-generational level.

If the incidence of literacy is high, the policy planners should take initiatives to motivate the local *panchayats* to keep more vigil towards the local primary schools and to make them more accountable. This will help improve both the quantity and quality of literacy, depending on the number of villages belonging to each such concerned *panchayat*.

What is even is more important for the policy planners to note is that literate or educated women can play a major role in improving both quality and quantity of primary education, in general and literacy, in particular; this is especially true for the female population. Therefore, large-scale utilization of educated local women in running non-formal local education centres should receive priority from the policy planners.

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Notes

1. The current exercise does not concentrate on urban administration and its role of externality due to: (i) population density is much higher in urban areas, compared to its rural counterpart, so efficacy of the administration may diminish. (ii) Urban population, especially the poorer sections, is migratory population, (iii) rural areas have market segmentation and market incompleteness and (iv) urban areas, unlike rural counterparts, witness milieu of currents and cross-currents of socio-economic activities, with weak social links. Hence, the functioning of externalities is important only in rural areas.
2. The Government of West Bengal has launched an education programme named "*Shishu Siksha Karma Suchi*" to enable the children of remote areas have access to the school system. The teachers in the *Shishu Siksha Karma Suchi* are known as *Sahayikas* and all of them are females.
3. Since these values are selected purely arbitrarily, by constructing counterparts of the Table 1, variations in the effective literacy rates could be demonstrated corresponding to different values of 'a' and 'b'. However, such an attempt has not been worked out here for the sake of brevity.

Appendix I

TABLE A.1

Rates of Completion of Primary Education by the Female Population and the Factor of Externality; by the States of Rural India: 1991

States	*Primary Educational Completion Rate Pn*	*Factor of Externality Fn-10*	*Inter-generational Effective Rate of Completion of Primary Education Pn **
Andhra Pradesh	23.09 (10)	16.77 (12)	1312.87 (12)
Bihar	16.39 (12)	12.39 (13)	1052.31 (13)
Gujarat	46.90 (02)	28.80 (06)	1576.18 (09)
Haryana	29.87 (07)	18.78(10)	1346.91 (11)
Himachal Pradesh	41.91 (04)	35.29(02)	2091.9 (03)
Karnataka	29.54(08)	23.84 (08)	1709.3 (08)
Kerala	56.40 (08)	74.17 (01)	3290.21(01)
Madhya Pradesh	15.98(14)	17.29 (11)	1468.68 (10)
Maharashtra	39.00(05)	29.49 (05)	1837.89 (05)
Orissa	20.19(11)	21.99 (09)	1775.21 (06)
Punjab	36.57(06)	32.73 (03)	2112.63 (02)
Rajasthan	9.90(15)	6.48 (15)	593.74B(14)
Tamil Nadu	44.12(03)	29.80 (04)	1709.34 (07)
Uttar Pradesh	16.35(13)	11.70 (14)	995.05 (14)
West Bengal	26.11(09)	26.77 (07)	2004.14 (04)

Notes:

(i) Figures in the parenthesis denote the ranks of the districts concerned for the said variable. In every column higher value denotes higher rank only.

(ii) Indian Census data 2001 were not available at the time of present compilation.

Source: Census of India, Social and Cultural Tables, 1981, 1991.

Appendix II

Gender Based Externality at the Intergenerational Level

An illustrative example to demonstrate the usefulness of the measure of effective completion of primary education by the girls of the present generation (P_n^*) corresponding to Equation 3 has been reported in the Appendix Table. For the states of India, conventional completion rate P_n, effective completion rate P_n^* and the factor of externality have been reported in the Appendix Table; for each of these variables absolute values as also the ranks have been made available. It is required to be mentioned that across the districts, P_n^* is comparable to P_n only in ranks and not in absolute values. This is simply due to the construction of Equa5tion 3. It may be recalled that the difference between P_n^* and P_n is constituted of two positive sub-components- F_{n-10} and NP_n – accommodated in a multiplicative form. As a result, for every state, values of P_n^* are many times larger than that of P_n. By rank comparison between P_n^* and P_n across states four classification are revealed:

a) Improvement in rank: there are four such states- Madhya Pradesh; West Bengal; Orissa and Punjab.
b) Marginal improvement in rank: there are two such states – Himachal Pradesh and Rajasthan.
c) No change in rank: there are three such states: Kerala, Maharashtra and Karnataka.
d) Deterioration in rank: there are five such states: Andhra Pradesh, Uttar Pradesh, Bihar, Gujarat and Haryana.

From the group of improvement three out of four states have made the improvement, due to high rank of factor of externality. For the fourth state i.e. Madhya Pradesh improvement is less significant due to low rank of the factor of externality.

From the group of deterioration – the deterioration is attributed to the poor performance of the factor of the externality. The performance of the states with unchanged rank order can be attributable to the performance of the factor of externality as one moves from Pn to Pn* (cols 2 to col. 4). Himachal Pradesh witnessed a marginal improvement- due to better performance of the factor of externality. Rajasthan a poor performing state experienced improvement owing to a feeble performance of the factor of externality. In, sum the change in the rank order between conventional and effective rates of completion of primary education for girls is governed by the factor of externality.

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Educational Development, Public Expenditure and Financing of Secondary Education in Punjab[+]

Sucha Singh Gill[*]
Sukhwinder Singh*
Jaswinder Singh Brar*

Abstract

This paper examines the school education sector of Punjab state from three dimensions: (a) educational progress in terms growing number of schools, students, teachers, etc.; (b) public expenditure on school education; and (c) financing patterns and practices of secondary education. The study vividly establishes the highly iniquitous nature of educational progress that has taken place in the state. Punjab's educational sector, both, public and private, suffers from numerous structural deficiencies. In fact, schools of all categories, in one way or the other, have deviated from the long-cherished goal of education, i.e. social maximum. During the study period (1980-81 to 2001-02), the share of educational budget in state budgetary expenditure declined drastically. The average level of per student real expenditure also declined during the later half of study period. From the scrutiny of actual financing practices, it emerges that the unaided private schools depended exclusively upon fees and funds charged from students for financing their expenditure. The government owned schools depended essentially upon state grants. The share of other sources of finance such as voluntary sources and government schemes was found to be very low. These schools are unable to adopt innovative methods of financing education, except from the PTA contribution. There exists a strong case for enhancement of public resources for school education along with strong regulation of unaided private educational sector in the state.

Introduction

Education is the cornerstone of economic, social and cultural development of a country. It has emerged as the most important single input in promoting human resource development, in achieving rapid economic development and technological progress, and

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[+] This paper partly draws from a research study conducted by the authors for NIEPA.

[*] Department of Economics, Punjabi University, Patiala-470002 (Punjab).
E-mail: suchasinghgill@yahoo.com

in creating a social order based on the virtues of freedom, social justice and equal opportunities in the country.An appropriate education system cultivates knowledge, better skills, positive values and attitudes among the people, especially those who acquire it.

These qualities of the country's workforce, in this era of globalisation and liberalisation, are considered to be the most significant factors in reaping new opportunities and benefits in one's favour by integrating a nation's economy into the world economy. In India, recent economic policy reforms, fast changing production and information technologies have created completely a new economic environment. These changes have posed many policy challenges to the present as well as the future education system of the country. It demands that the education system must be redesigned to meet country's growing demands for trained manpower which can readily and continuously acquire newer knowledge and skills. This could be possible only if the basic capabilities learned at the school level education (both primary and secondary) are enhanced. To improve these capabilities, more public funds should be made available to the school education sector. School education, therefore, has become the most important basic input to enhance the human capabilities and quality of life of the people (Todaro, 1997). Naturally, school education deserves the high priority area in the distribution of resources within the education sector of a country/region.

Punjab state, located in the north-western India, has an active international border with the Pakistan and hence occupies a position of great strategic importance. Historically, Punjab has experienced many upheavals and turmoils which have influenced its path of development. Consequenly, the administrative map of Punjab has undergone extraordinary changes in the past. For example, the Partition of Indian Sub-continent in 1947 and the reorgnisation of Punjab in 1966 are the two classic examples that have not only shrunk its geographical area, but also influenced its future development pattern. At present, Punjab accounts for 1.5 per cent of country's total area and 2.4 per cent of total population. Its rank is 19th in terms of area and 15th in terms of population among all the states and union territories of India. The density of population works out to be 482 persons per sq. km. in 2001 and its rank was the 10th in India (Census of India, 2001).

Punjab is one of the most advanced and prosperous states of India with the lowest poverty rate (World Bank, 2004). Its economy has emerged as a fast developing economy with agriculture development at its foundation. Its agriculture sector is credited for ushering in the green revolution in the country. This is mainly due to a progressive outlook of hardworking farmers and a mix of high yield variety seeds, irrigation facilities and chemical fertilizers that have laid down the strong foundation of development of the state. This process has been further strengthened by agricultural credit societies, state market support, rural link roads, village electrification, and a variety of extension services. The state today contributes nearly 40 per cent of wheat and 60 per cent of rice procured for the distribution through the Public Distribution System in India. The state also promoted the dairy industry resulting in the highest per capita availability of milk to the people. An agro-based and agro-oriented industrialization is another significant feature of the state economy.

The cumulative effect of all these has been manifest in the accelerated economic growth and steadily rising per capita income in the state compared to the growth rates of major Indian states and the Indian economy as a whole, particularly during the mid-1960s to the early 1990s. Consequently, the state has achieved the highest per capita income, a position of pride that Punjab has been holding for most of years since its reorganization in 1966. Punjab state is, therefore, expected to have the better educational progress compared to other states. The educational attainments in Punjab, however, do not commensurate with its highest per capita income in the country. For example, in 2001, Kerala state having much lower per capita income than that of Punjab had higher literacy rate (90.92 per cent) as compared to the literacy rate (69.95 per cent) of Punjab. Among all the states and union territories, Punjab ranks 16th in the literacy rate in 2001, whereas its rank was the 12th in 1971. Even within the state, the literacy rate varies quite widely between rural and urban areas, between males and females and between scheduled castes and non-scheduled castes population (Brar, 2002). The paper covers educational development in Punjab and also deals with educational expenditure. The results of primary survey on financing of secondary education in Punjab are also presented before finally summing up the main findings and raising certain policy issues.

Educational Structure in Punjab

Theoretically, the state's education structure, particularly the school education, is based on the national pattern of 12 years (10+2) of schooling. The school education in Punjab consists of eight years of compulsory elementary education (I-VIII), two years of high/secondary education (IX-X) and two years of senior secondary education (XI-XII). Besides this, it has two/three years of pre-primary education, mostly prevalent in the aided and/or unaided schools.

The eight years of elementary education is divided into two levels: (a) five years of primary level education (6-11 years age-group), and (b) three years of middle level education (11-14 years age-group). It is followed by two years of high/secondary level education that develops the basic competencies in the key subjects of society's interest. The senior secondary education, which is again of two years duration, enables students to pursue studies either in the universities/colleges/institutes for further higher education or trained them in vocational education to enter the world of work. After high school or senior secondary education level, some students join the Industrial Training Institutes, Polytechnics, etc. to acquire low-level skills.

Under the new pattern of 10+2 education level, students after completing high school education can opt for any of two separate streams: (a) general or academic which comprises of science, commerce and humanities streams; and (b) vocational stream which consists of many vocational trades. Both streams are of two years duration. In Punjab, students can branch off at various stages of education. For example, a student can join the Industrial Training Institute (ITIs) after the middle stage or the high school stage, and the Polytechnic after completing the secondary stage of education. After the senior secondary stage, students can go in for three years duration graduate degree in

science/commerce/humanities/computer science followed by a post-graduate course of two years duration. Students can also opt for technical and professional courses such as the bachelor degree in engineering, medicine, pharmacy and physiotherapy; and the elementary teachers training (ETTs) programme. The duration of these courses varies, and each professional degree course has an option for post-graduation degree programme. At the end of post-graduation or master's degree, a student may do research work for a M.Phil./Ph.D. degree.

Progress of School Education in Punjab

School education imparted through formal institutions is the basic input to enhance the human competencies and quality of life because this type of education produces strong positive effects on the productivity of workforce, helps to diffuse knowledge about new technology at a faster rate and brings in high private as well as social market returns. Regarding the social outcomes of school education, many studies highlight the strong overall relationship between educational levels, infant and child mortality rates, fertility rates and nutritional status of children (World Bank, 1997).

Growing Number of Schools

In Punjab, there were 12384 primary schools, 1410 middle schools and 2413 high/higher secondary schools in 1981 (Table 1). This number rose to 13074 for primary schools, 2513 middle schools and 3901 high/higher secondary schools in 2001. The data reveal that, between 1981 and 2001, opening of new primary schools has been slowed down to the minimum level, whereas between 1971 and 1981, 6013 new primary schools were established in Punjab (Mittar, Singh, S. and Brar, J.S 2002). On the other hand, only 81 and 609 primary schools were added in Punjab during the decades of 1981-91 and 1991-2001 respectively.

The compound growth rate in primary schools between 1981 and 2001 worked out to be very low, i.e. 0.27 per cent per annum. Among primary schools, the compound growth rate was found to be higher in the urban areas (1.55 per cent per annum) than in the rural areas (0.14 per cent per annum). The number of middle schools grew at the rate of 2.93 per cent per annum during 1981-2001 and that of high/higher or senior secondary schools at the rate of 2.42 per cent per annum during the same period. Further, compound growth rates among middle schools located in rural and urban areas do not show much variation. However, in the case of high/higher or senior secondary schools, rural schools grew at the growth rate of 2.51 per cent per annum as compared to the growth rate of 2.42 per cent per annum among urban schools between 1981 and 2001. The deceleration in growth rate of the primary schools compared to the growth rate of middle schools and high/higher or senior secondary schools in Punjab indicates that this is largely due to the large scale upgradation of the existing primary schools to the higher level of education in the state. An assessment of the data also shows (Table 1) that the structure of school education in Punjab has witnessed some significant changes during the last twenty years. The share of primary schools declined from 76.38 per cent in 1981 to 74.87 per cent in

1991 and to 67.09 per cent in 2001. On the other side, the share of middle schools increased from 8.69 per cent in 1981 to 12.90 per cent in 2001, and that of high/higher or senior secondary schools raised from 14.92 per cent in 1981 to 20.02 per cent in 2001. This may be mainly due to the government policy to upgrade the primary schools to the higher levels, particularly in rural areas.

TABLE 1

Progress of Government and Non-Government Schools (Recognized) in Punjab by Education Level, 1981-2001

Education Level		*1981*	*1991*	*2001*	*Compound growth rate per annum*		
					1981-2001	*1981-91*	*1991-2001*
Primary	R	11396 [70.29] (92.02)	11361 [68.24] (91.14)	11731 [60.20] (89.73)	0.14	-0.03	0.32
	U	988 [6.09] (7.98)	1104 [6.63] (8.86)	1343 [6.89] (10.27)	1.55	1.12	1.98
	T	12384 [76.38] (100.00)	12465 [74.87] (100.00)	13074 [67.09] (100.00)	0.27	0.06	0.48
Middle	R	1286 [7.93] (91.21)	1208 [7.26] (85.07)	2291 [11.76] (91.17)	2.93	-0.62	6.61
	U	124 [0.76] (8.79)	212 [1.27] (14.93)	222 [1.14] (8.83)	2.95	5.51	0.05
	T	1410 [8.69] (100.00)	1420 [8.53] (100.00)	2513 [12.90] (100.00)	2.93	0.01	5.87
High/Hr. or Senior Secondary	R	1768 [10.90] (73.09)	2057 [12.36] (74.42)	2902 [14.89] (74.39)	2.51	1.53	3.50
	U	651 [4.02] (26.91)	707 [4.24] (25.58)	999 [5.13] (25.61)	2.10	0.83	3.52
	T	2419 [14.92] (100.00)	2464 [16.60] (100.00)	3901 [20.02] (100.00)	2.42	1.34	3.51
Total	R	14450 [89.13] (89.13)	14626 [87.85] (87.85)	16924 [86.84] (86.84)	0.79	0.12	1.47
	U	1763 [10.87] (10.87)	2023 [12.15] (12.15)	2564 [13.16] (13.16)	1.89	1.39	2.40
	T	16213[100.00] (100.00)	16649[100.00] (100.00)	19488[100.00] (100.00)	0.92	0.27	1.59

R = Rural, U = Urban, T = Total

Source: Economic Advisor, *Social and Educational Statistics of Punjab*, (various issues), Government of Punjab
Economic Advisor, *Statistical Abstract of Punjab, 2002*, Government of Punjab.
Economic Advisor, *Economic Survey of Punjab*, (various issues), Government of Punjab

The location-specific information of schools points out that about 90 per cent of the primary and middle schools are located in the rural areas. Similarly, about three-fourth majority of high/higher or senior secondary schools are located in rural Punjab. Their proportion, however, has increased marginally from 73.09 per cent in 1981 to 74.39 per cent in 2001. Thus, education facilities at school level are fairly adequate in rural Punjab as the number and proportion of rurally located schools are much higher than that of the share of rural population (65.05 per cent as per 2001 Census). Thus, rural-urban distribution of schools in Punjab seems to be rational.

Increasing Enrollment of Students in Schools

The number of schools, as such, may not be a very good indicator of progress of school education system in a country because schools only indicate the availability of education facilities in the state. In fact, the data on student enrollment in these schools can provide some indications of the extent to which school education facilities are utilized. The analysis of data shows (Table 2) that, in Punjab, total students enrolled in recognized schools have increased from 30.13 lakh in 1981 to 36.04 lakh in 1991 and to 39.23 lakh in 2001; an increase of 5.91 lakh students during the decade of 1981-91 and 3.19 lakh students during the decade of 1991-2001. In fact, an absolute increase in student enrollment has been observed both for boys and girls at the primary, middle and high/higher secondary levels of education. Further, out of total school enrollment, girls accounted for 43.01 per cent in 1981 which rose to 44.89 per cent in 1991 and 46.62 per cent in 2001. A similar rising trend of girls has been observed at all levels of education.

Interestingly, education level-wise composition of girl students enrolled for all these years has increased markedly. For example, gender-wise percentage growth rate per annum in school enrollment (Table 2) points out that in the case of girls, it is higher than that of boys for all education levels as well as all time periods. The percentage distribution of total students enrolled by education level and gender also support these trends (Table 3). Although the share of girls at high/higher secondary education level was very low in 1981 (8.88 per cent) compared to boys (10.95 per cent), yet girls' share rose consistently to 15.88 per cent compared to 17.83 per cent of boys in 1991 and 21.27 per cent of girls compared to 22.35 per cent of boys in 2001. Still, the girls' share is 1.08 percentage points below than that of boys. The analysis, thus, proves that, in Punjab, not only the number of schools has increased over time periods, but the enrollment of students has also increased, and that too at a faster rate. The enrollment of girl students has also moved up at all levels of school education, and the differentials in the proportions of boys and girls have been reduced even at the higher level of education.

TABLE 2

Progress of Enrollment of Students in Schools in Punjab by Education Level and Gender, 1981-2001

(Number of students in lakh)

Education Level		*1981*	*1991*	*2001*	*Compound growth rate per annum*		
					1981-2001	*1981-91*	*1991-2001*
	B	11.09 (55.01)	11.24 (53.88)	10.99 (53.01)	-0.05	0.13	-0.22
Primary (I to V)	G	9.07 (44.99)	9.62 (46.12)	9.74 (46.99)	0.36	0.60	0.12
	T	20.16 (100.00)	20.86 (100.00)	20.73 (100.00)	0.14	0.34	-0.06
	B	4.20 (60.52)	5.08 (56.01)	5.27 (53.07)	1.14	1.92	0.37
Middle (VI-VIII)	G	2.74 (39.48)	3.99 (43.99)	4.66 (46.93)	2.69	3.83	1.56
	T	6.94 (100.00)	9.07 (100.00)	9.93 (100.00)	1.81	2.71	0.91
	B	1.88 (62.05)	3.54 (57.94)	4.68 (54.61)	4.66	6.53	2.83
High/Hr. or Sr. Secondary	G	1.15 (37.95)	2.57 (42.06)	3.89 (45.39)	6.28	8.37	4.23
(IX to XII)	T	3.03 (100.00)	6.11 (100.00)	8.57 (100.00)	5.34	7.27	3.44
	B	17.17 (56.99)	19.86 (55.11)	20.94 (53.38)	1.00	1.47	0.53
Total	G	12.96 (43.01)	16.18 (44.89)	18.29 (46.62)	1.74	2.24	1.23
	T	30.13 (100.00)	36.04 (100.00)	39.23 (100.00)	1.33	1.81	0.85

B = Boys, G = Girls, T = Total
Figures in parenthesis are percentages
Source: As reported in Table 1

Growing Proportion of Scheduled Castes Students

In Punjab, enrollment of scheduled castes students has also shown a rising trend among all levels of school education (Table 4). In absolute terms, their number which was 7.85 lakh (4.75 lakh boys and 3.10 lakh girls) in 1981 increased to 10.55 lakh (6.04 lakh boys and 4.51 lakh girls) in 1991 and touched to 14.59 lakh (7.73 lakh boys and 6.86 lakh girls) in 2001. In relative terms also, students belonged to scheduled castes category formed 26.05 per cent (27.66 per cent of boys and 23.92 per cent of girls) of total school enrollment in 1981. This ratio shot up to 29.27 per cent (30.41 per cent of boys and

27.87 per cent of girls) in 1991 and 37.19 per cent (36.91 per cent of boys and 37.51 per cent of girls) in 2001. At the primary level, the share of scheduled castes students was 29.56 per cent (31.02 per cent for boys and 27.78 per cent for girls) in 1981 and it rose to 35.00 per cent (36.12 per cent boys and 33.68 per cent of girls) in 1991 and to 45.01 per cent (44.59 per cent of boys and 45.48 per cent of girls) in 2001. This ratio is fairly higher as compared to their proportion in total population of Punjab (28.31 per cent) as per the 1991 census.

TABLE 3

Percentage Distribution of School Students Enrolled in Punjab by Education Level and Gender, 1981-2001

Educational Level		*1981*	*1991*	*2001*
Primary (I to V)	Boys	64.59	56.59	52.48
	Girls	69.98	59.46	53.25
	Total	66.91	57.88	52.64
Middle (VI-VIII)	Boys	24.46	25.58	25.17
	Girls	21.14	24.66	25.48
	Total	23.03	25.17	25.31
High/Higher or Senior Secondary (IX to XII)	Boys	10.95	17.83	22.35
	Girls	8.88	15.88	21.27
	Total	10.06	16.95	21.85
Total Students	Boys	100.00	100.00	100.00
	Girls	100.00	100.00	100.00
	Total	100.00	100.00	100.00

Prepared from the data given in Table 2
Source: As reported in Table 1

The proportion of scheduled castes students has also been risen both for boys and girls at the middle and high/higher or senior secondary education levels. For instance, at the middle level, the share of scheduled castes students was 20.31 per cent (22.86 per cent of boys and 16.42 per cent of girls) in 1981 and increased to 23.15 per cent (24.80 per cent of boys and 21.05 per cent of girls) in 1991 and 33.74 per cent (33.59 per cent of boys and 33.91 per cent of girls) in 2001. Similarly, at the high/higher secondary level, the proportion of scheduled castes students which was 15.84 per cent (18.62 per cent of boys and 11.30 per cent of girls) in 1981 moved up to 18.82 per cent (20.34 per cent of boys and 16.73 per cent of girls) in 1991 and 22.29 per cent (22.65 per cent of boys and 21.85 per cent of girls) in 2001. The analysis, thus, clearly portrays that enrollment of scheduled castes students is comparatively higher at the primary level than that of their proportion in the population of the state. In fact, the real reason for the increase in proportion of weaker sections students in total students in government schools is the shift of students of richer sections from government schools to private schools.

Another noteworthy trend is that the ratio of scheduled castes girls out of total enrollment of girls has also shown a rising trend at all levels of education. The ratio of such girl students at the primary level increased from 27.78 per cent in 1981 to 45.48 per cent in 2001; at the middle level from 16.42 per cent in 1981 to 33.91 per cent in 2001; and at the high/senior secondary level from 11.30 per cent in 1981 to 21.85 per cent in 2001. However, there is high drop-out rate among girls, especially amongst the scheduled castes girls at the middle and high/senior secondary education levels as is evident from their declining percentages in higher schools education levels. This situation demands some corrective measures to checkout the dropout rate among girl students at middle and high/senior secondary stages of education.

TABLE 4

Percentage Share of Scheduled Castes Students to Total School Students Enrolled by Education Level and Gender, 1981-2001

Education Level		*1981*	*1991*	*2001*	*Compound growth rate per annum*		
					1981-2001	*1981-1991*	*1991-2001*
Primary (I-V)	B	31.02 (3.44)	36.12 (4.06)	44.59 (4.90)	1.78	1.67	1.90
	G	27.78 (2.52)	33.68 (3.24)	45.48 (4.43)	2.86	2.54	3.18
	T	29.56 (5.96)	35.00 (7.30)	45.01 (9.33)	2.27	2.05	2.48
Middle (V-VIII)	B	22.86 (0.96)	24.80 (1.26)	33.59 (1.77)	3.11	2.76	3.46
	G	16.42 (0.45)	21.05 (0.84)	33.91 (1.58)	6.48	6.44	6.52
	T	20.31 (1.41)	23.15 (2.10)	33.74 (3.35)	4.42	4.06	4.78
High/Higher or Senior Secondary (IX-XII)	B	18.62 (0.35)	20.34 (0.72)	22.65 (1.06)	5.70	7.48	3.94
	G	11.30 (0.13)	16.73 (0.43)	21.85 (0.85)	9.84	12.71	7.05
	T	15.84 (0.48)	18.82 (1.15)	22.29 (1.91)	7.15	9.13	5.20
Total	B	27.66 (4.75)	30.41 (6.04)	36.91 (7.73)	2.46	2.43	2.50
	G	23.92 (3.10)	27.87 (4.51)	37.51 (6.86)	4.05	3.82	4.28
	T	26.05 (7.85)	29.27 (10.55)	37.19 (14.59)	3.15	3.00	3.30

B = Boys, G = Girls, T = Total

Figures in parentheses are number of scheduled castes students (in lakh).

Source: As reported in Table 1.

Growth of School Teachers

No doubt, teachers are important input in the educational development process. Unlike physical and other inert inputs, teachers along with students are the living and lively inputs as they are human beings with intelligence and emotions. In fact, an ideal education system has always strived for a greater demand for better human infrastructure in the form of good teachers, particularly to operate the physical infrastructure more effectively and efficiently. The growth of teachers has also a significant bearing on the financing of education as their salary cost is the major component of public expenditure on education in the state. Number of teachers in Punjab's recognized schools, like that of schools and students, has grown at the fast rate. There were 0.97 lakh school teachers in Punjab in 1981 and their number increased to 1.23 lakh in 2001; reflecting a growth rate of 1.19 per cent per annum (Table 5). The maximum growth in number of school teachers was observed during the decade of 1991-2001; growing at the rate of 1.28 per cent per annum.

TABLE 5

Progress of School Teachers in Punjab by Education Level, 1981-2001

Education Level	*1981*	*1991*	*2001*	*Compound Growth Rate per annum*		
				1981-2001	*1981-1991*	*1991-2001*
Primary (I to V)	50816 (52.39)	53552 (49.51)	48555 (39.53)	-0.23	0.53	-0.97
Middle (VI-VIII)	27921 (28.78)	30462 (28.16)	38621 (31.44)	1.64	0.88	2.40
High/Higher or Senior Secondary (IX-XII)	18266 (18.83)	24158 (22.33)	35654 (29.03)	3.40	2.84	3.97
Total	97003 (100.00)	108172 (100.00)	122830 (100.00)	1.19	1.10	1.28

Figures in parentheses are percentages
Source: As reported in Table 1

As expected, primary school teachers formed the largest group among total school teachers. However, their share has declined consistently from 52.39 per cent in 1981 to 49.51 per cent in 1991 and 39.53 per cent in 2001. During 1991-2001, primary school teachers have decreased in absolute numbers also. On the other hand, the middle and high/senior secondary school level teachers have grown both in absolute and relative terms. For example, the share of middle school teachers had increased from 28.78 per cent (27,921 teachers) in 1981 to 31.44 per cent (38,621 teachers) in 2001 and that of high/secondary school teacher from 18.83 per cent (18,266 teachers) in 1981 to 29.03 per cent (35,654 teachers) in 2001.

As a result of continuous rise in the number of school teachers, the student-teacher ratio has become favourable in Punjab as compared to other states in India (Table 6). For example, at the primary level, this ratio is quite comparable to an average of 40:1 which is considered to be the normative ratio in India (World Bank, 1997, p.70). At the middle level, the student-teacher ratio lies between 25 and 30 and at the high/senior secondary level; it varies between 17 and 25 during 1981-2001.

TABLE 6

Student-Teacher Ratio in Punjab by Education Level, 1981-2001

Educational Level	*1981*	*1991*	*2001*
Primary (I-V)	40	39	43
Middle (VI-VIII)	25	30	26
High/Higher or Senior Secondary (IX-XII)	17	25	24
Overall	31	33	32

Source: Calculated from the data in Table 2 and Table 5.

Punjab's School Education: Main Shortcomings

Data on number of schools, student enrollments and teachers suggest that Punjab has made much progress in quantitative terms in expanding access to education, particularly at the primary level. However, Punjab does not have an envious position among Indian states with respect to progress in literacy and educational attainments. There are some major weaknesses in Punjab's school education system that constraint its further qualitative growth. These weaknesses are elaborated here:

First, the gross enrollment ratio/rate[1] is the total enrollment at a given educational level, regardless of age, divided by the population age-group that typically corresponds to that level of education. This rate simply shows the number of children ever enrolled per hundred children in that age-group. The specification of age-groups varies by country, based on different national system of education and the duration of schooling at the elementary and secondary levels. However, within the country, gross enrollment ratio is recognized as a good indicator. Further, gross enrollment rates may exceed 100 per cent if individuals outside that age-group, corresponding to a particular educational level, are enrolled in that level.

An assessment of gross enrollment rates in Punjab (Table 7) reveals some interesting points. *One*, gross enrollment rate at the primary level for boys has increased from 79.48 per cent in 1971 to 97.80 per cent in 1981. The corresponding enrollment rate for girls has also increased from 63.69 per cent in 1971 to 96.90 per cent in 1981. However, this rate decreased to 86.66 per cent for boys and to 83.27 per cent for girls in 1991. During the period 1991-2000, these rates rose further to 92.87 per cent and 85.96 per cent for boys and girls respectively. Interestingly, gross enrollment rates in 2000 are much lower than those of in 1981. *Two*, despite the constitutional responsibility and enactment of Compulsory Primary Education Act of 1960 in Punjab, the state has yet to achieve 100

per cent enrollment ratio for the primary age-group, Kerala and Tamil Nadu have achieved it much earlier. *Three*, enrollment rate for girls has shown much increase as compared to boys at all levels of education. *Four*, at the high/senior secondary levels of education, there are many differences shown in gross enrollment rates among the boys and the girls during all these years. *Fifth*, by taking into account the percentage share of respective age-group population, primary education in the state has shown better enrollment rates as compared to the rates at the middle and high/higher or senior secondary education levels. Therefore, Punjab could not achieve 100 per cent enrollment ratio even at the primary level, what to speak about at the middle or high/senior secondary levels of education.

TABLE 7

Gross Enrollment Ratio in Punjab by Gender and Education Level

Education Level		*1971*	*1981*	*1991*	*2000*
Primary (I-V)	B	79.48	97.80	86.66	92.87
	G	63.69	96.90	83.27	85.96
	T	72.13	94.43	85.07	89.45
Middle (VI-VIII)	B	51.98	65.73	74.38	71.00
	G	32.45	49.49	65.63	74.44
	T	43.04	58.17	70.26	73.03
High/Higher or Senior Secondary (IX-XII)	B	32.95	27.56	47.90	-
	G	12.85	18.91	39.06	-
	T	18.21	23.49	43.76	-

Source: Calculated from the data in Table 2 and Census Population figures in Table 8.

Second major weakness of Punjab's education system is the high drop-out rate among school children. Drop-out rates[2] reveal the extent of discontinuation in studies by the student at various levels of education. The gender-wise differences in drop-out rates depict the strength of economic and social constraints that are working against the weaker sections of society. The comparative picture of drop-out rates by sex and level of education in Punjab point out (Table 9) that more than one-fifth of primary school students did not complete the primary education cycle between 1993 and 2001-02. At the middle and high school level, the drop-out rates are quite high, but have shown a declining trend. In case of middle school level, the drop-out rate declined from 39.22 per cent in 1993 to 27.91 per cent in 1998 and rose to 36.99 per cent in 2001-02. At the high school level, the drop-out rate decreased from 48.53 per cent in 1993 to 42.03 per cent in 1998 and 38.62 per cent in 2001-02. The drop-out rate for girls as compared to boys has remained higher, especially at the middle and high school levels both during 1993 and 1998. For example, 52.80 per cent of enrolled girls against 44.87 per cent enrolled boys did not complete high school education in 1993 and, 44.35 per cent girls against 39.99 per cent boys did not complete the high school level in 1998. However, in 2001-02,

drop-out rate among girls (38.25 per cent) is marginally less than that of boys (38.95 per cent). Indeed, Punjab has virtually decreased the gender gap in drop-out rates between boys and girls at all levels of education.

TABLE 8

Population Census Data by Age and Gender in Punjab

(Figures in thousand persons)

Year / Age		1971 Census	1981 Census	1991 Census	2000 Estimated
6-10	M	1067	1134	1297	1206
	F	928	1001	1155	1154
	T	1995	2135	2452	2361
11-13	M	581	639	683	727
	F	490	554	608	630
	T	1071	1193	1291	1357
14-16	M	562	682	739	n.a.
	F	498	608	658	
	T	1060	1290	1397	
17	M	112	147	166	n.a.
	F	98	131	148	
	T	210	278	314	

M = Male, F = Female, T = Total

n.a. means not available

The World Bank (1997), Primary Education in India, Washington, D.C., pp. 274-279.

Source: 1. Census of India 1971, *Social and Cultural Tables and Fertility Tables*, Punjab, p. 78.
2. Census of India 1981, *Social and Cultural Tables*, Punjab, p. 142.
3. Census of India 1991, *Social-Cultural Tables*, Punjab, p. 320.

Third, another important aspect of Punjab's school education is the proportion of students who repeat in the same class. The data are a pointer (Table 10) that the proportion of those students who repeated in 1990-91 at the primary level has been 3.65 per cent, at the middle level 4.92 per cent and at high school level 7.21 per cent. Another 5.85 per cent of the students have also repeated at the senior secondary level of education. Interestingly, the proportion of repeaters among girls is less than that of boys at all levels of education. The high dropout and repetition rates put a question mark on state's strategic goal to enable all children up to the age of 14 years to complete elementary education of good quality. The speed with which this goal can be achieved in Punjab will be determined by the success of state government efforts in creating an accessible school related infrastructure, enhancing the demand for schooling and increasing the efficiency of students flow (by reducing dropout and repetition rates).

TABLE 9

Drop-out Rates in Punjab by Gender and Education Level

Education Level	*1993*			*1998*			*2000-01*			*2001-02*		
	B	G	T	B	G	T	B	G	T	B	G	T
I – V	21.00	22.94	22.00	22.86	20.62	21.78	21.96	18.53	20.36	21.28	19.28	20.33
I – VIII	36.14	42.78	39.22	26.61	29.39	27.91	38.86	37.42	37.13	35.31	38.82	36.99
I – X	44.87	52.80	48.53	39.99	44.35	42.03	40.39	38.84	39.67	38.95	38.25	38.62

B = Boys, G = Girls, T = Total

Source: *Economic Survey of Punjab 1999-2000*, Government of Punjab, Chandigarh, p. 101.

TABLE 10

Percentage Distribution of Repeaters to Total Enrolled Students in Punjab by Gender and Education Level, 1990-91

Education Level	*Boys*	*Girls*	*Total*
Primary (I-V)	3.81	3.46	3.65
Middle (VI-VIII)	5.50	4.16	4.93
High (IX-X)	7.94	6.19	7.21
Senior Secondary (XI-XII)	6.31	5.21	5.85

Source: *Social Statistics of Punjab 1995*, Government of Punjab, Chandigarh, p. 205.

Fourth, in the last decade or so, there has been a rapid growth in the number of unrecognised privately financed primary schools in Punjab. These schools have begun to attract an increasing proportion of total number of students, enrolled in them. For instance, the proportion of students enrolled in these unrecognised private schools at the primary level has been reached to 24.50 per cent in 2000-01 from 20.34 per cent in 1995-96 (Table 11). On the other hand, the share of students enrolled in government owned primary schools (I-V classes) has gradually declined to 66.28 per cent in 2000-01 from 71.66 per cent in 1995-96. The proportionate share of total enrollments in the recognised non-government primary schools has marginally gone up to 9.22 per cent from 8.00 per cent during the same period.

TABLE 11

Percentage Distribution of Students Enrolled at Primary Level in Punjab by School Recognition Pattern

Year	*Government Schools*	*Recognised Schools*	*Unrecognised Schools*	*Total*
1995-96	71.66	8.00	20.34	100.00
1996-97	71.86	8.90	19.24	100.00
1997-98	70.68	9.03	20.29	100.00
1998-99	70.91	8.87	20.22	100.00
1999-2000	69.48	8.40	22.12	100.00
2000-2001	66.28	9.22	24.50	100.00

Source: Office of DPI (Schools), Government of Punjab, Chandigarh

This larger growth in the proportion of students' enrollment in these unrecognized primary schools reflects diminishing confidence of the people in government managed schools. These government schools not only lack basic infrastructural facilities, but also bereft of motivation and commitment among the teachers employed in them. Hence, households, having higher income and educational levels, prefer to admit their children in private schools, where they (parents) seem to be perceived that their child would be imparted qualitatively better education. The state government must follow, without undermining their role in enrolling students who might otherwise be out of schools, the liberal but strict public policy to enlist these unrecognized schools so that these could be brought to some kind of checks and controls, and also enable the state to find the 'missing but prized students' not included in the educational data base of the state

Fifth, after the family, school is, indeed, considered to be one of the main agencies of learning process and socialization of a child. Arguably, the first prerequisite of schooling is availability of good quality and attractive infrastructure in each school for imparting education. Hence, a school must be attractive in terms its environment. However, the data, in Table 12, do not point out a very positive picture of the infrastructural facilities available in the schools of Punjab. On the whole, there are 1153 schools (6.18 per cent) without their own buildings, 6761 schools (36.23 per cent) without the boundary wall, 7976 schools (42.74 per cent) without the playgrounds and 13179 schools (70.62 per cent) without the facility of toilets for children. Although lacks of infrastructural facilities such as buildings, playgrounds, toilets, etc. are more pronounced in the primary and middle schools, yet there are many high and senior secondary schools bereft of these facilities. Still, about 8 per cent of high schools did not have their own buildings, 27.28 per cent require boundary walls, 29.40 per cent playgrounds and 37.04 per cent toilets. Similarly, at the senior secondary education level, 4.34 per cent schools are without own buildings, 20.02 per cent have no boundary walls, 21.83 per cent lack playgrounds and 26.18 per cent without toilets. Intriguingly, at the senior secondary level where the

children are grown-up and need to have privacy, there are no proper separate toilets for girls in a sufficiently large number of schools.

TABLE 12
Distribution of Number of Schools Lacking Infrastructural Facilities in Punjab by School Level, 1999

School Level	*Schools Lacking Infrastructural Facility*					*Total Schools*
	Buildings	*Verandas*	*Boundary Walls*	*Play-grounds*	*Toilets*	
Primary	676 (4.91)	3780 (27.45)	4995 (36.28)	6147 (44.64)	10770 (78.22)	13769
Middle	303 (12.97)	1107 (47.39)	1120 (47.95)	1140 (48.80)	1552 (66.44)	2336
High	138 (7.99)	545 (31.54)	480 (27.78)	508 (29.40)	640 (37.04)	1728
Senior Secondary	36 (4.34)	186 (22.44)	166 (20.02)	181 (21.83)	217 (26.18)	829
Total	1153 (6.18)	5618 (30.10)	6761 (36.23)	7976 (42.74)	13179 (70.62)	18662

Note: 1. Total number of schools also includes the functional schools.
2. Figures in parentheses are percentage shares to the respective total schools.
Source: Office of DPI (School), Government of Punjab, Chandigarh

Further, the information collected by the Directorate of School Education in Punjab too reveals that 60 per cent of the primary schools and 58 per cent of the middle schools require additional classrooms. Moreover, 69 per cent of the high and 73 per cent of the senior secondary schools too are facing shortage of classrooms, despite a programme for the construction of more classrooms, to the extent these were deficient, was declared as a major target in the National Policy on Education 1986. The estimated numbers of additional classrooms required are 18002 at the primary level, 4150 at the middle level, 4091 at the high and 3239 at the senior secondary level. Besides, there are also shortage of such basic necessities in the schools as chalks, dusters and blackboards, what to speak of furniture i.e. desk, bench, chair or even a mat for rural students. The data speak volumes about the worst state of infrastructure in government schools in Punjab (Punjab Development Report, 2003).

Sixth, apart form the shortage of physical inputs, there are many glaring deficiencies in Punjab's school education that have adversely affected both the quality of education and the creativity of students. Important deficiencies among these are: heavy prescribed syllabi, outdated teaching practices, decreased motivation and commitment among teachers, poor governance and supervisory mechanism, absenteeism among rurally posted teachers, shortage of teachers, low income and education levels of parents, etc. The present mode of school teaching/learning is a matter of great concern when one

views that more than 90 per cent of children of the primary school age group (6-11 years) have ever been recognized primary schools, and only 58 per cent appear for the matriculation examination in the state. However, the pass percentage in 10th standard public examination is less than one-half (49.17 per cent) for the regular students and one-third (33.52 per cent) for the private students (Table 13). Moreover, pass percentages have deteriorated over the years, despite the practice of awarding more grace marks to jack up the pass percentage every year, both among the regular as well as private candidates (The Tribune, December 08, 2004). In fact, low examination results at the matriculation level clearly indicate the weaknesses in imparting the education and understanding of the subjects among the students. It is a direct manifestation of the low quality teaching in their schools. Otherwise, how could one explain nearly 50 per cent failure rate in PSEB's matriculation examination? Since the state and parents have invested a huge amount of money, at least, for a period of 10 years in the education of children, the low success rate in matriculation examination is again an expression of the failure of entire education system in the state.

TABLE 13

Distribution of Number of Students Appeared and Passed in Matriculation Examination in Punjab, 1998-2001

Year	*Regular Students*			*Private Students*		
	Appeared	*Passed*	*Pass Percentage*	*Appeared*	*Passed*	*Pass Percentage*
1998	284,456	187,613	65.96	58,545	24,430	41.73
1999	274,275	134,858	49.17	76,665	31,828	41.52
2000	307,949	161,824	52.55	84,999	33,972	39.97
2001	272,465	133,996	49.18	100,968	33,854	33.53

Note: Data relate to Punjab School Education Board only.
Source: Office of Chairman, Punjab School Education Board, SAS Nagar (Mohali)

In a nutshell, the severe shortage of infrastructural facilities in Punjab schools (in the form of buildings, play grounds, basic amenities, furniture's, blackboards) and other deficiencies (in the form of heavy prescribed syllabi, outdated teaching practices, decreased motivation and commitment among teachers, poor governance and supervisory mechanism, absenteeism among rurally posted teachers, shortage of teachers, low income and education levels of parents, etc.), particularly in rural government schools put a question mark on the quality of rural education. It is now a high time that state must adhere to the focused priority towards school education by providing or upgrading good quality infrastructural as well as utilizing optimally the existing facilities in the schools. All these require a greater amount of financial resources, strong political will and positive attitude towards benefits of education among the masses.

Public Expenditure on Education

Financing of education has always been a matter of concern. This section focuses exclusively upon the public expenditure component of overall expenditure on education. The term public expenditure on education refers to various types of expenditure routed through education department of the state for developing the educational sector. The expenditure incurred by state government departments, other than education department, for the training of their personnel have been excluded from the analysis, because their resources do not make addition to the resources of education department. The public expenditure on education in the state is examined over the period of 22 years, i.e. from 1980-81 to 2001-02. This period is further divided into two equal intervals (eleven years), i.e. 1st sub-period (1980-81 to 1990-91) and 2nd sub-period (1991-92 to 2001-02). The division of period corresponds to pre and post-economic reforms.

Public Expenditure Levels

Table 14 presents the public expenditure on revenue account incurred by the Department of Education on secondary education and education (overall) in terms of plan and non-plan break up at current prices. For education (overall), the total amount of public expenditure has increased from Rs. 137.17 crore during 1980-81 to Rs. 2174.12 crore during 2001-02. The plan expenditure has increased from Rs. 5.84 crore to Rs. 276.89 crore, and non-plan expenditure has increased from Rs. 131.33 crore to Rs. 1897.23 crore, during the corresponding years. Similarly, for secondary education, the public expenditure has increased from Rs. 66.30 crore during 1980-81 to Rs. 1250.69 crore during 2001-02. The plan expenditure has increased from Rs. 3.47 crore to Rs. 264.41 crore and non-plan expenditure has increased from Rs. 62.83 crore to Rs. 1004.28 crore, during the corresponding years. The table also provides the sub-period expenditure levels of the variables under scrutiny. The comparison of sub-period expenditure levels proves useful in understanding the behaviour of educational spending. For education (overall), during the 1st sub-period (1980-81 to 1990-91) the average annual expenditure turned out to be Rs. 275.63 crore, whereas during the 2nd sub-period its level was Rs. 1219.25 crore. Thus, thereby, implying 4.42 times higher expenditure level during the 2nd sub-period over 1st sub-period. For secondary education, the average annual expenditure during the 1st sub-period was Rs. 135.65 crore as compared to Rs. 660.86 crore during the 2nd sub periods, implying 4.87 times higher level of expenditure. Plan and non-plan analysis indicates that in case of education (overall), the share of plan expenditure in total expenditure increased from 5.12 per cent to 11.46 per cent and that of non-plan expenditure decreased from 94.88 per cent to 88.54 per cent, respectively from 1st sub-period to 2nd sub-period. For secondary education, the share of plan expenditure in total expenditure of secondary education, increased from 6.86 per cent to 16.98 per cent and that of non-plan decreased from 93.14 per cent to 83.02 per cent, respectively from 1st sub-period to 2nd sub-period.

Inter-Sectoral Allocations

The distribution of public expenditure on education among the various categories of education, i.e. elementary education, secondary education, technical education, university and higher education, and 'others' is depicted in Table 15. The 'others' include adult education, general education programmes, languages development and physical education, etc. It is clear that the share of elementary education in public educational expenditure (overall) declined persistently during the study period. It declined from 37.21 per cent during 1980-81, to 32.55 per cent during 1990-91, and to 30.47 during 2001-02. Similarly, the university and higher education and the category named 'others' also experienced a decline in their respective shares in educational expenditure (overall).

TABLE 14

Public Expenditure on Education in Punjab (Through Department of Education)

Rs. in Crore (Revenue Account) (Current Prices)

Year	Secondary Education			Education (overall)		
	Plan	Non-plan	Total	Plan	Non-plan	Total
1980-81	3.47	62.83	66.30	5.84	131.33	137.17
1981-82	5.71	62.45	68.16	8.42	135.33	143.75
1982-83	7.38	73.49	80.87	9.55	153.31	162.86
1983-84	10.16	82.08	92.24	12.36	175.16	187.52
1984-85	11.65	90.19	101.84	14.88	196.30	211.18
1985-86	2.66	110.16	112.82	5.25	227.94	233.19
1986-87	2.50	115.73	118.23	6.61	244.06	250.67
1987-88	8.99	149.56	158.55	16.75	306.33	323.08
1988-89	12.45	174.02	186.47	20.00	354.10	374.10
1989-90	25.50	233.54	259.04	38.62	471.11	509.73
1990-91	11.90	235.69	247.59	16.97	481.75	498.69
1991-92	15.48	268.59	284.07	24.76	528.55	553.31
1992-93	42.05	292.43	334.48	68.53	589.40	657.93
1993-94	64.49	267.64	332.13	98.16	588.76	686.92
1994-95	43.68	323.06	366.74	57.54	658.85	716.39
1995-96	46.97	379.98	426.95	82.32	801.37	883.69
1996-97	78.77	465.67	544.44	112.02	908.39	1020.41
1997-98	110.86	614.27	725.13	130.14	1137.73	1267.87
1998-99	206.07	734.74	940.81	230.68	1445.01	1675.69
1999-00	179.17	739.95	919.12	217.61	1501.69	1719.30
2000-01 R.E.	200.72	944.19	1144.91	238.39	1817.72	2056.11
2001-02 B.E.	246.41	1004.28	1250.69	276.89	1897.23	2174.12
Total, 1st Sub-Period	102.37	1389.74	1492.11	155.25	2876.69	3031.94
(1980-81 to 1990-91)	(6.86)	(93.14)	(100)	(5.12)	(94.88)	(100)
Total, 2nd Sub-Period	1234.67	6034.80	7269.47	1537.04	11874.70	13411.74
(1991-92 to 2001-02)	(16.98)	(83.02)	(100)	(11.46)	(88.54)	(100)
Average,annual (1st Sub-period)	9.31	126.34	135.65	14.11	261.52	275.63
Average, annual (2nd Sub-Period)	112.24	548.62	660.86	139.73	1079.52	1219.25
Ratio (2nd sub-period over 1st)	12.06	4.34	4.87	9.90	4.13	4.42

Source: *Analysis of Budgeted Expenditure on Education*, MHRD, New Delhi, various issues.

TABLE 15

Share of Different Categories of Education in Overall Educational Expenditure (Plan plus Non-Plan) *(percentage) (Revenue Account)*

Year	*Ele. Edu.*	*Sec. Edu.*	*Tec. Edu.*	*U.H. Edu.*	*Others*	*Total*
1980-81	37.21	48.33	1.08	10.13	3.24	100
1981-82	34.46	47.42	1.31	12.69	4.13	100
1982-83	33.59	49.66	1.31	11.57	3.87	100
1983-84	33.52	49.19	1.29	12.70	3.30	100
1984-85	33.52	48.22	1.23	13.73	3.31	100
1985-86	34.33	48.38	1.30	13.02	2.97	100
1986-87	32.94	47.17	1.65	14.27	3.98	100
1987-88	33.10	49.07	1.09	15.13	1.61	100
1988-89	31.30	49.84	1.28	16.11	1.47	100
1989-90	33.67	50.82	0.96	13.17	1.38	100
1990-91	32.55	49.65	1.78	14.48	1.54	100
1991-92	30.45	51.34	2.70	14.33	1.17	100
1992-93	31.93	50.84	2.88	13.16	1.19	100
1993-94	34.62	48.35	2.53	13.23	1.27	100
1994-95	31.55	51.19	1.38	14.65	1.22	100
1995-96	33.38	48.31	2.13	13.70	2.47	100
1996-97	30.51	53.36	2.95	12.13	1.06	100
1997-98	28.77	57.19	2.35	10.72	0.97	100
1998-99	30.25	56.14	2.91	9.75	0.94	100
1999-00	30.19	53.46	3.23	12.31	0.81	100
2000-01 R.E.	30.58	55.68	2.63	10.31	0.81	100
2001-02 B.E.	30.47	57.53	2.15	9.10	0.75	100
1st Sub-Period (1980-81 to 1990-91)	33.65	48.89	1.30	13.36	2.80	100
2nd Sub-Period (1991-92 to 2001-02)	31.15	53.04	2.53	12.13	1.15	100
Entire Period (1980-81 to 2001-02)	32.40	50.96	1.91	12.75	1.98	100

Source: Same as in Table 14.

Whereas, the secondary education and technical education witnessed a rise in their respective share in educational expenditure, about a half of educational expenditure has been consumed by the secondary education alone. Inter-period comparison indicates that during the 1st sub-period (1980-81 to 1990-91) the average annual share of secondary education was 48.89 per cent, and it rose to 53.04 per cent during 2nd sub-period. Similarly, the share of technical education increased from 1.30 per cent to 2.53 per cent during the corresponding periods. The share of elementary education declined from 33.65 per cent to 31.15 per cent, university and higher education from 13.36 per cent to 12.13 per cent, and that of 'others' from 2.80 per cent to 1.15 per cent from 1st sub-period to 2nd sub-period

Educational Expenditure and State Budget

The priority accorded by the state to the development of education could be ascertained by examining the proportion of budget allocated to the education sector. The shares of various categories of education in the state budgets are given in Table 16. The share of education-budget in state's overall budgetary expenditure declined considerably during the study periods. It declined noticeably from 24.96 per cent in 1980-81 to 16.14 per cent during 2001-02. The decline in budgetary expenditure on education resulted in decline in share of all categories of educational budgets in general state budget. The share of elementary education declined from 9.29 to 4.92 per cent, secondary education from 12.06 to 9.29 per cent, university and higher education from 2.53 to 1.47 per cent and 'others' from 0.81 to 0.12 per cent, from 1980-81 to 2001-02, respectively.

TABLE 16

Share of Different Categories of Education in State Budget in Punjab (Plan plus Non-plan) *(percentage) (Revenue Account)*

Year	*Ele. Edu.*	*Sec. Edu.*	*Tec. Edu.*	*U.H. Edu.*	*Others*	*Overall*
1980-81	9.29	12.06	0.27	2.53	0.81	24.96
1981-82	7.99	10.99	0.30	2.94	0.96	23.19
1982-83	8.00	11.83	0.31	2.76	0.92	23.83
1983-84	7.67	11.25	0.29	2.91	0.76	22.87
1984-85	7.52	10.82	0.28	3.08	0.74	22.43
1985-86	6.88	9.70	0.26	2.61	0.60	20.05
1986-87	6.87	9.84	0.34	2.97	0.83	20.85
1987-88	6.55	9.71	0.22	2.99	0.32	19.78
1988-89	6.27	9.99	0.26	3.23	0.29	20.03
1989-90	8.49	12.82	0.24	3.32	0.35	25.22
1990-91	6.44	9.83	0.35	2.86	0.31	19.79
1991-92	4.02	6.77	0.36	1.89	0.15	13.18
1992-93	6.34	10.09	0.57	2.61	0.24	19.85
1993-94	5.94	8.30	0.43	2.27	0.22	17.17
1994-95	3.74	6.07	0.16	1.74	0.14	11.86
1995-96	5.24	7.58	0.33	2.15	0.39	15.68
1996-97	4.50	7.86	0.43	1.79	0.16	14.73
1997-98	4.66	9.25	0.38	1.73	0.16	16.18
1998-99	6.05	11.22	0.58	1.95	0.19	19.99
1999-00	5.09	9.02	0.54	2.08	0.14	16.86
2000-01 R.E.	5.37	9.77	0.46	1.81	0.14	17.55
2001-02 B.E.	4.92	9.29	0.35	1.47	0.12	16.14
1st Sub-Period (1980-81 to 1990-91)	7.45	10.80	0.28	2.93	0.63	22.09
2nd Sub-Period (1991-92 to 2001-02)	5.08	8.66	0.42	1.95	0.19	16.29
Entire Period (1980-81 to 2001-02)	6.26	9.73	0.35	2.44	0.41	19.19

Source: Same as in Table 14.

Inter-sub period comparison reveals that the non-educational sector, over the period, got prominence in public spending in the state. The educational sector experienced decline in its weight in attracting resources from the public exchequer. The share of education (overall) expenditure in state's budgetary expenditure declined from 22.09 to 16.29 per cent respectively from 1st sub-period to 2nd sub-period. Similarly, during the corresponding periods, the share of other categories of education declined as follows: elementary education (from 7.45 to 5.08 per cent), university and higher education (from 2.93 to 1.95 per cent), and 'others' (from 0.63 to 0.19 per cent). However, the technical education improved its share marginally from 0.28 to 0.42 per cent.

Educational Expenditure and State Income

The economic growth is highly dependent upon the quality and quantum of human resources. The state income in turn determines the human resource development capacity of a society. The proportion of income transferred to education through the medium of public spending shed much light on the developmental priorities in any society.

From Table 17, it is clear that the share of educational budget in state income hovers between 2.35 per cent to 3.51 per cent during the study period. The share of educational budget in state income had experienced wider variations. Out of 22 years of study period, the share of educational budget in state income remained less than three per cent for 15 years. For four years continuously (i.e. 1998-99, 1999-2000, 2000-01 and 2001-02), the educational sector received resources more than three per cent of state income. Moreover, on an average basis (i.e. from 1980-81 to 2001-02), the share of educational budget in state income was 2.93 per cent. This share was half of the recommended level of 6 per cent by various fora. The inter-sub period comparison further demonstrates that the average share of educational budget during the 2nd sub-period, (1991-92 to 2001-02) declined to 2.91 per cent as compared to 2.94 per cent of the 1st sub-period (i.e. 1980-81 to 1990-91). Similarly, the average shares of elementary education, university and higher education and that of 'others' also declined in the 2nd sub-period. However, secondary education and technical education improved their respective average shares marginally.

Educational Expenditure: Per Student

Per student educational expenditure, on secondary education, both at current and real prices is given in Table 18. Real prices have been worked out by using NSDP deflator with base of 1993-94 prices. Per-student expenditure at current prices, with wider yearly variations, has increased from Rs. 2262.80 during 1980-81 to Rs. 14602.45 during 2001-02. Thus, at current prices, its level was six and a half times to that of its level in 1980-81. However, at real prices, per student spending on secondary education just increased marginally from Rs. 7084.53 during 1980-81 to Rs. 8684.18 during 1990-91. Thus, in real prices its level was 1.23 times to that of its level in 1980-81. Further, it is to be noted that at real prices, per student spending remained lower for twelve years than that of its base year level of Rs. 7084.53. During 1st sub-period, per student average annual spending was Rs. 3344.87. It rose to Rs. 8823.18 during 2nd sub-period, indicating 2.64

times increase. The inter-period comparison reveals that average annual spending during 1st sub-period was Rs. 6977.51, at real prices. During 2nd sub-period, its average level declined to Rs. 6695.19 implying thereby, that per student spending at real prices during 2nd sub-period was 0.96 to its level of 1st sub-period.

TABLE 17

Share of Different Categories of Education in State Income in Punjab (Plan plus Non-plan) *(percentage)*

Year	*Ele. Edu.*	*Sec. Edu.*	*Tec. Edu.*	*U.H. Edu.*	*Others*	*Overall*
1980-81	1.15	1.49	0.03	0.31	0.10	3.08
1981-82	0.95	1.30	0.04	035	0.11	2.74
1982-83	0.94	1.39	0.04	0.32	0.11	2.80
1983-84	0.98	1.44	0.04	0.37	0.10	2.93
1984-85	0.97	1.39	0.04	0.40	0.10	2.89
1985-86	0.96	1.36	0.04	0.37	0.08	2.80
1986-87	0.90	1.28	0.04	0.39	0.11	2.72
1987-88	0.99	1.47	0.03	0.45	0.05	3.00
1988-89	0.93	1.49	0.04	0.48	0.04	2.98
1989-90	1.14	1.72	0.03	0.45	0.05	3.39
1990-91	0.97	1.48	0.05	0.43	0.05	2.97
1991-92	0.83	1.40	0.07	0.39	0.03	2.73
1992-93	0.90	1.43	0.08	0.37	0.03	2.81
1993-94	0.88	1.23	0.06	0.34	0.03	2.54
1994-95	0.74	1.20	0.03	0.34	0.03	2.35
1995-96	0.86	1.25	0.06	0.35	0.06	2.58
1996-97	0.80	1.39	0.08	0.32	0.03	2.61
1997-98	0.85	1.68	0.07	0.32	0.03	2.94
1998-99	1.02	1.90	0.10	0.33	0.03	3.38
1999-00	0.95	1.69	0.10	0.39	0.03	3.16
2000-01 R.E.	1.07	1.95	0.09	0.36	0.03	3.51
2001-02 B.E.	1.05	1.99	0.07	0.31	0.03	3.45
1st Sub-Period (1980-81 to 1990-91)	0.99	1.44	0.04	0.39	0.08	2.94
2nd Sub-Period (1991-92 to 2001-02)	0.90	1.56	0.07	0.35	0.03	2.91
Entire Period (1980-81 to 2001-02)	0.95	1.50	0.06	0.37	0.11	2.93

Source: Same as in Table 14

TABLE 18

Per Student Public Expenditure on Secondary Education in Punjab (Revenue Account)

(Rupee)

Year	*Real*	*Current*	*Index (Real)*	*Index (Current)*
1980-81	7084.53	2262.80	100.00	100.00
1981-82	6508.98	2249.50	91.88	99.41
1982-83	6890.62	2559.18	97.26	113.10
1983-84	7047.81	2838.15	99.48	125.43
1984-85	7286.79	3114.37	102.85	137.63
1985-86	7294.83	3300.18	102.97	145.84
1986-87	6695.01	3226.33	94.50	142.58
1987-88	7916.04	4257.24	111.74	188.14
1988-89	6959.03	4096.78	98.23	181.05
1989-90	7365.81	4815.77	103.97	212.82
1990-91	5703.19	4073.22	80.50	180.01
1991-92	5381.70	4431.83	75.96	195.86
1992-93	5834.30	5318.54	82.35	235.04
1993-94	5420.84	5420.84	76.52	239.56
1994-95	5404.85	5934.53	76.29	262.26
1995-96	5631.43	6697.47	79.49	295.98
1996-97	6193.33	7842.00	87.42	346.56
1997-98	7406.15	10060.52	104.54	444.60
1998-99	8158.97	12109.55	115.17	535.16
1999-00	7149.93	11089.54	100.92	490.08
2000-01 R.E.	8381.41	13547.71	118.31	598.71
2001-02 B.E.	8684.18	14602.45	122.58	645.33
1st Sub-Period (1980-81 to 1990-91)	6977.51	3344.87		
2nd Sub-Period (1991-92 to 2001-02)	6695.19	8823.18		

Source: Same as in Table 14 and *Statistical Abstract of Punjab*, (various issues), Chandigarh

Educational Expenditure: Relative Growth Rates

The magnitude and growth of public educational expenditure in Punjab are likely to work within the overall structure of budgetary spending. The yearly allocations and inflationary pressures together influence the real observed growth of variables. Table 19 reports in a comparable manner the annual trend growth rate of four variables, i.e., per student secondary education spending, secondary education spending, as such, educational spending (overall), and state budgetary spending – all at real prices. It also reports the growth of students in secondary level of education. The growth rates have been reported separately for the sub-periods and the entire period. The perusal of data shows that during entire period (1980-81 to 2001-02), the education sector (overall), at real prices, had recorded lower growth (5.24 per cent) than that of the growth of state budgetary expenditure (7.53 per cent). It means, on comparative basis, lower resources were

directed towards the education sector from state budgetary resources. This establishes that the education sector, during the study period, remained away from the core-spending priorities of the state. Within education sector, the secondary education experienced comparatively higher growth than that of the growth of educational sector (overall). Moreover, it had happened for all of the time durations under study. For example, during 1st sub-period (1980-81 to 1990-91), the growth rate of secondary education and the education sector (overall) were 6.5 per cent and 6.20 per cent, respectively. During 2nd sub-period, the corresponding growth rates were 9.41 per cent and 7.81 per cent. And, over entire period, the secondary education grew by 6.06 per cent and the education sector (overall) by 5.24 percent. Thus, within education sector, the secondary education experienced better growth of financial resources and occupied the priority position during all time durations.

The combined analysis of data given in Table 18 along with Table 19 highlights certain diverse types of trends regarding the real price behavior of public expenditure on secondary education on per-student basis. As already stated, for this sector (i.e. secondary education) the average level of expenditure during 2nd sub-period (Rs 6695.19) was lower than that of its level during 1st sub-period (Rs. 6977.51). The notice worthy fact is that during 2nd sub-period, for this education sector the expenditure had recorded substantially higher growth (9.41 per cent) than that of the growth of enrollment (3.81 per cent). But, in contrast to this, during 1st sub-period, the growth of enrolment (6.98 per cent) was more than the growth of expenditure (6.58 per cent). Furthermore, the 2nd sub-period witnessed higher growth of resources than that of its proceeding period. And, 1st sub-period witnessed higher growth of enrollment than that of its succeeding period. In this way, from the angle of per student expenditure, the second sub-period experienced more favorable combination of trends of expenditure and enrolment than that of 1st sub-period. However, such a combination was not that strong which could have resulted into raising the per student average level of expenditure during 2nd sub-period over 1st sub-period. The effectiveness of such a combination is reduced because of substantial change in the number of students during the two time durations. In fact, 1st sub-period witnessed the addition of one more class at the secondary level with introduction of 10 +2 system of education after the mid eighties. This has generated higher level of growth rate of enrollment during 1st sub-period. However, in 2nd sub-period, the number of classes remained same within secondary education which resulted into comparatively lower growth rate of enrollment. The addition of one more class has considerably increased the number of students during 2nd sub-period. For example, the average number of students (7,14,579) during 2nd sub-period was 1.85 times more than that of the average number of students (3,85,968) during 1st sub-period. It has resulted into comparatively lower average level of expenditure during 2nd sub-period over 1st sub-period.

Thus, comparatively higher growth of absolute expenditure on secondary education, during 2nd sub-period, both temporally and also in relation to enrolment, could not generate higher average level of per-student expenditure because of absolutely large number of students during this period. Hence, more growth of resources on continuous

basis (than that of 2nd sub-period) during current decade of 21st century could restore the per student real average level of resources actually achieved during 1st sub-period.

TABLE 19

Growth of Certain Variables

Period		*Secondary Education (per student) (Real)*	*Secondary Education (Real)*	*Overall Education (Real)*	*State Budgetary Expenditure (Real)*	*Students (Secondary Education)*
(a)	1980-81 to 1990-91	-0.37	6.58	6.20	7.86	6.98
(b)	1991-92 to 2001-02	5.39	9.41	7.84	6.34	3.81
(c)	1980-81 to 2001-02	0.23	6.06	5.24	7.53	5.81

Note: Real growths has been worked out by using NSDP deflator with 1993-94 = 100

Financing of Secondary Education

Institutional structures of public education in the state is very complex, over-lapping and heterogeneous .The educational institutions in Punjab and elsewhere are quite diverse in terms of ownership, management, affiliation, financing, staffing and study-streams, etc. Basically as per education level, there are four types of schools in operation in Punjab, i.e. primary, middle, high and senior secondary. The primary schools and middle schools are independent units and they admit the students for their respective levels only. However, the high and senior secondary schools have over-lapping levels. The high schools contain simultaneously the middle and high levels of education. The senior secondary school has simultaneously three levels, i.e., middle, high and senior secondary.

In the state of Punjab, no educational institution corresponds truly to the secondary level of education, i.e. from 9-12 classes (or 14-17 years age group). The secondary schools in the state do not function as separate or independent units in terms of physical location, administration, financing, staff-deployment, class levels, etc. The secondary level classes (9-12 standards) exist in much type of institutions operating in the same premises. During the survey , it has been noticed that in terms of number of classes, the high and senior secondary schools demonstrate different class patterns, viz. high schools (9-10 class), high school (6-10 class), high school (1-10 class), senior secondary school (1-12 class), senior secondary school (6-12 class) , and high school (nursery-10 class). There has been no uniformity in terms of classes at the pre-primary level as well as the secondary level. Further, most of the senior secondary school, particularly in rural areas serves only the arts stream for the senior secondary classes. Limited number of schools serve at the senior secondary level all the four streams, i.e. arts, science, commerce and

vocational. In the state, the senior secondary classes, particularly of science and commerce streams also exist in the degree colleges. This type of institutional structure poses innumerous problems in the study of financing of secondary educational exclusively.

Sampling and Data

Keeping in view the fragmented structure of secondary education in the state, it has been decided to examine in detail the financing practices of secondary education for one district. The district of Patiala has been chosen purposively. Apart from convenience of data collection, this district represents quite faithfully the literacy mark of the state. As per Census-2001, the literacy rate of district of Patiala and that of state of Punjab were same, viz. 69.96 per cent and 69.95 per cent respectively. Further, out of 17 districts of state, according to literacy rate ordering, the position of district of Patiala corresponds to 'unique median' of statistics. The district-wise literacy rate of state ranges from 50.67 percent to 81.40 percent. In 2001, the district of Patiala consists of 7.43 per cent of state's student population, 6.79 per cent of high school, and 7.11 per cent of senior secondary schools. Moreover, financing practices are decided by the government for the entire state and are uniformly implemented in all the districts.

The schools within the district of Patiala have been chosen by four-stage stratified random sampling. The process of selection of schools started with the focus on 10^{th} class, as being the core class, of secondary education. The data for sampling frame has been collected from three sources. *First*, the data are taken from the 10^{th} class 'Result-Gazette' of the Patiala district published by the state education board, i.e. Punjab School Education Board (PSEB), of March 2002. It provides the school-wise number of students that appeared in the 10^{th} class both for high and senior secondary schools for all the government schools and private recognized schools affiliated to PSEB. *Second*, the list of private school affiliated to CBSE. In Patiala district has been prepared from the list of schools released by the Regional Office of CBSE., Chandigarh, on 16 April, 2003. *Third*, the list of aided schools, all of which are affiliated to PSEB in the state, was procured from the Office of District Education Officer, Patiala.

This mechanism generated the list of all the high and senior secondary schools of the Patiala district. The analysis has been confined to these schools. In the whole state, no school is being run by local bodies. The senior secondary classes are also being run in degree colleges in Punjab, but they are not included in the sample. Moreover, there are three schools affiliated to CISCE in the district and has been excluded from the analysis. At the first stage, stratification of schools is done in terms of management, viz. government schools, government aided schools and private unaided schools. The private schools have been further divided into two categories, i.e. private school affiliated to PSEB, and private school affiliated to CBSE. Second stage of stratification follows in terms of type of school, i.e. high and senior secondary. So each management category got divided into two sub-categories on the basis of type of school. At the third stage, stratification of schools occurred on the basis of location, i.e. rural and urban. The

resultant categories have further been divided according to number of students at the fourth stage of stratification. Table 20 provides the complete picture of stratification including selection of schools at random from the ultimate categories of schools affiliated to PSEB/CBSE. Thus, 16 schools in total, 14 schools from PSEB affiliation and 2 from CBSE affiliation, were selected.

TABLE 20

Distribution of Schools in Patiala District (Affiliated to PSEB)

Sr. No.	*No. of Students*	*Government Schools*				*Aided Schools*				*Private Schools*			
		High		*SS*		*High*		*SS*		*High*		*SS*	
		R	U	R	U	R	U	R	U	R	U	R	U
1.	Upto 20	3	0	0	0	0	0	0	0	6*	12*	0	0
2.	21-40	16*	2	2	0	0	5	0	1	3	20*	1	0
3.	41-60	22*	2	26*	2	0	0	0	0	1	12*	0	1
4.	61-80	20*	1	15*	3	0	2	0	0	0	5	0	1
5.	81-100	8	2*	9*	3	0	2	0	1	0	3	0	2
6.	101-120	3	1	5	3	0	0	0	2*	0	3	0	0
7.	121-140	1	1	3	2	0	0	0	4	0	2	0	2
8.	141-160	0	0	2	1	0	0	0	0	0	0	0	0
9.	161+	0	1	3	7*	0	1	0	0	0	2	0	4*
	Schools selected	3	1	3	1	0	0	0	1	1	3	0	1

R-Rural, U-Urban, SS-Senior Secondary

Note: * stands for school-clusters from which a school has been selected at random.

Source: *Result Gazette*, Class X, March 2002, PSEB, Mohali.

The data from these selected schools were collected through a pre-tested questionnaire. The selected schools have provided relevant data from two sources. First, data related to students were collected from the students' return proforma, which the schools submit every year to the government about students' enrollment on 30th September. Second, the economic data have been collected by using the financial data submitted in the form of balance sheets by the schools to the government department annually. Data related to fees and funds collected from students and staffing pattern have been provided by the schools by using the ledger books and other related documents.

Sampled Schools: Prominent Characteristics

Financing patterns of educational institutions depend upon management, location, number of classes, etc. in the schools. Out of 16-sampled schools, seven were situated in rural areas and nine in urban areas. Senior secondary schools are of two types, i.e. 1-12 classes and 6-12 classes. Out of seven senior secondary schools, only two schools have all the four streams, i.e. arts, science, commerce, and vocational. Three senior secondary schools offer only the arts stream and two schools offer both the arts and commerce. Five

senior secondary schools were government schools, one aided school and one unaided school (affiliated to PSEB.). No private senior secondary school was affiliated to CBSE. in the district. In case of high schools, out of nine schools, three were situated in rural areas and six in urban areas. Out of nine high schools, seven schools consist of 1-10 classes; two schools have 6-10 classes. Out of seven high schools consisting of 1-10 classes, two schools have Nursery class only, one school has Nursery and L.K.G. classes, one school has L.K.G. and U.K.G. classes, three schools have Nursery, L.K.G. and U.K.G. classes (Table 21).

TABLE 21

Distribution of Sampled Schools by Management and Location

Class	*Govt. Schools*	*Aided Schools*	*Un-aided Schools (PSEB)*	*Un-aided Schools (CBSE)*	*Total*	*Rural*	*Urban*
1-10	1	0	4	2	7	1	6
1-12	0	1	1	0	2	0	2
6-10	2	0	0	0	2	2	0
6-12	5	0	0	0	5	4	1
Total	8	1	5	2	16	7	9

Source: Primary Survey.

Table 22 demonstrates the staffing pattern of the sampled schools. Out of 16 sampled schools, five were without the Principals. This was actually the case of government schools, situated in rural areas. In case of teachers in government schools, 21 posts were vacant, 15 in rural schools and 6 in urban schools. In case of aided and private schools, no post of teacher was vacant. Moreover, in government schools, 12 posts of teachers were shifted from rural areas to urban area schools. In all, of the four management categories, 25 teachers were working on non-permanent basis. The effective strength of teachers (permanent and non-permanent) worked out to be 515. The schools in total consisted of 155 members of non-teaching staff. The total working strength of staff members was 681 among the sampled schools.

The pass percentage and division of pass outs from the terminal class (tenth class) can be a good indicator of quality of teaching and learning achievements of students in schools. Table 23 provides data regarding the annual examination results of different categories of schools. In fact, there is no comparison of the results of private schools and that of government and government aided schools. The proportion of 1st division holders

(between 70.34 to 82.18 per cent) in private schools was substantial higher than that of government and government aided schools (between 6.80 to 9.58 per cent). Moreover, the proportion of failed students (20.90 to 29.13 per cent) was very high in government and government aided schools, whereas the proportion of such students was nil in private schools. Further, the score of topper was also much higher in private schools as compared to their counterpart in the government schools. Similarly, there are wide variations in pass percentages in rural vis-à-vis urban schools. The comparison of results indicates towards the phenomenon of privatization of quality education.

TABLE 22

Position of Staff-Strength in Sampled Schools by Management and Location

		Principal			*Teachers*			*Non-teaching*			
		Sanctioned	*Filled*	*Vacant*	*Sanctioned*	*Filled*	*Vacant*	*Shifted*	*Non-Regular*	*Filled*	*Working Strength*
1.	Government	8	3	5	252	231	21	12	4	73	311
2.	Aided	1	1	0	23	23	0	0	5	7	36
3.	Non-aided (PSEB)	5	5	0	154	154	0	0	2	51	212
4.	Non-aided (CBSE)	2	2	0	82	82	0	0	14	24	122
5.	Total (1+4) or (a+b)	16	11	5	511	490	21	12	25	155	681
	a. Rural	7	2	5	134	119	15	11	1	37	159
	b. Urban	9	9	0	377	371	6	1	24	118	522

Source: Primary Survey.

TABLE 23
Annual Examination Results of Tenth Class of Sampled Schools, March 2002

Annual Examination Result of X Class	*Govt. Schools*	*Aided Schools*	*Private Unaided Schools (PSEB)*	*Private Unaided Schools (CBSE)*	*Rural*	*Urban*
Appeared	689 (100.00)	103 (100.00)	290 (100.00)	174 (100.00)	319 (100.00)	937 (100.00)
Fail	189 (27.43)	26 (25.54)	1 (0.34)	0	73 (22.88)	143 (15.26)
Reappear	144 (20.90)	30 (29.13)	10 (3.45)	0	56 (17.56)	128 (13.66)
Pass	356 (58.67)	47 (45.63)	279 (96.21)	174 (100)	190 (59.56)	666 (71.08)
3rd Division	157 (22.79)	14 (13.59)	19 (6.55)	9 (5.17)	100 (31.35)	99 (10.57)
2nd Division	137 (19.88)	26 (25.24)	56 (19.31)	22 (12.64)	75 (23.51)	166 (17.72)
1st Division	62 (9.00)	7 (6.80)	204 (70.34)	143 (82.18)	15 (4.70)	40.1 (42.80)
Topper's score (%)	83.85	77.08	88.62	91.00	84.92	91.00

Source: Result Gazettes, PSEB and CBSE for March, 2002.

The distribution of students in the sampled school is given in Table 24. The sampled schools consisted of 13,121 students, with 2963 (22.58 per cent) in rural areas and 10158 (77.42 per cent) in urban areas. Boys constitute 57.88 per cent, and girls 42.12 per cent of the total students. The share of students as per the education level was as follows: pre-primary (7.86 per cent), primary (25.86 per cent), middle (30.03 per cent) high (18.35 per cent) and senior secondary (17.90 per cent). In the sampled schools, there were 515 teachers against 13121 students, hence generating the students-teacher ratio of 26:1.

School Financing

It has emerged from the survey that the financing of schools depends largely upon government finances in the case of government and aided schools and entirely on the fees and funds collected from the students in the case of private unaided schools. Fees and funds are of numerous types, viz. admission fee, tuition fee, amalgamated fund, red cross fund, building fund, sports fund, child welfare fund, health fund, audio-visual fund, cycle fund, magazine fund, identity card fund, house test fund, medical fund (science stream), non-medical fund (non-medical stream), vocational fund, paintings fund, technical fund, and geography fund. Besides, late fee and absentee charges are also collected.

TABLE 24

Number of Overall Students Enrolled in Sampled Schools by Sex and Educational Level

	Education Level	*Total Students*	*Rural*	*Urban*	*Boys*	*Girls*
1.	Pre-primary	1031 (7.86)	15	1016	572	459
2.	Primary (I-V)	3393 (25.86)	84	3309	1960	1433
3.	Middle (VI-VIII)	3940 (30.03)	1264	2676	2208	1732
4.	High (XI-X)	2408 (18.35)	764	1662	1372	1036
5.	Senior Secondary (XI-XII)	2349 (17.90)	854	1495	1483	866
	Total	13121 (100)	2963 (22.58)	10158 (77.42)	7595 (57.88)	5526 (42.12)

Source: Primary Survey

The fees and funds are charged annually, quarterly and on monthly basis, depending upon their nature and use. Further, the schools share some proportion of the funds with the respective state government agencies such as sports department, state examination board and state education department. The rate of these charges is uniform in the government schools however, vary widely in the case of private schools. In case of aided schools, some funds are also being contributed by managing committees in the form of management contribution.

Quantum and Sources of Financing

The analysis of financing of secondary education of the sampled school reveals very peculiar features. Table 25 presents the detailed picture of financing from the angle of management and sources of income. The income sources of sampled school can be clubbed into four main categories, i.e. government grants, fees and funds, special schemes income, voluntary sources' income and management contribution.

During 2002-03, the sampled school had received income worth Rs. 979.87 lakh from all sources. Out of this, government schools received (Rs. 452.90 lakh, 46.22 per cent); aided schools (51.07 lakh, 5.22 per cent); private school affiliated to PSEB (Rs 254.60 Lakh,25.98 percent); and private schools affiliated to CBSE (Rs. 221.30 lakh,22.58 per cent). In terms of composition of income, the share of various sources was as follows: government grants (46.21 per cent), fees and funds (52.10 per cent), special scheme income (0.64 per cent), voluntary sources income (0.86 per cent) and management contribution (0.19 per cent).

TABLE 25

Distribution of Sources of Income of Sampled Schools by Management, 2002-03

(Figures in Rs. Lakh)

Management	*Govt. Grant*	*Fees and Funds*	*Special Scheme Income*	*Voluntary Sources Income*	*Management Contribution*	*Total*
a. Govt. Schools	412.00	31.20	3.55	6.15	0.00	452.90
	(90.97)	(6.89)	(0.78)	(1.36)	(0.00)	(100)
b. Aided Schools	40.78	8.33	0.03	0.03	1.90	51.07
	(79.85)	(16.31)	(0.06)	(0.06)	(3.72)	(100)
c. Unaided (PSEB)	0.00	250.94	1.45	2.21	0.00	254.60
	(0.00)	(98.56)	(0.57)	(0.87)	(0.00)	(100)
d. Unaided (CBSE)	0.00	220.06	1.24	0.00	0.00	221.30
	(0.00)	(99.44)	(0.56)	(0.00)	(0.00)	(100)
Total (a+b+c+d)	452.78	510.53	6.24	8.39	1.90	979.87
	(46.21)	(52.10)	(0.64)	(0.86)	(0.19)	(100)

Source: Primary Survey

For government schools, the government grant consisted of 90.97 per cent of all of their income whereas the share of fees and funds was 6.89 per cent. The share of special scheme income and voluntary sources income was 0.78 per cent and 1.36 per cent respectively. For aided schools, the share of government grant, and fees and funds was 79.85 per cent and 16.31 per cent respectively. While in aided schools the management contribution was 3.72 per cent. The unaided private schools (both PSEB and CBSE affiliated) depended exclusively on fees and funds for their funding. The fees and funds constituted about 99 per cent of their income.

Fees and Funds

Table 26 depicts the detailed picture of fees and funds in terms of class-levels, management-categories and location of schools. The sampled schools collected fees and funds worth Rs. 510.53 lakh during 2002-03. The share at various education-levels in the total fees and funds was as follow: pre-primary (12.36 per cent), primary (35.38 per cent), middle (24.59 per cent) and secondary (27.67 per cent). For government schools the share of total fees and funds at various education levels was as follows: pre-primary (0.58 per cent), primary (5.10 per cent), middle (16.60 per cent) and secondary (77.72 per cent). For aided schools, the class-wise shares in fees and funds were: pre primary (nil), primary (8.78 per cent), middle (35.26 per cent) and secondary (55.96 per cent). In case of unaided schools affiliated to the PSEB, the respective share were 9.90 per cent, 35.55 per cent, 25.42 per cent and 29.13 per cent. In the case of unaided schools affiliated to

CBSE, the respective shares of class-levels were as follow: pre-primary (17.32 per cent), primary (40.48 per cent), middle (24.37 per cent) and secondary (17.83 per cent). The location-wise analysis highlights that, out of total fees and funds collection, Rs. 490.46 lakh (96.09 per cent) originated from urban areas schools and Rs. 20.06 lakh (3.93 per cent) from rural areas schools. This pattern prevails essentially in the case of all class-levels also.

TABLE 26

Sampled Schools' Fees and Funds Collection by Management, Location and Education Level

(Rs. Lakh)

	Level	*Govt. Schools*	*Aided Schools*	*Un-aided Schools (PSEB)*	*Un-aided Schools (CBSE)*	*Total*	*Rural*	*Urban*
		1	2	3	4	5 = (1+2+3+4) or 5=(6+7)	6	7
1.	Pre-primary	0.18	0.00	24.84	38.11	63.12	0.16	62.96
		(0.58)	(0.00)	(9.90)	(17.32)	(12.36)		
2.	Primary	1.59	0.73	89.21	89.09	180.63	1.18	179.45
		(5.10)	(8.78)	(35.55)	(40.48)	(35.38)		
3.	Middle	5.18	2.93	63.80	53.62	125.54	3.67	121.87
		(16.60)	(35.26)	(25.42)	(24.37)	(24.59)		
4.	Secondary	24.24	4.65	73.09	39.24	141.23	15.05	126.18
		(77.72)	(55.96)	(29.13)	(17.83)	(27.67)		
	Total	31.19	8.31	250.94	220.06	510.53	20.06	490.46
		(100)	(100)	(100)	(100)	(100)		

Note: 1. Fee and Funds include PTA contribution.
2. Figures in brackets are percentage shares.

Source: Primary Survey.

Government Schemes Income

The sampled schools have also received some amount under the various schemes being initiated by the union government. In total, the sampled schools received Rs. 6.27 lakh under nine schemes as follow: Sarav Shiksha Abhiyan (Rs. 0.61 lakh, i.e. 9.73 per cent), Mid Day Meal (Rs. 2.14 lakh, i.e. 34.13 per cent), Literacy Mission (Rs. 0.50 lakh, i.e. 7.97 per cent), Scholarship Fund (Rs. 0.69 lakh, i.e. 11.00 per cent), Science Education Fund (Rs. 0.75 lakh, i.e. 11.96 per cent), Open School System (Rs. 0.20 lakh, i.e. 3.19 per cent), Computer Programme (Rs. 1.25 lakh, i.e. 19.94 per cent), Weaker Section Students' Aid (Rs. 0.10 lakh, i.e. 1.59 per cent) and NSS (0.03 lakh, i.e. 0.48 per cent). The aided school did not receive any fund under these schemes. However, the unaided schools affiliated to PSEB have received Rs. 1.45 lakh under two schemes, i.e. Open School System and Computer Programmes. The unaided schools affiliated to CBSE have

received Rs. 1.24 lakh under literacy mission and science education fund. The government schools received Rs. 3.55 lakh under five schemes, viz. Sarav Shiksha Abhiyan, Mid Day Meal, Scholarship Fund, Science Education Fund and Weaker Section Students' Aid. The location-wise break-up indicates that out of total funds under these schemes, the rural schools received Rs. 3.42 lakh and urban schools Rs. 2.85 lakh. The funds under three schemes (viz. Sarav Shikhsa Abhiyan, Mid Day Meal, Science Education Fund) have been received both by rural and urban schools, while funds under three schemes only (Literacy Mission, Computer Programmes and NSS) have been received by urban area schools. The funds under the rest of three schemes (Scholarship Fund, Open School System, Weaker Section Students) were received by rural area schools (Table 27).

TABLE 27

Sampled Schools' Government Schemes Income

(Rs. Lakh)

	Scheme	*Govt. schools*	*Aided schools*	*Un-aided (PSEB)*	*Un-aided (CBSE)*	*Total*	*Rural*	*Urban*
1.	Sarav Shiksha Abhiyan	0.61 (17.20)	0	0	0	0.61 (9.73)	0.42	0.19
2.	Mid Day Meal	2.14 (60.29)	0	0	0	2.14 (34.13)	2.00	0.14
3.	Literacy Mission	0	0	0	0.50 (40.32)	0.50 (7.97)	0	0.50
4.	Scholarship Fund	0.69 (19.45)	0	0	0	0.69 (11.00)	0.69	0
5.	Science Education Fund	.01	0	0	0.74 (59.68)	0.75 (11.96)	0.01	0.74
6.	Open School System	0	0	0.20 (13.79)	0	0.20 (3.19)	0.20	0
7.	Computer Programmes	0	0	1.25 (86.21)	0	1.25 (19.94)	0	1.25
8.	Weaker Section Students	0.10 (2.83)	0	0	0	0.10 (1.59)	0.10	0
9.	NSS	0	0.03 (100)	0	0	0.03 (0.48)	0	0.03
	Total	3.55 (100)	0.03 (100)	1.45 (100)	1.24 (100)	6.27 (100)	3.42	2.85

Figures in brackets are percentages.
Source: Primary Survey

Voluntary Sources Contribution

The sampled schools, apart from fees and funds and government grants, also received funds worth Rs. 8.39 lakh under the various schemes described as voluntary sources contribution. The share of various schemes was as follow: panchayats (Rs. 0.42 lakh, i.e. 5.01 per cent), NRIs (Rs. 0.25 lakh, i.e. 2.98 per cent), NGOs (nil), MLA/M.P.s (Rs. 4 lakh, i.e. 47.68 per cent), Individuals (Rs. 0.59 lakh, i.e. 7.03 per cent) and Parents (0.52 lakh, i.e. 6.20 per cent). Management category-wise analysis indicates that government schools received some funds under all such schemes but for the NGOs. The unaided schools affiliated to CBSE have not received any such contributions. The aided schools have received some contribution under the heading charitable. Whereas, the unaided schools affiliated to PSEB have received some amount under two schemes, i.e. Charitable and Individuals. Out of total funds under voluntary sources, the rural area schools have received Rs. 5.61 lakh (66.86 per cent) and those in urban areas Rs. 2.78 lakh (33.14 per cent). The rural area schools received funds under all the schemes of voluntary contribution. Whereas urban area schools have received some amount from the NRIs, Charitable, Individuals and Parents sources, the voluntary sources contribution per school worked out to Rs. 52437.50, during 2002-03 (Table 28).

TABLE 28

Voluntary Sources Contribution Received by Sampled Schools

(Rs. lakh)

	Scheme	*Govt. schools*	*Aided schools*	*Un-aided (PSEB)*	*Un-aided (CBSE)*	*Total*	*Rural*	*Urban*
1.	Panchayat	0.42 (6.83)	0	0	0	0.42 (5.01)	0.42	0
2.	NRIs	0.25 (4.07)	0	0	0	0.25 (2,98)	0.25	0.25
3.	NGO	0	0	0	0	0.00	0	0
4.	M.L.A./M.P.	4.00	0	0	0	4.00 (47.68)	4.00	0
5.	Charitable	0.47 (7.64)	0.03 (100)	2.11 (95.48)	0	2.61 (31.11)	0.68	1.93
6.	Individuals	0.49 (7.97)	0	0.10 (4.52)	0	0.59 (7.03)	0.49	0.10
7.	Parents	0.52 (8.46)	0	0	0	0.52 (16.20)	0.02	0.50
	Total	6.15 (100)	0.03 (100)	2.21 (100)	0.00	8.39 (100)	5.61	2.78

Source: Primary Survey.

Summing Up

The analysis of educational progress in Punjab brings out that in the case of boys the gross enrollment rate at primary level has declined from 97.80 per cent in 1981 to 86.66

per cent in 1991 and further increased to 92.87 per cent in 2000. In case of girls, it declined from 96.90 per cent in 1981 to 83.27 per cent in 1991 and increased to 89.45 per cent in 2000. The number of primary school teachers increased between 1981 and 1991 but declined in 2001. Contrary to this, the enrollment ratio at secondary level increased both for boys and girls between 1981 and 1991. This increase is also accompanied by increase in the number of teachers at secondary level which has been doubled between 1981 and 2001. This demonstrates that the secondary education has gained, while the primary education has lost relative importance in Punjab. There have been very high dropout rates in the state for all the three levels of education. The dropout rates have stabilized around 20 per cent for primary level, 37 per cent for middle level, but declined in case of high school level from 48.53 per cent in 1993 (combined for boys and girls) to 38.62 per cent in 2001-02.

In the last decade or so, the unrecognized private primary schools in Punjab begun to attract an increasing proportion (from 20.34 per cent in 1995-96 to 24.50 per cent in 2000-01) of total students (both in recognized and unrecognized schools) at the primary education level. This larger growth of students, in percentage term, in unrecognized primary schools reflects diminishing confidence of the people in government managed schools. These government schools not only lack basic infrastructural facilities, but also bereft of advanced teaching practices, motivation and commitment among teachers, absenteeism among rurally posted teachers, etc. Consequently, parents having higher income and educational levels prefer to admit their children in private schools which are supposed to provide qualitatively better education.

The growing priority of secondary school level education within education sector as such is quite reflected in public spending policy of the state. The average share of elementary education in overall budgetary spending of the state on education was 33.65 per cent during 1980-81 to 1990-91 which declined to 31.15 during 1991-92 to 2001-02 and that of secondary education increased from 48.89 per cent to 53.04 per cent during the comparable time durations. The share of public spending on education in the overall budgetary expenditure of the state declined from 22.09 per cent during 1st sub-period to 16.29 per cent 2nd sub-period. Similarly, the share of education in state income too declined from 2.94 per cent to 2.91 per cent during the corresponding periods. The educational budget have recorded lower growth rate than that of overall budgetary expenditure of the state at real prices. This indicates a trend towards non-educational spending priorities of the state from the public resources. The secondary education had experienced comparatively higher growth than that of growth of educational sector (overall). The average level of expenditure during 2nd sub-period was lower than that of its level during 1st sub-period. The average number of students during 2nd sub-period was much higher than that of average number of students during 1st sub-period. The analysis clearly establishes that the state has to allocate much higher level of resources in the coming years in order to maintain the average level of real expenditure attained during 1st sub-period.

The survey results bring out very clearly that the share of fees and funds charged from the students constitute 6.89 per cent of the income of government schools, 16.31 per cent of the income of aided private schools and nearly 99 per cent of the income of non-aided private schools. It is further revealed that the major proportion of fees and funds charged in the government schools and aided private schools has come from secondary students (77.72 per cent and 55.96 per cent respectively). In case of non-aided private schools, the major proportion of fees and funds has been received from the primary students. In fact, fee charged is very high from primary students in non aided private schools making it completely inaccessible to the poor students. In fact, there are hardly any students from scheduled castes families, agricultural labourers and poor peasants in case of non-aided private schools. These students are highly concentrated in the government schools where there has been a decline in quality of education.

There has been a change in the policy of financing of school education in the state. There used to be government schools and non-aided private schools in the state till 1967. But after that government decided to provide 95 per cent of salary of teaching and non-teaching staffs in the private schools bringing them nearly at par with the government schools. This policy continued till the mid-1980s. After this, the government did not provide any grant for the new subjects or new classes added in the aided schools. In the 1990s, the government resorted to application of regular grant cuts in its 95 per cent share of in the case of aided schools forcing them to finance new courses/classes through fees and funds collected from the students. As the government faced severe fiscal crises, a certain proportion of posts of school teachers in government schools began to be kept vacant. Against these vacant posts, some teachers (less qualified) were appointed and paid through PTA funds generally collected from the students. This has further contributed to declines in the teaching standards both in the government and aided private schools. The high fee charged has crowded out the poor students from non-aided private schools towards the poor quality schools run with the government support. This has created a general divide of schools for haves (non-aided private schools) and schools for have-notes (government schools). Since the government schools and aided private schools provide education to the majority of students, this is reflected in poor quality (through high dropout rates) of education in the state. Further, there was a collapse of monitoring and inspection mechanism of the government and aided private schools during the disturbed decade of the 1980s. This has not revived in the decade of 1990s. A large number of government schools are headless (without headmasters and principals) even today. Along with the financial resource crunch, the administrative neglect has made many of these schools non-functional. The teachers in these schools asked to do other duties than that of teaching. This includes election duty, collection of census data, to be present in the rallies of ministers, join social campaign/adult literacy programmes, etc.

The revival of education especially the strengthening of secondary education in the state requires urgent intervention of the state in the critical areas. The secondary education can not be strengthened without strengthening the primary education from

where the students enter the secondary education stream. The adequate number of teachers, infrastructure, financial and administration support is urgently required. At secondary level, the conflict between different categories of teachers needs to be resolved to allow smooth promotions to the posts of headmasters and principals to avoid the situation of headless schools. At the same time; regular inspection and monitoring of school education needs to be restored to make the schools work which have become non-functional.

The non-aided private schools need to be regulated especially on two counts. Firstly, the fees and funds collection especially at the primary level needs to be regulated to allow entry to the students from the poor and socially backward families. Secondly, the exploitation of the teachers in these schools also needs to be checked. The mixing of students from the poor and rich families is very important for intellectual growth of children and for developing a healthy society. The government also needs to institute the system of scholarship and aid to the poor students in the non-aided private schools. This can also help ensuring access to poor students in the non-aided private schools.

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Notes

1. Many studies (Mehta, 1994a, 1994b: World Bank, 1997) consider the gross enrollment ratio (GER) as a crude indicator of the coverage of child population as students enrolled at a particular level of education. Since the over-age and under-age children are included in the GER this may result to value more than 100 per cent in developing regions/countries. Alternatively, net enrollment ratio (NER) - better indicator of enrollment - has been suggested. The NER covers child population of a specific age-group of pupils in relation to the corresponding grades or levels of education, excluding overage and underage children. However, to calculate the NER, one needs age and grade matrix of pupils, which is not available both on regular basis (time-series data) and at macro level. Hence, the NER is not used in this paper. Authors take into account the basic limitations of the GER, while drawing the inferences from the analysis in this paper.
2. Drop-out rate represents the percentage of children who discontinued the cycle of study/grade/level of education in a given school-year. Drop-out rate for Punjab is calculated by the Economic and Statistical Organization, Punjab on the basis of the formula suggested by Central Statistical Organization, Government of India in its publication: *Selected Socio-Economic Statistics, India*, 1998.The general formula to calculate the drop-out rate is as under:

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Walking the Last Mile
Meeting the Learning Needs of the Marginalized Populations in Andhra Pradesh, India

I.V. Subba Rao*

Education for All in India: The Progress So Far and Continuing Challenges

While only 16.6 per cent of Indians were literate at the time of India's independence, consistent efforts made by the country over the last five decades have resulted in nearly two-thirds of the total population becoming literate. The literacy rate in the country, as per 2001 census, is 65.4 per cent. For the first time, after Independence, the absolute number of illiterates has come down in spite of increase in population. The total number of literates has now gone up by 203 million. Today, three-fourths of the men and more than half of the women in the country are literates. The gender gap has also been narrowing. While difference between the male and female literacy was 25 per cent in 1991, it has narrowed to 22 per cent in 2001. Literacy and education have been recognized as important dimensions of national development. Access to education has also significantly improved over the years. During the last fifty years, the literacy rates have improved and the number of schools has increased (Table 1). It can be seen that the rate of progress among women is much higher (growing seven-fold) than that of men (which grew only three-fold) though starting at a lower base.

TABLE I
Literacy Rate and Number of Primary Schools (1951 – 2001)

Year	*Literacy Rate (%)*			*Number of Schools*	
	Persons	*Males*	*Females*	*Primary*	*Upper Primary*
1951	18.33	27.16	8.86	215,036	14,576
1961	28.31	40.40	15.34	351,530	55,915
1971	34.45	45.95	21.97	417,473	93,665
1981	43.56	56.37	29.75	503,763	122,377
1991	52.21	64.13	39.29	566,744	155,926
2001	63.57	75.85	54.16	641,695	198,004

Note: Literacy rates of 1951, 1961 and 1971 relate to population aged five years and above. The rates for the years 1981, 1991 and 2001 relate to the population aged seven years and above.

As per the last All India Educational Survey conducted in 1993, ninety-four per cent of the total rural population was served by primary schools and 83 per cent of the

* Principal Secretary, Government of Andhra Pradesh, Hyderabad-500001. Email: ivsr@hotmail.com.

habitations had primary schools. (Annexure 1) The total enrolment has gone up by nearly six times and enrolment of girls has gone up by 9.16 times. Over the years, the upper primary level enrolment has gone up by more than 13 times. The gross enrolment ratio (GER) in primary schools has increased from 42.6 per cent in 1950-51 to 94.4 per cent in 1999-2000. Similarly, for upper primary stage, the GER has gone up from 12.7 per cent in 1950-51 to 58.79 per cent in 1999-2000. There has also been a substantial increase in the number of teachers since 1950-51. From 624,000 in 1950-51, it has gone up to 3,217,000 in 1999-2000. The number of female teachers has shown a dramatic increase from 95,000 in 1950-51 to 1,152,000 in 1999-2000. The number of children dropping out of school system between classes I to VIII has shown a steady decline from 78.3 per cent in 1960-61 to 54.5 per cent in 1999-2000. Between classes I and V, currently 40.25 per cent children are dropping out as compared to 65 per cent in 1960-61 (Table 2).

TABLE 2

Drop-out Rates at Primary and Upper Primary Levels, 1960-61 to 1999-2000

Classes	*1960-61*	*1970-71*	*1980-81*	*1990-91*	*1992-93*	*1998-99*	*1999-00*
I-V							
Boys	61.7	64.5	56.2	40.1	43.83	38.62	38.67
Girls	70.9	70.9	62.5	46.0	46.67	41.22	42.28
Total	64.9	67.0	58.7	42.6	45.01	39.74	40.25
I – VIII							
Boys	75.0	74.6	68.0	59.1	58.23	54.40	51.96
Girls	85.0	83.4	79.4	65.1	65.21	60.09	58.00
Total	78.3	77.9	72.7	60.9	61.10	56.82	54.53

Source: Government of India, 2001

Evidently, more children are entering schools. However the country has formidable challenges in its EFA evdeavour. The most important one is the problem of high drop-out rates. More than half of those who enter Class I drop-out before they complete the elementary education cycle and many of them are girls. As we shall see a substantial number of the out-of-school children belong to two major marginalized groups in the country. There is obviously a need to ensure that the holding power of the school is enhanced and all children who enter school complete the full cycle of elementary education.

The 'Excluded' Scheduled Castes and the 'Isolated' Scheduled Tribes – Two Major Marginalized Groups in the Country

Most of the children who drop out belong to the traditionally disadvantaged, socially, economically backward and marginalized groups in the country and most of them belong to two categories called 'Scheduled Castes' (SCs) and 'Scheduled Tribes' (STs). These marginalized groups have traditionally remained excluded from the development process. Evidently, any effort towards realizing the constitutional commitment of universal

elementary education for all children or the global endeavor of *Education for All* must seriously address an array of constraints that have hitherto excluded large sections of Indian society from basic education (Nambissan, G and Sadwal, M, 2002).

Among the educationally most deprived sections in India are the Scheduled Castes comprising 16.5 per cent and the Scheduled Tribes comprising nearly 8 per cent of the total population. Both groups are disadvantaged and marginalized and have either been 'excluded' because of social discrimination as in the case of Scheduled Caste or 'isolated' because of geographical, linguistic and cultural barriers as in the case of scheduled tribes.

The Scheduled Castes (SCs)

The Scheduled Castes are not only economically backward but have traditionally been discriminated socially and denied access to learning. These groups have been deprived of education for a long time, having been regarded as untouchables in the caste structure of traditional Hindu society. As a result of this cumulative social, economic and educational deprivation, only 37 per cent of this population is literate even after 40 years of independence. Most of these Scheduled Caste groups are poor. Nearly 48 per cent of this group is below the official poverty line. As per the National Sample Survey (NSS) conducted in 1993-94, sixty-one per cent of these families lived on wage labour. These groups live in spatially segregated clusters at the periphery of village, are not allowed access to common village wells and are prevented from entering temples (Nambissan, G and Sadwal, M, 2002). Education is seen as a critical factor for their socio-economic progress. Studies have shown that education has facilitated occupational diversification and social mobility for a small section of these population groups who have got public employment. The educated Scheduled Caste persons are certainly less willing to accept the domination of higher castes and have been able to assert their rights with substantial self-confidence, social dignity and self-esteem. The educational deprivation of these groups is not only traditional exclusion because of the caste hierarchy but also a silent exclusion because of the discriminatory practices that occur in quite a few parts in the country. Many of these children are first generation learners, and, therefore, they are likely to begin schooling with lesser preparedness to learn. Their language, social and conceptual skills are likely to be at a much lower level than other groups coming from relatively better educated homes. It requires a lot more sensitivity to address the learning needs of such children in the classroom. The attitude of the teachers is crucial and can result either in reproduction of discriminatory attitudes and practices that underlie caste relations or can play a positive facilitative role that can obliterate caste distinctions and mainstream all children into an inclusive, democratic classroom (Probe, 1999 Nambissan, and Sedwal, 2002).

The Scheduled Tribes (STs)

Nearly 8 per cent of India's population belongs to the tribal groups. They are classified as Scheduled Tribes because they are as such notified by the President of India under a Schedule of Article 342 of Constitution. The notification of a tribal group as scheduled

tribe is based on certain characteristics like the tribal groups' distinctive culture, geographical isolation and low level of socio-economic development. There are 698 Scheduled tribes spread all over the country, in almost all the states barring a few States and Union Territories like Chandigarh, Delhi, Haryana, Pondichery and Punjab.

Within the 698 Scheduled tribes, there are seventy-five groups which are much less economically developed than other Scheduled Tribes. They continue to be in the pre-agriculture stage of economy and have very little access to education and other social services. Tirbals speak more than 270 languages belonging to all the major language families, among which the Austric, Dravidian, Tibeto Chinese and Indo-European families are the dominant ones. Most of these tribal groups live in sparsely populated, scattered habitations located in interior, remote and inaccessible hilly and forest areas, which have poor communication facilities. Nearly 62 per cent of the tribal habitations have less than 300 residents. The isolation of these marginalized groups is seen in the markedly low levels of literacy. The literacy rate among these tribal groups was only 30 per cent in 1991 as compared to 62 per cent in the rest of the population. The female literacy rate was even lower. It was only 18 per cent as compared to the national female literacy rate of 40 per cent. Inadequate social infrastructure, poor communication network, abject poverty, linguistic and cultural alienation have proved to be formidable barriers for integration of these groups with the mainstream of developmental programmes.

Clearly, these two groups, which together constitute 25 per cent of India's population, need to be specially focused on if EFA has to become a reality. Most of the out-of-school children, working children and children who are at risk of dropping out of schools are from these marginalized groups.

The National Policy Framework: Sharp focus on the marginalized

The Government of India has, therefore, in all the five-year plans spelt out that the priority should be given to the educational needs of SCs and STs and make it a national commitment. In the current paper, the focus is on Scheduled Tribes.

The National Policy on Education (1986) in Para 4.6 deals with the education of the scheduled tribes. Four aspects of this policy framework are worth noting in the current context:

1. Priority will be accorded to establishing primary schools in tribal areas.
2. The socio-cultural milieu of the STs has its distinctive characteristics including, in many cases, their spoken languages. This underlines the need to develop the curricula and devise instructional materials in tribal languages at the initial stages, with arrangements for switching over to the regional language.
3. Educated and promising scheduled tribe youths will be encouraged and trained to take up teaching assignments in tribal areas.

4. The curriculum at all stages of education will be designed to create an awareness of the rich cultural identity of the tribal people as also their enormous creative talent.

The Program of Action, 1992 which was based on the National Policy on Education spelt out the action to be initiated:

> "Children from tribal communities will be taught through the mother tongue in the earlier stages in primary school. Teaching/learning material in the tribal languages will be prepared providing for a transition to the regional language by Class III.
>
> The home language of the ST children may be different from others. Therefore, standard teaching/learning material will be re-written to make them intelligible to the SC/ST children especially in areas where the standard language and the learners' dialect are different.
>
> It will be ensured that Minimum Levels of Learning (MLL) already set up for primary schools will be achieved, that the necessary standards of three R^s are acquired by all children in SC/ST communities."

The education of scheduled tribes and provision of facilities to study in the mother tongue are clearly adumbrated.

> Article 350 (A) of the Constitution of India states as follows:
>
> "It shall be the endeavour of every state and of every local authority within the state to provide adequate facilities for instruction in the mother tongue at the primary stage of education to children belonging to linguistic minority groups; and the President may issue such directions to any state as he considers necessary or proper for securing the provision of such facilities."

It can be clearly seen that the National Policy framework emphasized improvement in access by opening new schools, engaging tribal youth as teachers and preparation of curricular materials in tribal languages. While a number of initiatives have been taken on the first two issues, there has been very little action in terms of curriculum reforms and preparation of textual and learning materials for children belonging to these tribal groups. The objective of providing educational opportunities of comparable quality to these groups and in all these areas is still elusive. Improving access by establishing schools, positioning teachers, giving incentives both to the learners as well as teachers, engaging the community to create awareness and create a demand for schooling has resulted in higher enrolment rates over the years. However, it is significant to note that the drop-out-rates among these groups in various states continues to be alarmingly high. (Table 3)

TABLE 3

Drop-out Rates of Scheduled Tribes (Class I-V) in Indian States with High Tribal Population, 1991-92

State / Union Territory	*Boys*	*Girls*	*Total*
1. Andhra Pradesh	66.65	71.95	68.64
2. Bihar	70.96	71.81	71.26
3. Gujarat	53.98	66.51	59.39
4. Madhya Pradesh	31.00	52.27	38.59
5. Maharashtra	56.24	63.88	59.48
6. Orissa	78.03	74.14	76.81
7. Rajasthan	73.01	84.20	75.92
8. West Bengal	62.47	69.68	65.07
9. Arunachal Pradesh	62.21	58.19	60.71
10. Assam	65.13	67.10	66.00
11. Meghalaya	68.00	67.95	67.99
12. Mizoram	57.91	58.37	58.13
13. Nagaland	45.83	49.23	47.42
14. Tripura	70.78	73.72	72.03

Source: Government of India, 2001

Table 4 indicates the gap between the literacy levels in the two disadvantaged groups as compared to the rest of the population. Even though there has been a steady improvement in the literacy levels of these groups, the gaps are still quite large.

TABLE 4

Literacy Rates 1971, 1981 and 1991

Census Year	*Literacy Rate*			*Gap between the rest of the Population and*	
	Scheduled Tribe	*Scheduled Caste*	*Rest of the Population*	*Scheduled Tribe*	*Scheduled Caste*
1971	11.30	14.67	33.80	22.50	19.13
1981	16.35	21.38	41.22	24.87	19.84
1991	29.60	37.41	62.65	33.05	25.24

Source: Sujatha, K. (2000)

Meeting the Challenge

The Andhra Pradesh experience in involving communities and contextualizing curriculum

The present paper specially focuses on the efforts made by one of the Indian states, Andhra Pradesh, to address the learning needs of one of these two groups - the isolated, ethnic tribal groups in the State. It broadly traces the contours of two initiatives taken by

the State Government to provide educational opportunities to all children in these remote, inaccessible tribal habitations. The first set of interventions relate to *enhancing access and improving governance* and the second set of issues relate to *contextualizing curriculum design* through a process of empowering communities by offering a choice in the medium of instruction and integrating curriculum development with the professional development of teachers in these areas.

Andhra Pradesh (pop: 75.7 million) has a population of 5 million tribals, constituting nearly 6.5 per cent of the total population. There are 33 tribal groups at various levels of socio-economic development and diverse linguistic and cultural patterns. Ninety per cent of them live in eight districts out of the total of 23 districts. There are eight languages that are used most commonly by these groups. None of them has a script. The literacy levels are abysmally low. Starting from a mere 3 per cent at the time of Independence, the literacy rate has moved up to only 17 per cent over four decades. However all these groups have rich cultural traditions and a heritage of creative performing arts, especially music and dance and a wealth of folklore.

The challenge before the State is to provide educational opportunities and meet the learning needs of these groups. Over the last three decades, the efforts made in the State have yielded tangible results. Access to schooling has improved, more children are enrolled and the drop-outs are declining. The tribal enrolment has also steadily gone up over the years. 915,820 children were enrolled in 1998-99. It went up to 1.02 lakh children in 1999-2000 and 1.04 lakh in 2000-2001. The State has added a large number of teachers in these areas. In 1998-99, there were 10,101 tribal teachers, 516 teachers were added during 1999-2000 and 1153 in 2000-2001 bringing the total number to 11,770. All these teachers are drawn from tribal groups. They are educated youth who also have had teacher-training certificate. In addition, during 2002-2003, about 5000 teachers belonging to various tribal groups who do not have requisite training qualification were inducted and given a novel teacher training programme which made them learn by doing. It was a unique professional development programme in which these teachers did course work, projects and practical training in the classroom under the supervision of master trainers and faculty members from the Colleges of Education.

What, however, continues to be a matter of concern is the high drop-out rate. There has been a decline in the drop-out rate over the last three decades from 94 per cent in 1970-71 to 81 per cent in 2000–2001 but it is still unacceptably high. The current drop-out rates for ST children (80 per cent) (see Table 3) are significantly higher than the average drop-out rate for all children (56 per cent) in Andhra Pradesh.

Clearly, there is a huge unfinished agenda. We seem to be still quite some distance away from the last mile. The policies of the State as far as the tribals are concerned must be seen against the backdrop of the national policy and the constitutional provisions made to bring these marginalized groups into the main stream.

The challenge of achieving Education for All in the State is essentially to reach out to these excluded groups. If one sees, the enrolment and drop-out rates at elementary stage in various parts of Andhra Pradesh, one clearly discerns the areas that have been relatively left out and segments of the population that have remained outside the

educational fold. Most of the tribal habitations are inaccessible and are located in hilly terrains. The communication network is very poor as compared to other areas. The population is scattered and sparely populate. So, effective service delivery to these areas becomes an enormous challenge. The cultural ethos and the language spoken show marked variations.

The major challenges of providing quality education in tribal areas relate to two sets of issues. The first is to establish schools in far-flung habitations and position teachers in these remote areas. The major constraints are scarcity of resources and the inadequate number of local educated youth who can teach in schools. This necessitates positioning teachers who do not belong to the tribal areas and who have been educated outside the tribal areas. In order to attract teachers to work in these areas, incentives like additional allowances are provided. Yet there is considerable reluctance on the part of the teachers. The questions, therefore, before the policy makers were: How does one position enough teachers in these schools? How does one encourage local capacities to be built? Are there mechanisms to involve local communities in the provision and monitoring of schooling processes?

The second set of issues relates to the content and process of schooling in these areas. These groups are characterized by a unique culture ethos and life style. The folklore, the festivals and the way of life are quite different from most other areas. Over the years, with constant interaction, tribal groups have become less isolated. However, this process of acculturation has resulted in erosion of cultural identity and a sense of alienation. Language spoken at home and the language of instruction in school have also been a bottleneck for ensuring a smooth transition from home to school for many of the tribal children.

Changing patterns of State-Community interface in school governance

The State of Andhra Pradesh has undertaken a number of reforms in the field of tribal education over the last three decades. Setting up of residential schools, community centers, appointment of tribals as teachers, creation of a Tribal Cultural, Research and Training Institute and providing training to teachers teaching in tribal areas, preparation of bilingual primers, providing incentives to children, creation of forums for teachers' professional development in the school complexes are a few interventions which have been taken up by the State.

If one sees the history of management of tribal education in the State, we notice six phases of State intervention. First relates to pre-Independence period, when there was very little state action. Voluntary organizations and missionary groups set up schools in these areas and the coverage was not substantial or uniformly spread across the tribal areas.

In the 1950s and 1960s, there was a movement to take up community development projects with active public participation. It was hoped that under the community development programmes, tribal areas would also develop. However, it was later realized that the tribal situation was quite different from the general situation and the

specifics of these circumstances were not fully reflected in the developmental priorities. In addition, the poor absorptive capacity of these groups resulting in skewed development. There was very little demand for education and very feeble articulation of the demand in various forms. Consequently, these areas tended to be excluded from the mainstream of the developmental process.

The third phase is marked by the emergence of the concept of tribal sub-plan in the 1970s. Areas predominantly inhabited by tribals were identified and plans for these areas were drawn up. Area-specific, integrated, micro planning exercises were undertaken and an institutional mechanism for taking up a concerted, coordinated development of these areas was evolved and the Integrated Tribal Development Agency (ITDA) was set up in mid-1970s. This provided a new framework for a decentralized, contextual planning process and took the specific tribal realities into consideration while designing the programmes for those groups. There was considerable autonomy given to the project authorities to innovate and in quite a few areas, this was fully utilized to bring community involvement in a significant manner. This was the period when residential schools called Ashram schools were set up in all the tribal areas. These were located in certain central locations each serving a cluster of tribal habitations. These schools were supposed to provide quality education and fully offset the opportunity costs of schooling that was proving to be one of the major impediments in universalizing education in these areas. Local teachers were recruited and a package of incentives was evolved for attracting children to schools.

The fourth phase was in the 1980s when the school system was expanded. It was felt that Ashram Schools were too few and did not provide enough educational opportunities to younger children. Parents were unwilling to send young children to these schools since they were far away from their habitations. So primary schools had to be set up as close to children's homes as possible. Nearly 3500 single-teacher schools with Classes-I and II were started. The idea was that these small schools manned by local tribal youth could provide basic educational facilities in Grades I and II. These schools could later be upgraded by adding more classes and teachers or the children could move to nearby residential schools called 'Ashram schools' from Grade III onwards. The Government of Andhra Pradesh had made it a State policy to recruit only tribals as teachers in these tribal areas. It was expected that their familiarity with the cultural ethos would facilitate and accelerate the pace of reaching the EFA goals. This is also incidentally in consonance with the UNESCO framework: "All educational planning should include at each stage early provision for the training, and further training, of sufficient numbers of fully competent and qualified teachers of the country concerned *who are familiar with the life of their people and able to teach in the mother tongue*" (UNESCO, 2003).

The fifth phase was one in which community involvement in tribal education became more pronounced. In the 1990s, A.P. Tribal Development Project was taken up. One of the main strategies adopted during this period was to involve the community in running of the schools, by enlisting their support for building schools, in serving mid-day meal and in the selection of teachers. Community was involved not only in selecting the

teachers but also in making payment of teachers' salaries. It was felt that greater community involvement was essential for bringing out a transformation in the way educational services ought to be delivered in these areas. Earlier, small alternative schools called "Maabadi" (our school) were set up in each habitation in these areas, comprising of one teacher teaching two classes. They catered to small groups of learners, scattered in these remote areas.

The sixth phase, as we move into the late 1990s, sees the pendulum swing slightly away from the community. While nearly half of the total schools are still managed by the community, there has been a growing demand from the community teachers to become government employees and seek salary on par with regular teachers. While they were being paid remuneration till then by the community, they wanted salaries to be paid by the Government. There was also a growing demand from them that the schools must be upgraded to regular primary schools. Over the last four years, over a thousand single teacher schools have been converted into regular primary schools by adding additional teachers and additional classes. Tribal teachers were recruited by the government for these areas and a special training programme was instituted for them after recruitment. The pay has also been enhanced on par with other teachers in the system.

One can clearly see in these six phases of educational management a seesaw, oscillatory movement between State involvement and Community participation. While the prime mover has been the State, a growing realization that tribal milieu and ethos requiring a contextualized response gave rise to more area specific, tribal group oriented approach. The role of the tribal communities in generating, articulating and managing the demand was recognized. Community schools were born. However, these islands of community ownership are slowly getting merged into the vast landscape of the State system. However, in this dialectical process, community still has an important role, albeit a little abridged one.

Community Schools: An Experiment in Forging a Meaningful Partnership

Various studies conducted in the last decade show that the process of community involvement has strengthened the institution of the school in these areas and there is considerable demand for education among tribal parents. The community schools in Andhra Pradesh have been able to involve the community in a very significant manner. As Sujatha (2000) points out in her excellent study of these schools:

> "As a mechanism to overcome these difficulties, associated with teacher and community, decentralization of the school system was developed, where the establishment of community schools teacher management and effective participation were entrusted to the community. Village Education Committees[1] and mother committees[2] were constituted to ensure community participation by directly intervening in the education of children."

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[1] *Comprising of community leaders and teachers*

[2] *Comprising of mothers of school-going children*

The study reveals the strengths of this alliance between the community and the government. The participation of parents and community members is significantly higher in these schools as compared to other schools. Data from this very elaborate study (Sujatha, 2000) of these schools show that in 67 per cent of community schools, parents frequently visited the schools as compared to only 12 per cent in the other schools in these areas (Table A.3 in Appendix). While in more than half of the other schools, parents never visited schools, the percentage of such schools was only 24 per cent in the case of community schools. Similarly, it was observed that community members attended village education committee meetings in 79 per cent of the community schools as against 21 per cent in other schools. This intensive interaction with the community has had very perceptible impact on student attendance and teacher's regular attendance. Eighty-five per cent of the students were regularly attending schools in these community schools as against 76 per cent in other schools. Similarly, it was found that 85 per cent of the teachers were regularly attending community schools, whereas in the other schools only 28 per cent were attending regularly. The popularity of the community schools had increased over the years. As can be seen from Annexure 6 both the number of schools and the student enrolment increased in one of the tribal districts over the years during 1991-97.

While enrolment and attendance have improved, the study also found that there has been a higher rate of drop-outs and the performance of the learners in language and mathematics has been lower than that of learners in their schools. It can also be seen that certain critical areas in which the community school experiment needed further strengthening. While the local tribal teachers were more regular and could motivate the community to send their children to schools, the problem seemed to be their inadequate professional competence and the ability to respond to the learning needs of the learners in a systematic manner.

This is not surprising if one looks at the profile of the teachers' educational qualifications and professional training in these community schools as compared to other schools. As can be seen while only 80 per cent of teachers in the community schools had more than ten years of general education, there were nearly 98 per cent such teachers in single teacher schools, 93 per cent in Ashram schools and 96 per cent in other management schools. Apparently, 20 per cent of teachers in community schools had less than 10 years of general education. As regards training, none of the community school teachers had any professional qualification, whereas there were only 5 per cent such untrained teachers in single teacher schools, 14 per cent in Ashram schools and 10 per cent in other management schools. It is therefore, not surprising that the community school teachers were far less academically equipped to impart quality instruction and had to be given additional support by way of teacher training, supplementary teaching learning materials and recurrent guidance and mentoring. These were challenges which this State took upon itself to address through intensive training programme and in the development of new curricular materials. Enhancement of teacher capacity was seen as integral to effective teacher management. It is interesting to note that the community

members while choosing the teachers for their village school adopted four criteria for their selection. As Annexure 11 shows, when parents were interviewed about the criteria for teacher selection, they stated that in 75 per cent cases, teachers were chosen because they belonged to the same village or the same community or had approached the community with a promise to improve education in the village. Only 25 per cent were chosen because they had the ability to teach children. Admittedly, the selection of teachers by the village community was based more on teachers' desire to do something for the village and the children in the habitation rather than on their ability to teach, though the desire to get a salary-paying job in their own environment should not be discounted.

The main concerns, in this school system, then, were essentially centered round retention of children in school and the quality of schooling. Even in the initial grades, the curriculum transaction and the textbooks do not seem to address the learning needs of these tribal children. Consequently, the focus shifted to the content and processes, to curriculum and instruction.

Contextualizing Curriculum: Listening to Tribal Voices and Giving Choice to Learners

A recent experiment in Andhra Pradesh to contextualize curriculum development process and tailor it specifically for each tribal group shows some possible new direction in which language and culture can be interwoven to improve the quality of classroom transaction. The theoretical backdrop for the programme was provided by educationists who have highlighted the disadvantaged position of tribal language speakers in those states where their mother tongue is not one of the state languages. The tribal identity tends to get submerged in the dominant population's cultural hegemony. The minority languages tend to fade out if the state doesn't respect diversity. (St. Clair, 2002) India has traditionally been a multilingual country and it was felt that this character needs to be preserved and carefully nurtured. Pluralism is sometimes equated with divisiveness and fragmentation. The State, however, took the position that celebrating diversity can be an essential facet of a thriving democracy and can lead to greater progress because it gives respect and self-worth to various ethnic groups. This would ensure their active participation in societal growth. Language can be a potential barrier if there is an appreciable variation in the cultural ethos of different communities. It can lead to higher drop-out rates if the language spoken at home and in the school is different. This may be even more of a problem if children are first generation learners and have no literate environment at home. This provided the theoretical backdrop for taking the first steps in the curriculum reform process.

Several studies have highlighted "language barrier as a factor impeding the progress of formal schooling along tribals. Interestingly the Constitution of India allows the use of tribal dialect (mother tongue) as the medium of instruction. But this has not been adopted on the grounds of feasibility and viability of introducing and sustaining such a change. Notwithstanding persisting problems, interventions and initiatives like mid-day meals, creation of self-help women groups, environment building programmes under different

projects; appointment of local tribes as teachers and developing partnership schools and village community have helped tribals realize the importance of education and adopt a positive attitude towards the education of their children. The question which EFA Planners in India are addressing is to consider various strategies and interventions which could more *sharply focus on quality concerns and improving the educational needs of the marginalized".* (Govinda, 2002) This is precisely the *focus* that has been built into the process of planning for education of tribal groups in Andhra Pradesh.

Teaching children in the mother tongue has an additional advantage of making learning more activity based rather than rely on the tradition of rote learning. Classroom teaching using the mother tongue has been found to be helping students to move to more active learning. Researchers have also found that 'active' learning is likely to be more effective particularly for tribal children who have no previous understanding of formal or traditional schooling but have learnt through 'doing' for generations.

As has been pointed out earlier, the Indian Constitution as well as the National Policy statements have been reiterating the need for development of learning materials in the mother tongue of the learners. However, there have been no large-scale efforts in this direction. To develop this kind of plural curricular materials requires a re-orientation of the current paradigm of standard, statewide textbook development and curriculum renewal. In this context, there were a number of debates in which quite a few questions were asked:

a) Whether mother tongue instruction would be desirable if these isolated groups have to be mainstreamed into the globalized world?
b) Are we not doing a disservice to these groups by teaching them in a primitive tribal dialect rather than in either the State language or the national language?
c) Will it not restrict their social mobility and economic opportunities?
d) Is it not perpetuating their exclusion and backwardness?

There was skepticism, resistance and a natural bias in favour of status quo. However, there was evidence from a number of studies that was shared with the planning group. For instance, it was interesting to note that a study conducted in mid-1990s by the National Council of Educational Research and Training (NCERT) on the educational problems of tribal children mentioned that in the predominantly tribal inhabited areas, most teachers preferred to use or actually use the regional language in classroom transaction and that a large number of teachers believe that the textbooks should be in the standard regional language. Issues emerging in the focused group discussions conducted as a part of this NCERT study highlighted the difficulties of the teachers in transacting curriculum in the tribal dialect, and the inability of tribal children to understand lessons because they were in regional language.

In addition to the language barrier, it was recognized that there is also an attitudinal problem that may occasionally compound the problem. As the study pointed out, many non-tribal teachers did not encourage tribal parents to send their children to schools. They tended to look down upon their culture, dress, customs and language as "primitive'. This created a feeling of inferiority among the tribals. The language of the teacher was

not intelligible to tribal children. Teachers coming from outside did not have any knowledge of the local tribal language. This created a communication gap between parents and teachers. In order to bring the home and school closer, it was suggested that more educated tribal youth could be recruited as teachers so that they could communicate with students in their mother tongue. Clearly, language is one of the major obstacles in these areas.

The challenge before the Government was to evolve a policy and a programme of action to translate into action the policy of providing education in the mother tongue at least at the primary school level.

Translating Policy into action

The State government initiated action to make this change. A group of anthropologists, sociologists, linguists, educationists and folklorists was constituted for each of the eight main tribal groups. These were faculty members and students working in various University departments in the state. They were asked to go to each of the tribal areas, stay there with the tribal groups and record stories, songs and conversations of each tribal group as they occur in their daily lives. The teams came back after a week after collecting these data. They transcribed them, analyzed them and looked at the correspondence between the main State language of Telugu and the tribal dialect. There were some sounds in the tribal dialects, which did not have their equivalents in Telugu. There were some Telugu words for which there were no tribal equivalents reflecting variations in the world-view and life spaces. A comprehensive glossary of words was then prepared.

The second action taken was to map out themes, which would be of interest and relevance to the tribal group. Weekly theme-webs were developed. These formed the basis for development of the entire curriculum. A question arose at this stage. Since none of the tribal dialects have any script, should we invent a script for each language or should we adopt the orthography of the main state language, Telugu. The pros and cons were carefully considered. The first option was likely to be time-consuming and more difficult to gain acceptance. Perhaps it was not worth spending so much effort. Moreover, children have to move on to state language in later grades. It would help if they learnt the script right from beginning. The transition would be smoother. On a careful consideration of various options and elaborate discussion with experts and tribal stakeholders, it was felt that we should adopt the Telugu script. It would not be necessary to invent a new orthography which could involve not only technical challenges but also pose the problem of political negotiations and consensus building which could be time consuming. Considering all these factors, it was decided that the textbooks would be based on the cultural realities of the tribal groups, but written in Telugu script.

The next step was to develop visually appealing, pedagogically sound alphabet charts with illustrations, key words and letters. Alphabet books, using the same key words with new words and simple sentences were developed for each letter of the alphabet. All were then linked to the theme webs. Additional learning materials, based on the children's

natural fascination for listening to stories and narration of tales, were developed. A listening story to be read to children, a children's storybook and a Big Book were written up for each of the themes. Collecting the linguistic data with sounds and phonemes of each language enabled the multi disciplinary group to identify words suitable for the First grade learners and it was possible to construct textual materials appropriate for the age and grade. The curriculum themes being based on local culture and the village calendar, the content reflected the seasonal events, daily activities and features of local environment all of which would be already known to the child.

A unique feature of this programme was the bottom up approach. It was an exercise in which the local culture and dialectal variations were authentically captured and woven into the entire process of curriculum development. Curriculum themes were developed in a participatory manner and emerged out of constant interaction with the local tribal groups and tribal teachers. This ensured intense community involvement right from the inception of the project. The tribal teachers were a part of the exercise and their participation enriched the process considerably. The buy-in was total. The tribal teachers helped the academic group in collection of data, in writing the lessons, in choosing the themes. Some of them even volunteered to provide illustrations. In the earlier programmes, curricular materials were merely handed down to the tribal teachers to be implemented in the classroom. A significant departure in this project was to involve them at every stage, in every possible manner, so that implementation can be easier and constant innovation could become an internalized process. In a way, capacity building of the tribal teachers became a concurrent activity. There was tremendous enthusiasm among the tribal teachers. While the production of textbooks was being undertaken, extensive interaction with the tribal communities ensured that the end users saw value in what was being done. An unintended spin off of this experiment was enhancement of self-esteem of the tribals. Probably for the first time, they found that even their languages can be used as medium of instruction, that their songs, stories and folklore were perceived to be of some value and there was a genuine appreciation of their cultural heritage. They were happy that someone paid attention to them and were trying to create a school where children learnt in their mother tongue. The transition from '"isolation" to 'inclusion' had begun. In the language policy of the State, tribal languages have had no real place because the numbers were too small to produce textbooks in these dialects. Attempts were made earlier but there was hardly any involvement of the tribal groups in the process of production. It remained largely a State directed activity.

The current endeavour was a paradigm shift. It sought to offer a choice to the tribal groups. They were provided the option, if they so desired, to educate their children in their mother tongue. The tribal communities were asked if they would like to adopt the new textbooks in their schools. It was therefore left to the communities to decide, so that ownership of the new curriculum is passed on to the community. This proved to be an empowering process. Communities which wanted these textbooks for Class – I have now been provided. There are currently 80 such village schools, wherein the first phase

of the project is being implemented. Most of these schools have homogeneous tribal population and there are enough native mother tongue speakers working as teachers.

Another unique feature of this experiment is the fact that international educationists like Dr.Pamela Mckenzie and experts from various organizations like the Summer Institute of Linguistics have volunteered to support the initiative. They have been giving extraordinary technical support to the project. The international experience and expertise has been invaluable as it brought to the project a unique state-of-the-art perspective on language learning, mother tongue education, and multi lingual education. The team has assisted the project since inception and continues to support teacher training, development of literature in these tribal languages and production of dictionaries.

Besides the choice of script, another contentious issue that had to be dealt with while designing the project was to decide on the transition from mother tongue to regional language and the stage at which the national and international languages need to be included. A cue was taken from the framework proposed by UNESCO (2003) in its position paper wherein mother tongue has been seen as "a means of improving educational quality by building upon the knowledge and experience of the learners and teachers." Going by the worldwide experience in multilingual education in countries as diverse as Papua New Guinea, Brazil and Cameron and many West African countries, we decided that an 'additive' approach might be a better option rather than a 'subtractive' one. This involved *adding* the State and National or International language to the initial instruction in mother tongue rather than *replacing* the mother tongue with the State or National language. UNESCO has suggested that initial education could start with mother tongue and subsequently the second and third languages can be introduced at first orally and then in the written form in the second and third grades. The State's effort was guided by a number of research findings on the role of language in education which seem to indicate that children performed better when they are taught through their mother tongue in the initial grades and that bilingual programmes seem to be more beneficial than monolingual programmes. A carefully worked out multi lingual education program seemed to be ideal. The emphasis therefore was on integrating tribal languages into the curricular development process and building on the foundations in the native language, introducing other languages in later grades.

The transition which has been tentatively worked out in the State is to introduce state language orally in Grade II and writing in Grade III and teach through the regional language from Grade III. English will be started from Grade IV with reading and writing in English being introduced from Grade V. However, this is a contested terrain and is being actively discussed in order to arrive at a consensus on the best possible transition plan.

There are six aspects of the programme which seem to make this programme more likely to be sustained and scaled up across the tribal areas.

The first is the institutionalization of the programme. The Tribal Cultural Research and Training Institute (TCR&TI) has been nominated as the nodal body for taking this initiative forward. This institute owns the programme but works in close conjunction

with other agencies. The entire programme has emerged as a collaborative effort in which the Education Department through the State Council for Educational Research and Training (SCERT) works in close cooperation with TCR&TI. This ensures that development of instructional materials, development of literature, conducting pre-service and in-service training, programmes, assessment and evaluation procedures are developed in a systematic, coordinated manner. The TCR & TI's long years of research in anthropological facets of tribal life and SCERT's pedagogical expertise can become a very effective symbiotic basis for further collaborative research and innovations.

Secondly, the programme is community-centered with active involvement and ownership of the community at all stages. This ensures acceptability and sustained interest in further expansion and enrichment.

Thirdly, the learning materials are learner-centered and involve a variety of instructional materials including Alphabet charts, Big Book, listening stories which are rooted in the data and learning from the field. The materials are specifically based on the themes relevant to the learners.

Fourthly, preparation of teachers to adopt the new methodology and make it child-centered and contextualized has been effectively integrated into the process of curriculum development, making it easy for teachers to internalize the philosophy and understand the dynamics of the new pedagogical model. Introducing local languages as medium of instruction and local environment as the thematic anchor is likely to make teaching more activity based and engage the learners in a much more meaningful way.

Fifthly this project is being seen as a part of the larger EFA process and as an essential element of bringing the school and the community closer. The bridging process and transition from one language to another has also been given serious consideration, so that the tribals have a closer relationship with their roots and at the same time get mainstreamed into the larger world of expanding opportunities in life. It answers the concerns of some skeptics who have reservations about the policy of mother tongue instruction and see it as a ploy to keep tribals excluded and permanently disadvantaged.

Sixthly the entire innovation has given the power of decision making to tribal communities and is intended to offer wider educational opportunities to the tribal communities. It is a democratic process of empowering the tribal communities. It is a paradigm of curriculum development which has at its core a sound philosophical and theoretical basis and intends to achieve not only what the policy makers had envisaged five decades ago but also provide another opportunity for making education acceptable, relevant and equitable across the large system of disadvantaged areas and groups. The multi-lingual education gives recognition to tribal languages and cultures and imparts tremendous self-esteem and self-worth to these groups.

Conclusion: Lessons Learnt

The two major interventions outlined in the current paper demonstrate that the current challenge of EFA mission is essentially to reach the isolated populations. The crux of the entire exercise lies in identification of the gaps in development, understand the reasons

for 'exclusion' and 'isolation' of certain groups on all their multiple dimensions – physical, psychological, socio-economic, linguistic, cultural – and find creative ways to deal with the challenge of providing education in these areas for the disadvantaged groups.

The key element of the State strategy has been to search for alternative governance patterns where community involvement can enhance the demand for education, provide support to governmental initiatives and enhance the accountability in the system.

Simultaneously, it has been a search for various ways of contextualizing curriculum by reinventing the process of curriculum design. Instead of a State mandated, top – down, standardized curriculum, the State has experimented with a new paradigm in which the voice of the tribals became the starting point for weaving a curriculum framework around the life experience and life spaces of each ethnic group.

The new approach has evolved out of a very meaningful dialogue of the tribal communities and tribal teachers with experts, researchers and academics drawn from diverse disciplines from within India and abroad. A holistic plan to preserve the tribal languages and culture through textbooks, other literary materials and dictionaries has been evolved, restoring the tribal heritage its rightful place and given the self-worth it has been denied for so long. The choice of opting for the new curriculum and instructional materials has been left entirely to the tribal communities, underscoring the democratic principle of empowering communities rather than thrusting something on an unwilling group of learners.

Some of the learning that emerges from these experiences may be useful. Working in close collaboration with communities and being sensitive to the learning needs, appreciative of the richness of the cultural heritage of these ethnic groups and designing an educational programme with their active involvement and participation perhaps holds the key to reaching the cherished goal of EFA. The last mile as usual is the most difficult to trek but it is just that extra effort and sustained sensitive progression, which will certainly make a difference between success and failure in our mission.

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Appendix

Table A.1
Availability of Schooling Facilities (habitation-wise/population-wise)

Particulars	*2nd Survey 1965*	*3rd Survey 1973*	*4th Survey 1978*	*5th Survey 1986*	*6th Survey 1993*
Rural Population (in millions)	396.58	465.37	509.16	593.56	659.69
Rural Habitations	982251	953734	964664	981864	1060612
Habitations having primary schools within 1 Km.	673643	720809	773998	823117	884089
Percentage	68.58	75.58	80.23	83.83	83.36
Population served by Primary school up to 1 km (in millions)	342. 36	420.43	472.61	560.62	618.54
Percentage	86.33	90.34	92.82	94.45	93.76
Habitations served by Upper primary school within 3 kms	545138	542226	674971	726594	807656
Percentage	55.50	56.85	69.97	74.00	76.15
Rural population served by upper primary school within 3 kms. (in millions)	270.64	320.18	401.35	498.45	560.77
Percentage	68.24	68.80	78.83	83.98	85.00

Source: Government of India (2001)

Table A.2
Enrolment and Growth of Community Schools in Vishakhapattanam District

Year	*Number of schools*	*Student strength (Grades I and II)*
1991 - 92	15	350
1992 - 93	60	1300
1993 - 94	266	8459
1994 - 95	405	16544
1995 - 96	567	23367
1996 - 97	926	35914

Source: Sujatha K. (2000)

Table A.3
Community Schools in Andhra Pradesh

Percent of Parents Visiting the School

Frequency of visits	*Community schools*	*Other schools*
Frequently	67.12	11.97
Now and then	9.01	36.44
Never	23.87	51.59
Total	100.00	100.00

Community Members' Participation in VEC Meetings

Participating	79.24	21.14
Not participating	20.76	78.86
Total	100.00	100.00

Per cent of Teachers Regularly Attending School According to Community Members

Regularity	*Community schools*	*Formal Schools*
Regular attendance	84.95	28.06
Few days a week	8.13	59.97
Irregular attendance	6.92	11.97
Total	100.00	100.00

Students' Attendance Pattern in Different Schools

Type of school	*Percentage of attendance**		
	Boys	*Girls*	*Total*
Community schools	84.90	86.58	84.91
Single-teacher schools	77.49	75.83	76.61
Ashram schools (residential)	80.43	73.70	76.54
Other-management schools	75.50	77.38	76.32

* Attendance for only sample schools (139)

Drop-out and Repetition in Sample Schools (in per cent children)

	Grade I			Grade II		
	Community schools *	*Formal Schools***	*Aided Schools****	*Community schools*	*Formal schools*	*Aided Schools*
Enrolment	100.00 (763)	100.00 (189(	100.00 (298)	100.00 (96)	100.00 (1253	100.00 (221)
Promoted	21.62 (165)	47.41 (896)	50.6 (151)	59.37 (57)	76.69 (961)	68.32 (151)
Repeated	72.35 (552)	43.65 (825)	44.9 (134)	22.92 (22)	16.28 (204)	26.24 (58)
Drop-out	6.03 (46)	8.94 (169)	4.5 (14)	17.71 (17)	7.03 (88)	5.44 (12)

* Number of sample community schools: 58.
** Number of sample formal schools: 77 (includes all categories)
*** Number of sample aided schools: 58
Note: The numbers in parentheses are the actual number of children in the sample schools.

Learners' Achievement (Grade I)

Type of school	*Mean score percentage*		*Number of students*
	Language	*Mathematics*	
Community schools	34.93	28.76	711
Single-teacher schools	37.26	32.74	518
Ashram schools	38.33	31.98	162
Other schools	45.10	45.28	581
For all schools (Total)	38.82	34.94	1972

Number of sample schools: 139

Teachers' Educational (General) Qualification (in per cent of total teachers in the sample)

No. of years' education	*Community schools**	*Single-teacher schools**	*Ashram schools***	*Other (.) management schools***
Five	2.16 (20)	0.00 (0)	0.00 (0)	0.00 (0)
Six	4.43 (41)	0.00 (0)	0.00 (0)	0.00 (0)
Seven	5.51 (51)	0.00 (0)	0.00 (0)	0.00 (0)
Eight	3.02 (28)	0.00 (0)	0.00 (0)	0.00 (0)
Nine	5.83 (54)	2.63 (13)	7.10 (1)	4.28 (3)
Ten	63.07 584)	50.60 (251)	42.90 (6)	24.28 (17)
Twelve	15.23 141)	25.20 (125)	21.40 (3)	22.86 (16)
Undergraduate	0.75 (7)	19.96 (99)	21.40 (3)	38.58 (27)
Postgraduate	0.00 (0)	1.61 (8)	7.10 (1)	10.00 (7)
Total	**100.00 (926)**	**100.00**	**100.00 (14)**	**100.00 (70)**

* For all schools
** For only sample schools
(.) Government and aided schools
Note: The numbers in the parentheses are the number of teachers in the sample schools.

Teachers' Educational (Professional) Qualification *(in per cent of total teachers in the sample)*

Training qualification	*Community schools**	*Single-teacher schools*	*Ashram schools*	*Other (.) management schools*
Untrained	100.00 (926)	5.24 (26)	14.30 (2)	10.00 (7)
TTC *	0.00 (0)	91.13 (452)	78.36 (11)	44.28 (31)
B.Ed **	0.00 (0)	2.83 (14)	7.10 (1)	38.58 (27)
M.Ed ***	100.00 (926)	0.80 (4)	100.00 (14)	7.14 (5)

* TTC: Teacher Training Certificate
** B.Ed.: Bachelor of Education
*** M.Ed.: Master of Education
Note: The numbers in parentheses are the number of teachers in the sample schools.

Criteria of Selection of Teachers According to Community Members

S. No.	*Opinion*	*% of teachers*
1	Has ability to teach children	24.9
2	Belongs to same village	25.2
3	Belongs to same community	17.1
4	Had approached to improve education in the village	31.5
5	No response	1.3

Source: Sujatha, K (2000)

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Compulsory Education in the United Kingdom

Historical, Comparative and Contemporary Perspectives

David Crook*

Abstract

This article discusses the contentious introduction and extension of compulsory education in the United Kingdom, focusing principally on the nineteenth and twentieth centuries, also highlighting recent and current policy developments affecting the lower and upper ages of compulsion. A comparative dimension is included, both in respect of differing traditions and histories of the four countries of the United Kingdom and of wider European and global developments.

Introduction

As long ago as 1496, during the reign of James IV of Scotland, an Act of the Scottish Parliament declared that all barons and freeholders should compulsorily send their sons and heirs to grammar schools until the age of eight or nine, until they had mastered 'perfite latyne'. The measure was aimed only at the most privileged section of the Scottish population and was un-enforceable; owing the shortage of suitable schools, but the episode nevertheless represented the earliest British attempt to introduce a measure of compulsory education (Strong, 1909, p. 32).

During the past 200 years, British interest in compulsory education may be divided into three phases. The first of these phases, to 1892, witnessed protracted debates about the desirability of compulsion. The second phase saw the period of compulsory schooling repeatedly extended until the present minimum school-leaving age of 16 was achieved in 1973. Since that time, two arguments have reigned: first, about whether the school-leaving age should be reduced or extended further and, second, about whether children should be required to start school before the traditional starting age of five. The recent thrust of British Government policy has been to provide learners and their families with financial incentives to commence formal learning before the compulsory starting age and to remain in education or training beyond age 16.

* School of Educational Foundations and Policy Studies, Institute of Education, University of London, 20 Bradford Way, London WC1H OAL, UK. E-mail: d.crook@ioe.ac.uk

The remainder of this article is divided into six sections. The next section provides a brief outline of state education in the UK at the present time. This is followed by a discussion of how compulsory education is understood and enforced. The article then charts the introduction, and then the extension, of compulsory education in the UK. Some controversies and debates from the past three decades are then outlined. Finally, some concluding points.

The United Kingdom and its Education Systems

The United Kingdom (UK) – strictly the United Kingdom of Great Britain and Northern Ireland – was created in 1920 after 'Home Rule' was granted to the Republic of Ireland or Eire. Thus, the UK comprises four countries: England, Scotland, Wales and Northern Ireland. Each of these countries has its own distinct history and traditions. The story of education in these four countries is partly a shared history, most especially between England and Wales, but one that is also characterized by patterns of variance. Even if it were not subject to the significant influences of social class, religion, gender, race and urban-rural dimensions, the task of capturing the 'British' experience of education would be near-impossible due to the numerical – and cultural - dominance of the English. According to 2003 figures compiled by the Office for National Statistics, shown in Table 1, the UK population is currently constituted as follows:

TABLE 1

Countries of the UK by Population and Percentage of Total UK Population, 2003

Country	*Population*	*Percentage of UK Population*
England	49,855,700	83.7
Scotland	5,057,400	8.5
Wales	2,938,000	4.9
Northern Ireland	1,702,600	2.9

Source: Office for National Statistics

The trend, since the 1990s, towards devolved Government – evidenced by the establishment of a Scottish Parliament and national assemblies for Wales and Northern Ireland – has accentuated different approaches towards common educational issues in the UK, where no single central Government ministry holds sway. In England, the country in which most British pupils, students and teachers are located, education matters are decided by a powerful Department for Education and Skills. A less centralized approach is followed elsewhere by the National Assembly for Wales' Training and Education Department, the Scottish Executive's schools and lifelong learning departments and the Department of Education for Northern Ireland. Differences in philosophy, as well as policy and practice, are manifest in the four countries' approaches to such matters as curriculum, assessment, school inspection and the funding of higher education. Such variations have been highlighted in recent comparative 'home international' analyses within the UK (for example Raffe et al, 1999).

Compulsion and its Enforcement

It may be regarded as a curiosity of British education that while education is compulsory, schooling is not. The 1944 Education Act, strictly extending only to England and Wales but mirrored in legislation for Scotland and Northern Ireland, required children to have an 'efficient full-time education suitable to his [sic] age, ability and aptitude, either by regular attendance at school or otherwise' (quoted in Maclure, 1968, p. 225). The Act, which remains in force, did not specify what a 'suitable' education should include.

British 'de-schooling' or, as it is more frequently now called, 'home-schooling', has a long, but largely unrecorded history. Certainly there were British followers of Ivan Illich and John Holt in the 1970s, but Sean Gabb has pointed to several key literary figures from an earlier generation who were educated predominantly at home, rather than in school: Noel Coward, Agatha Christie and C.S. Lewis, for example (Gabb, 2004). The number of parents choosing to educate their children in the family home has been rising for at least 20 years. In 1985 around 8,000 school-age children were estimated to be home educated. By 1999, actual Government figures indicated a figure of 12,000 and, by 2004, this had soared to 21,000 (*The Times*, 4 September 1985; *Sunday Times*, 26 June 2005). Support for parents wishing to follow this path is available both from charities and libertarian organizations. With the growth of the Internet, conference-call technology is beginning to create a virtual community of home schoolers within the UK and at an international level.

With the exception of those living in Northern Ireland, British children who are not home educated must begin their full-time education – if they have not done so already – in the term following their fifth birthday. Since 1989, Northern Irish children reaching the age of four on or before 1 July must start primary school on 1 September that year. No other country listed in Table 2 begins compulsory education so early. At age 11, most British state-educated children – around 93 per cent of the full age cohort - move from a primary to a secondary school, though the transfer age is 12 in Scotland and a range of anomalies are to be found in English localities with three-tier schooling systems comprising lower, middle and upper schools. Throughout their school lives, children encounter statutory curricula, although the misleadingly-named National Curriculum only applies to state schools in England and Wales. The requirement to be educated ceases on the last Friday in June of the school year in which British children reach the age of 16, later than may countries, but earlier than Belgium and Germany, where 15-year-olds who do not continue full-time studies are subject to a further three years of compulsory part-time education.

Historically, school attendance has been difficult to enforce in the UK. For much of the nineteenth century, for example, school attendance registers confirmed a higher rate of girls' non-attendance on Mondays, the traditional 'wash day' when mothers' time was most stretched in combining household chores with caring for infant children. Times and explanations for non-attendance have changed, with new difficulties arising: recently commercial holiday companies and airlines have been much criticized for offering cheap

family holidays during school terms and imposing additional charges during school vacations.

TABLE 2

Duration of Compulsory Education in Selected Countries, 2002

Country	*Age at which compulsory education commences*	*Age at which compulsory education ends*
Australia	6	15
Austria	6	15
Belgium	6	18
Canada	6	16
Czech Republic	6	15
Denmark	7	16
England, Scotland and Wales	**5**	**16**
Finland	7	16
France	6	16
Germany	6	18
Greece	6	15
Hungary	6	16
Iceland	6	16
Ireland	6	15
Italy	6	15
Korea	6	14
Luxembourg	6	15
Mexico	6	15
New Zealand	6	16
Northern Ireland	**4**	**16**
Norway	7	16
Poland	7	15
Portugal	6	14
Slovak Republic	6	16
Spain	6	16
Sweden	7	16
Switzerland	6	15
Turkey	6	14
United States	6	17

Source: Department for Education and Skills

In its first administration, between 1997 and 2001, the current Labour Government, headed by Prime Minister Tony Blair, failed to meet its target of reducing pupil truancy in England by one third. Official figures indicate that around 7.5 million school days per

year are lost to unauthorized absence and it has been estimated that, on any given school day, some 50,000 pupils are out of school without any acceptable reason. Over the past two years, the Government has returned to the nineteenth-century example of punishing the parents of truanting children. Courts are currently able to impose fines up to a maximum of £2,500 or custodial sentences of up to three months. In 2004, for example, a mother was sentenced to 20 days' imprisonment after her son had missed 85 per cent of school classes during a three-month period. The woman was released early, having served half the sentence (*Evening Standard*, 10 March 2004).

Today's zero-tolerance approach to truancy by the authorities contrasts with some examples from the past. Woltz (1955) recalls the 1884 *London School Board v. Duggan* legal case, when the father of a twelve-year-old girl, the eldest of seven children, was acquitted. On this occasion, the judge ruled that the girl's work as a nursery maid, for which she was paid three shillings a week, was essential to the family budget and provided a 'reasonable excuse' for not attending school (Woltz, 1955, pp. 18-19).

Historical Demands for Compulsory Education, c.1800-1892

Mass schooling developed in a broadly similar way in each of the countries of the UK. The State progressively relieved charities and parishes of financial responsibility for maintaining schools and emerged as the senior partner, alongside local authorities and sometimes churches, exercising control over the schools. For much of the nineteenth century, when an admiration for *laissez-faire* government remained strong, few politicians were prepared publicly to argue that the State should go beyond offering subsidies to schools run by the churches. Utilitarian thinkers, the most famous of whom was Jeremy Bentham, became enthusiasts for national schooling only after concluding that the social and monetary costs to the State of an uneducated population exceeded those associated with schooling. With court records repeatedly showing that the vast majority of prisoners had received little or no education, a consensus developed that it would 'be better, more economical, to pay the schoolmaster than to pay either the relieving officer, the policeman, or the gaoler' (Alderman Bennett, President of the Education Aid Society, quoted in *The Times*, 13 December 1866). A *Times* correspondent reported that, after 'compulsory laws, requiring every parent to educate every child, were enacted in Prussia . . . in 12 years crime and pauperism had diminished 40 per cent' (letter by John MacNaught, *The Times*, 17 January 1870). It was many more decades, however, before British governments began to speak of education in terms of an investment, rather than focusing on its costs. Indeed, it is, perhaps, not until the 1960s that this became an orthodox view.

Notwithstanding the predominant influence of Protestantism which, since the Reformation, was a driving force for compulsory school attendance in the West (see Kleinberger, 1975, p. 219), Britain was unenthusiastic about following this path. Legislation of 1833 required children working in factories to receive two hours of instruction per day, but few wished to see the principle extended. An 1834 editorial in *The Times* dismissed the idea of compulsory school attendance as 'intrusive meddling'

that would appeal only to 'despotic' countries (*The Times*, 11 November 1834). Thus, for most of the nineteenth century, elementary schooling was accessed only by the children of families willing to pay for it.

An untypical perspective was provided by Matthew Arnold, the poet, school inspector and eldest son of Rugby School's celebrated headmaster, Dr Thomas Arnold. In 1853, he wrote, "it is not the high rate of payments which deters parents from sending their children to a school, but their suspicion that the education they get there is not much worth having", for "What is cheap . . . is always supposed by these poor people to be bad". In consequence, Arnold lamented that "of the education of the masses, I, in the course of my official duty, see, strictly speaking, little or nothing" (Board of Education, 1908, pp. 18-19). He was clear about the way forward: "it is my firm conviction that education will never, any more than vaccination, become universal in this country, until it is made compulsory" (Board of Education, 1908, p. 23).

The unwillingness, or inability, of many families to forego the earnings of their children provided a practical reason for parents not to send their children to school, but compromises were sometimes reached. In parts of the north of England and the Midlands, most notably in textile and mill towns, a half-time system of education permitted children to combine earning with learning. Nevertheless, the Newcastle Commission inquiry into the state of popular education in England reported in 1861 that 87.5 per cent of the English school-age population did not go to school and that most of these children were in employment (Ellis, 1973, p. 313). School registers from this period confirm the pattern: of the children who did go to school, few attended for more than three years and, by the age of eight or nine, they were frequently in regular employment (Smelser, 1991, pp. 258-59). In what has become one of the best-known quotations from the history of British education, one of the Newcastle Commissioners' witnesses, the Reverend James Fraser, outlined the case for working-class schooling to be brief, cheap and useful, noting that

> Even if it were possible, I doubt whether it would be desirable, with a view to the real interests of the peasant boy, to keep him at school till he was 14 or 15 years of age. But it is not possible. We must make up our minds to see the last of him, as far as the day school is concerned, at 10 or 11 (quoted in Aldrich, 1996, p. 10).

Fraser's view was supported in the Report, which rejected the case for Prussian-style compulsory education:

> An attempt to replace an independent system of education by a compulsory system, managed by the Government, would be met by objections, both religious and political.... And, therefore, on the grounds of a long-established difference between our own position and that of the countries where a compulsory system is worked successfully; on the grounds of the feelings, both political, social and religious, to which it would be opposed; and also on the ground that our education is advancing successfully without it, we

> have not thought that a scheme for compulsory education to be universally applied in this country can be entertained as a practical possibility (quoted in Maclure, 1968, p. 75).

The path to compulsion was trodden slowly, but in 1867 Matthew Arnold reported more enthusiasm among those to whom he spoke during his inspections. Again pointing to the Prussian model, where 'education is not flourishing because it is compulsory', but rather 'it is compulsory because it is flourishing', he maintained that

> . . . people there really prize instruction and culture, and prefer them to other things, therefore, they have no difficulty in imposing on themselves the rule to get instruction and culture. In this country [England], people prefer to them politics, station, business, money-making, pleasure, and many other things; and till we cease to prefer these things, a law which gives instruction the power to interfere with them, though a sudden impulse may make us establish it, cannot be relied on to hold the ground and to work effectively (Board of Education, 1908, p. 117).

The Times was unmoved, remaining of the view that compulsory education 'is . . . foreign to the temper of the country, and would provoke opposition where co-operation is desirable, and there are not enough good schools to receive the children' (*The Times*, 1 September 1868).

It was the provision of more good schools to 'fill up the gaps' in voluntary provision that lay at the heart of the 1870 Education Act for England and Wales. Local bodies, called school boards, were to be constituted in areas with no church school. The school board was then charged with responsibility for establishing an elementary school or schools. 'Upon the speedy provision of elementary education depends our industrial prosperity', declared the promoter of the Act, W.E. Forster, in Parliament (*Hansard*, House of Commons, 17 February 1870). During the passage of the parliamentary bill there was lengthy consideration of whether schooling should begin at the age of five or six, with a small body of support even favouring four. Specific age limits for schooling were not included in the 1870 Act, though school boards were required to develop by-laws permitting the attendance of children 'not less than 5 years and no more than 13 years' (quoted in Szreter, 1964, p. 23). In 1872, Scotland made schooling from age five compulsory via legislation that was more radical than the Forster Act, but which stopped short of abolishing fees. Forster's cautious objective had been to build schools first and to fill them afterwards, but, in the words of Nigel Middleton, he 'had framed a deceptively mild measure, so that he could introduce the tip of the wedge of universal compulsory education' (Middleton, 1970, p. 173).

Further progress came in 1876, with the passing of an Elementary Education Act that altogether prevented the employment of children under the age of ten and saw the establishment of attendance committees in every school board district. Four years later, by the terms of the 'Mundella Act', it became a requirement for parents to send their

children to school. But attendance statistics significantly increased only after 1891, when fees, often referred to as the 'school pence', were abolished, bringing England and Wales into line with Scotland's move two years earlier. The Mundella Act had envisaged a system of elementary education from five to 13, but, as was the case north of the border, it allowed children who had passed 'Standard Five' - 'Grade Five' in Scotland - examinations to leave school as early as age ten. In practice, very few working-class children were still in school anywhere in Britain by age 13. In 1883, Scotland nominally introduced compulsory education to 14, abolishing fees at the same time, but the loophole of exemptions was not completely closed until 1908. The pattern for Irish education also demonstrated more ambition than that for England and Wales: free, compulsory schooling to 14 was introduced in 1892, though beginning at age six – unchanged to this day in Eire - rather than five.

Extending the Period of Compulsory Education, 1893-1972

The half century between the 1890s and the end of the Second World War witnessed a succession of legislation focused on raising the minimum school-leaving age. In 1893, English and Welsh schools became subject to legislation preventing children from leaving before age 11, rising to 12 in 1899. But it was Scotland that forged furthest ahead in the years before World War One. 'By 1910-11', according to Houston and Knox, 'Scotland had more children in the age group five to fourteen attending school than all other north-west European countries except France' (Houston and Knox, 2001, p. xliv). In England and Wales, the 1918 'Fisher' Education Act, raised the leaving age from 12 to 14 and, subsequently, by the terms of the 1944 'Butler' Act, it was extended to age 15 in 1947. Scotland and Northern Ireland proceeded similarly, with legislation enacted respectively in 1945 and 1947. The latter country was slowest to move to a leaving-age of 15, not implementing this until 1957. Finally, the 1972-73 school-year witnessed the raising of the school-leaving age to 16 across the whole of the UK.

For the greater part of the nineteenth century, the suggestion that schooling should become compulsory met with resistance from those who benefited from cheap child labour in the factories and fields. Educational and employment legislation heralded important progress, but historians have shown that figures appearing on school registers and average daily attendance statistics were frequently, and significantly, at odds (for example, Ellis, 1973, p. 315). Well into the twentieth century, there remained anxieties about the effects of compulsory schooling upon rural communities. In 1938, in a letter to *The Times*, a Yorkshire farmer supported calls for a Royal Commission to investigate ways in which rural life might be regenerated. The era of compulsory schooling, the correspondent contended, had 'coincided with a marked rural exodus and a disappearance of rural craftsmanship' (letter by A.W. Carter, *The Times*, 1 November 1938). Concerns from employers' organizations and those fearing teacher shortages accompanied every extension of compulsory schooling until the middle of the twentieth century.

The English and Welsh Education Acts of 1918 and 1944, both contemplated systems of continuation classes, combining part-time education with work-based training. This

cost-effective approach promised to assuage critics who viewed extended instruction as an expensive luxury. On both occasions, however, it foundered for want of public start-up funds, betraying the low status accorded by the British to technical and vocational education (see Barber, 1994, pp. 2, 119).

The inter-war years saw calls for compulsory schooling to end at 15, though it was the view of Dr John Scott Lidgett, leader of the London County Council's Progressive Party and the country's leading Methodist theologian, that children 'ought not to go into the market at a tenderer age than 16' (*The Times*, 7 October 1924). At the end of 1926, the Hadow Committee recommended the introduction of schooling to age 15 no later than 1932-33 (Board of Education, 1927, 148), prompting a succession of public meetings and deputations to press the case. Lord Eustace Percy, Conservative President of the Board of Education between 1924 and 1929, offered little encouragement (Griggs, 2002, 19), but Sir Charles Trevelyan, his Labour successor, was an enthusiast. Within a twelve-month period, in 1929-30, Trevelyan introduced no fewer than three parliamentary bills to raise the school-leaving age to 15. The first two bills were withdrawn amid concerns from the Treasury about the affordability of pupil maintenance allowances and from others about the eligibility of pupils in church schools to receive them (see Simon, 1974, pp. 160-67). Against the backdrop of an ever-worsening economic crisis, the third bill was comprehensively rejected by the House of Lords, leading Trevelyan to resign from frontline politics.

Extended schooling was an issue that would not go away, however. By 1936, British economic and sectarian circumstances seemed more favourable and a new education bill was introduced by Oliver Stanley, the Conservative President of the Board of Education. It was estimated that the measure would require a further 2,500 teachers and many more extra buildings, so implementation was scheduled for the 1939-40 school year. Controversially, but consistent with the British tradition, the 1936 Education Bill included an exemption clause, permitting children who obtained 'beneficial employment' to leave school after their fourteenth birthday. Although it was criticized, on the one hand, by those who thought that the poorest class of children would be open to exploitation from unscrupulous employers (Griggs, 2002, p. 32), and by others who stressed industry's need for juvenile labour, the Bill did not run into the kind of difficulties that had thwarted Trevelyan's efforts. It passed into law in the summer of 1936, presenting a difficulty for a government committee that had, since 1933, been considering the future of secondary education. The Spens Committee, whose report was published in 1938, looked to the development of a tripartite, separate-but-equal, system of secondary grammar, modern and technical schools. If the objective of parity between these schools were to be achieved, the Spens Report noted, the minimum leaving age would have to be the same for all schools. It followed that, as 16 was already the minimum age at which children left grammar schools, harmonization of 16 as the leaving age for all secondary schools 'must even now be envisaged as inevitable' (Board of Education, 1938, p. 311). That was for the future. More immediately, educationists looked to the implementation of the 1936 Act in the context of the worsening international situation. On the very day the

school-leaving age was to have been raised to 15–1 September 1939 – German tanks rolled into Poland, causing the immediate abandonment of the scheme.

The Second World War precipitated bold visions for social reform in a range of countries touched by the conflict, including the UK (see Marwick, 1974). In respect of education, British plans to extend learning opportunities touched infants, as well as teenagers, and officially underlined, for the first time, a commitment to the principle of secondary education for all. A Government White Paper of 1943, the substance of which was to be incorporated into the Butler Act of the following year, stated that:

> For children below the compulsory age of 5 there must be a sufficient supply of nursery schools. The period of compulsory school attendance will be extended to 15 without exemptions and with provision for its extension to 16 as soon as circumstances permit. The period from 5 to the leaving age will be divided into two stages, the first, to be known as primary, covering the years up to about 11. After 11, secondary education of diversified types but on equal standing will be provided for all children. . . . When the period of full-time compulsory schooling ends, the young person will continue under educational influences up to 18 years of age either by remaining in full-time attendance at a secondary school, or by part-time day attendance at a young person's college (Board of Education, 1943, p. 3).

R.A. Butler, who was elevated from the position of President of the Board of Education to Minister of Education by the terms of the 1944 Act, wished to extend compulsory schooling to 15 almost immediately, delivering what had been promised in the 1936 legislation. But less than two weeks after the Act had reached the statute book, he was forced to announce a delay, conceding that there were insufficient premises or teachers. The timetable for implementation would have slipped still further had Ellen Wilkinson, the first Education Minister in Clement Attlee's Labour Government of 1945-51, not determinedly won over fellow Cabinet ministers who questioned whether it could be in the national interest to deprive industry of a cohort of trainees at a time of labour shortages (Aldrich et al, 2000, p. 113; Griggs, 2002, p. 170). In England, Wales and Scotland, 15 became the school-leaving age with effect from 1 April 1947.

Thanks to the monumental Hutting Operation for Raising the School-Leaving Age (HORSA), temporary accommodation for an additional 146,445 children was provided between April 1945 and June 1949 (Morton, 1997, pp. 181-82). The HORSA huts, much criticized by architects for their asbestos roofs and metal windows, were rapidly erected by soldiers and were expected to be replaced by permanent buildings within ten years. Some 60 years later, many are still in use as classrooms today: at the end of 2004, it was reported that more than 50 HORSA units were in use in North Yorkshire alone (*Yorkshire Post*, 20 December 2004). In concert with the hutting initiative, an emergency training scheme produced around 35,000 teachers between 1945 and 1951, selected mainly on the grounds of personality, rather than paper qualifications, and trained in just one year (Board of Education, 1944; Crook, 1997).

The HORSA and emergency training scheme initiatives fuelled unrealistic hopes among some that a leaving age of 16 could be implemented as soon as 1951. In fact, it was a further quarter of a century before this came to pass. During these years, the 1959 Crowther Report on the education of 15-18 year olds called for the extra year of compulsory schooling to be introduced at a favourable moment sometime between 1965 and 1969. A note of reservation by nine Committee members sought to revive the British tradition of exceptions, however. It was felt that the interests of physically-advanced boys would best be served 'not by full-time attendance at any educational institution, but by hard work in an adult but understanding environment' (Ministry of Education, 1959, 133, pp. 147-48). There was no official government response to the recommendation, prompting impatience in some quarters. Four years later, the report of the Newsom Committee on secondary education called for an immediate Government announcement so that the measure could be implemented in 1969-70 (Ministry of Education, 1963, p. 9). Again, there was silence from Westminster.

The additional year of schooling seemed to come into view with the election of Harold Wilson's Labour government. 1970-71 was initially identified as the year for implementation, but other educational objectives, particularly the significant expansion of the higher education sector, were to take precedence. A package of economic cuts in 1968 delivered the killer blow and it fell to a Conservative government, with Margaret Thatcher as Education Secretary, to finally implement the 1944 promise of compulsory education to 16. This took effect from 1972-73, some 25 years after the stopgap rise to age 15.

More or Less Compulsory Schooling? Controversy and Debate, 1973-2005

With the project of compulsory schooling to 16 realized, other concerns dominated British education debates during the early part of the 1970s. Secondary education became especially mired in arguments about whether the shift towards non-selective, comprehensive, education had delivered the gains that its supporters had promised in the previous decade. A speech by the-then Labour Party Prime Minister, James Callaghan, launched a 'Great Debate' on education in 1976-77 and, against a background of unfavourable portrayals of comprehensive schools, especially on television; the school-leaving age was again discussed. This time, however, the focus of debate surrounded whether it should be lowered, rather than raised. The editors of a 1977 edited volume, the fifth in a series of so-called *Black Papers* on education, pressed for a leaving examination at ages 14 or 15, so that numerate and literate teenagers wishing to leave school could do so. Such a scheme, they suggested, would offer the double benefit of encouraging truanting teenagers to attend school and of raising the educational standards of those entering the workplace (Cox and Boyson, 1977, p. 8).

Rhodes Boyson, joint editor of that collection, a former comprehensive school head teacher who had become a Conservative Member of Parliament in 1974, found favour with Margaret Thatcher after she became Conservative Party leader in 1975. Subsequently, during the first term of Thatcher's premiership, between 1979 and 1983,

Boyson served as a junior education minister. These years saw no official departure from the Conservative Party's support for compulsory schooling to 16, over which Thatcher herself had presided, but there is evidence to suggest that Boyson's views about early leaving at 15, even 14, were shared by some other senior Conservatives, including Lord Young, a government minister with youth training responsibilities (see *The Times*, 29 May 1985).

All thoughts of lowering the school-leaving age or, more conceivably, of resurrecting the idea of beneficial exemptions, seemed to be ended by the 1988 Education Reform Act. A central feature of the Act, which applied to England and Wales, was that there should be a national curriculum for state schools, to be followed by pupils between the ages of five and 16. By the mid-1990s, however, the final 'key stage' of the National Curriculum, covering ages 14 to 16, had become less prescribed in the wake of a detailed review that encouraged vocational options to run alongside the traditional academic pathway. Some critics seized on this scaling down of the curriculum to propose a more radical move.

The most influential figure from this period was the-then Chief Inspector of Schools, Chris Woodhead. Pointing to the 40,000-plus pupils in English schools who left each year without any qualifications, and to high truancy rates among 14-16 year-olds, in 1998, Woodhead maintained that these young people 'are alienated and disaffected and they get in the way of other children. . . . They would be better off if they were offered a different sort of training or education in an environment that appealed to them'. Margaret Hodge, at that time Labour Chair of the House of Commons Select Committee on Education – later to become an education minister - saw merit in the idea of reducing the length of compulsory schooling, though not compulsory education. Some 14-year-olds, she agreed, might gain by transferring at 14 from their school to a workplace apprenticeship on condition that they continued to follow public examination programmes in mathematics and English (*Sunday Times*, 26 July 1998). This view was recently echoed by Dr Ken Boston, the Australian appointed Chief Executive of the Qualifications and Curriculum Authority in 2002. In Boston's view, at least 100,000 current secondary school pupils would benefit by spending their final two years of compulsory education in the workplace than by following courses in school for public examinations which they are likely to fail (*Evening Standard*, 23 August 2004).

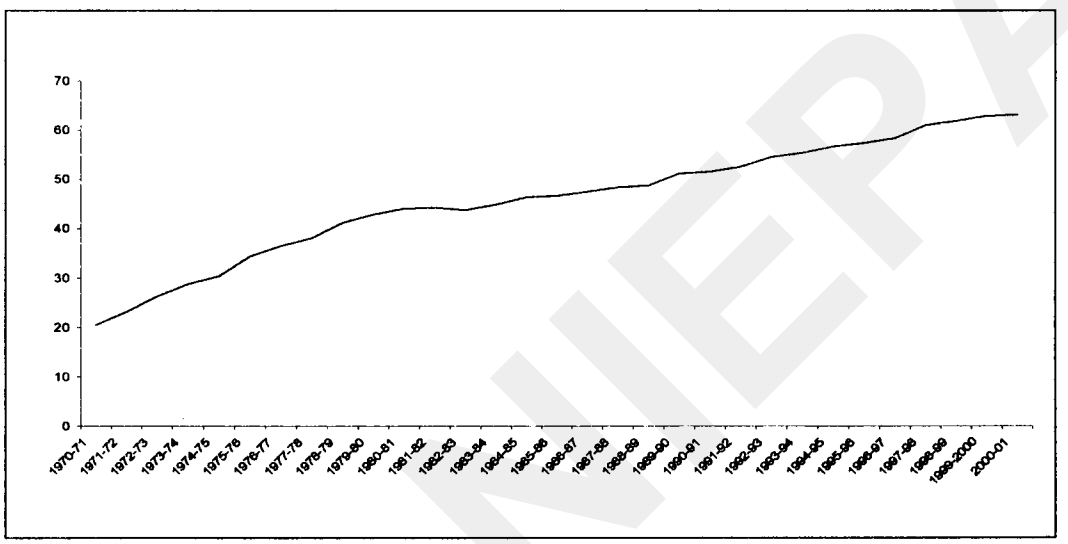
Tony Blair has been unmoved by such arguments. Indeed, his governments have provided a series of financial incentives designed to encourage formal learning to start earlier and finish later than the periods legally prescribed for compulsory education.

Substantial investment in early years education over the past eight years has made possible the offer of free nursery education to parents of four-year-olds in England and Wales, extending also to three-year-olds in England. The government has been heavily swayed by research evidence that nursery education 'works', both as an induction to formal schooling (see *Independent*, 26 November 2004) and as a means of encouraging parents – mothers, in particular – to seek paid employment, thus becoming tax-payers, rather than the recipients of welfare benefits. As Figure 1 shows, however, this strategy

confirms a trend rather than marking out a new departure. Across the UK, the proportion of three- and four-year-olds attending school has been increasing steadily for more than three decades.

FIGURE 1

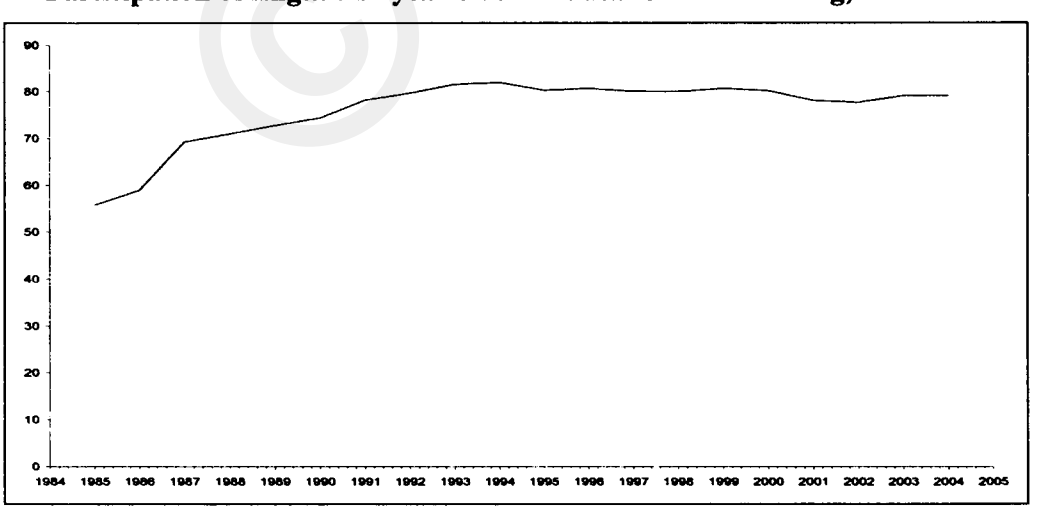
UK Children Under Five in Schools as a Percentage of All Three and Four Year Olds, 1970-71 to 2001-02



Source: Office for National Statistics

FIGURE 2

Participation of English 17-year-olds in Education and Training, 1984-2004



Source: Department for Education and Skills

Without involving any legal change in the age at which children must begin their education, there can be little doubt that politicians' and public expectations about children's readiness for starting school have subtly changed in recent years. This continues to be a fast-moving policy area: by the end of the present decade, the Government has pledged a free nursery place to parents of two-year-olds.

At the upper end of British compulsory education, the Blair government is similarly aiming to change expectations. The significant majority of 16-year-olds currently proceed to further courses – whether academic or vocational – at school, in a college or, apprenticeship-style, in both workplace and institutional settings. Without formalising continuation education in the way that was envisaged in Britain after both major wars of the twentieth century – and which is now to be found in Belgium and Germany – Figure 2 shows that English participation rates for 17-year-olds in full-time education and training significantly improved in the late 1980s and early 1990s.

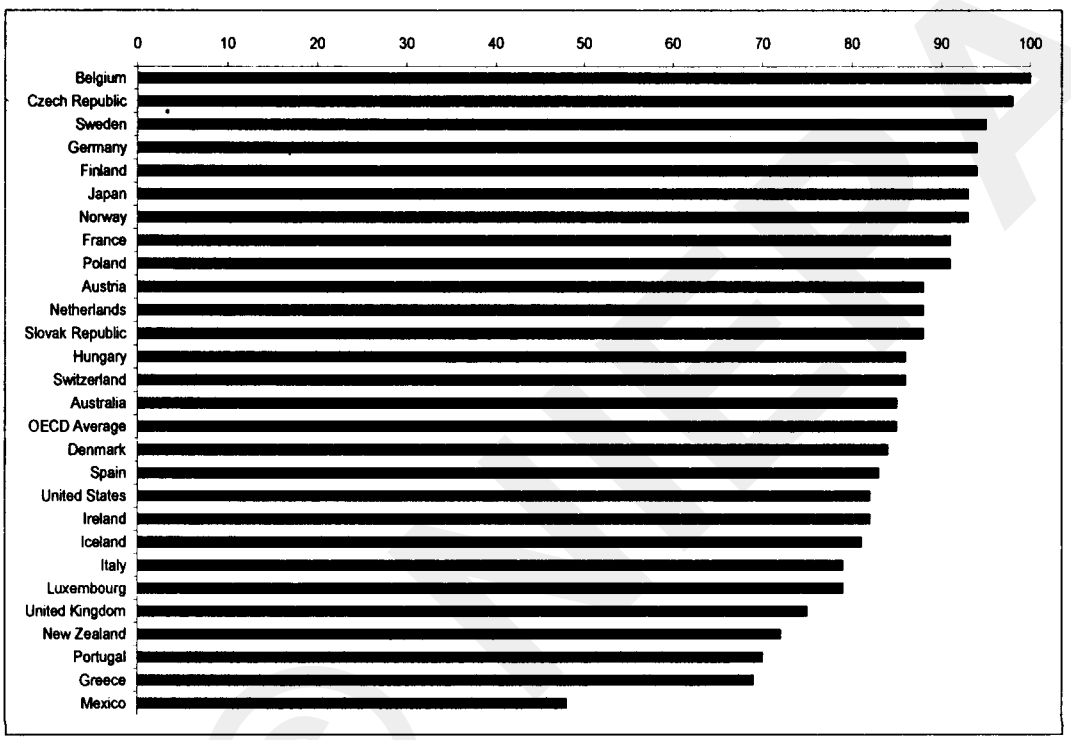
But, importantly, the graph also confirms that progress has not been maintained into the twenty-first century. A 2002 survey of this measure by the Organization for Economic Co-operation (OECD) placed the UK 24th out of 28 leading countries, lagging behind even the OECD average (see Figure 3). Introducing a recent policy document, setting out the British Government's plans to improve the skill attainments of 14-19 year-olds (DfES, 2005), Ruth Kelly, Secretary of State for Education and Skills, told the House of Commons that she wished to 'end the scandal of our low staying-on rate at 17, increasing it from 75 per cent to at least 90 per cent over the next decade – effectively making the current school-leaving age a thing of the past' (*Hansard*, House of Commons, 23 February 2005).

History offers an explanation for the UK's record of participation in tertiary education. For much of the twentieth century, teenagers found it relatively easy to obtain a job or secure an apprenticeship, even when they possessed few, or no, paper qualifications. Those days of plentiful heavy industry and manufacturing jobs are long since gone, but the absence of a tradition of 'staying on' in education among working-class communities continues to exert an effect on the advice that parents, and even teachers, pass on to school-age children. Blair has sought to replace this discourse with another, shifting attention away from those who continue in education and training and towards those who 'drop out'. Rallying his party faithful at Labour's 2004 Spring Conference, the Prime Minister pledged

> No dropping out at 16, every young person either staying on in the sixth form or on a modern apprenticeship or job-related training leading to a good career. In effect, we want to make irrelevant the official school leaving age of 16. We want every young person to want to stay in education or training until they are at least 18 or 19, developing their talents to the full (Blair, 2004).

FIGURE 3

Percentage of 17 Year-olds Participating in Education and Training in a Range of Countries, 2002



Source: Organization for Economic Co-operation and Development; Department for Education and Skills

The popularity of free nursery education is derived in part from a reconfiguration of taxation and welfare benefits that provide a real incentive for mothers to return to the workplace. Financial inducements of a different kind, taking the form of means-tested Educational Maintenance Allowances, of up to £30 per week, have recently been introduced to encourage teenagers from low-income families to continue in education or training beyond age 16. This surreptitious approach to extending compulsory education is not without controversy. Some of the country's most successful role models, among them the entrepreneurs Sir Alan Sugar and Sir Richard Branson, the actress Sophie Okenedo and Delia Smith, the television cook, all left school at 16 (*Independent*, 27 February 2005). Also, given that teenage truancy rates have risen since the Labour Party took office in 1997; some doubt must be cast upon the government's capacity to enforce attendance beyond age 16.

Conclusion

Six concluding points are offered here. They address the historical development of compulsory education in the UK, current priorities, politics, social expectations, industrial anxieties and personal autonomy.

The first point is that, in the UK, the project of securing and extending compulsory education proved difficult to accomplish and was embraced less enthusiastically than in some other countries. Its appeal to continental Europeans – Prussians, in particular - was, in itself, sufficient reason for resisting it in the eyes of many nineteenth-century Britons. For decades, compulsory education was presented as an intrusive, unnecessary and costly idea that would curtail British freedoms and damage the economy. Even after compulsory education was secured, the sense remained – in England, particularly - that any further upward adjustment of the school-leaving age would be an expensive luxury. This explains the repetitive twentieth-century pattern of delay and postponement, of beneficial exemptions and inadequately-resourced plans for continuation education.

Notwithstanding its hesitant antecedence, today, British children's eleven years of compulsory education – twelve in Northern Ireland – compares favourably with the length of school life found in most other countries. If the twin government drives to enrol still more four-, three- and two-year-olds in schools, and to make irrelevant the minimum leaving age of 16 continue and succeed, the UK may, in the foreseeable future, have the longest-educated young people in the world. Given the substantial degree of public investment supporting these policies, more scrutiny of the quality and results of pre- and post-compulsory education may be anticipated.

A third point is that although widening and extending educational participation principally benefited children from the British labouring classes during the twentieth century, Conservative, rather than Labour, politicians were most closely associated with the succession of measures described in this article. As Michael Sanderson observed in 1987, 'The successive raising of the school-leaving age throughout the century . . . owed much to the Conservatives – to 14 (1918), to 15 (1936 and 1944), to 16 by Margaret Thatcher in 1972' (Sanderson, 1987, p. 103).

Fourthly, justifications for compulsory education and its subsequent extension were often framed in terms of child protection and social control. Nineteenth-century enthusiasts saw the schoolroom as a haven for children from the dangerous streets and factories. Schooling continued to be presented as an insurance policy against crime well into the twentieth century. At the beginning of the Second World War, when thousands of children were evacuated from London and other major British cities to the countryside, there was a temporary suspension of the requirement for compulsory attendance at school. A 'moral panic' developed, with one magistrate complaining about 'a generation of Artful Dodgers' who were going to bed at midnight and rising at noon (*The Times*, 1 February 1940). Evidence continues to suggest that young people – teenage boys, especially - who fail to gain paper qualifications from their 11 years of compulsory schooling are most likely to fall prey to crime, drugs and homelessness.

A fifth point is that British industrialists' attitudes towards the introduction and extension of compulsory education progressively softened over time. In April 1929, an NUT executive officer commented that 'Every time the leaving age was raised short-sighted employers . . . predicted disaster to industry, and every time their dire forebodings had been falsified' (W. Merrick, quoted in *The Times*, 5 April 1929). By the middle of the twentieth century, the predominant business view was that the benefits of more literate and numerate 16-year-old workers outweighed the costs of having to pay them more. Today, meaningful employment opportunities for 16-year-olds are almost non-existent, providing a further disincentive for those contemplating leaving school at the earliest opportunity.

Finally, although cost-free state schooling has been offered throughout the UK for more than a century, neither in the past, nor now, has it been valued by everyone. A series of issues underpin this. A predictably wealthier strand of the population continues to prefer to pay for private schooling rather than entrusting its children to state schools. Truancy, by contrast, predominantly remains a working-class problem. Historically, non-attendance was most frequently associated with rural settings, with girls' absenteeism often exceeding that of boys. Today, truancy mainly involves boys in urban settings. The trend towards home schooling, meanwhile, has increased, admittedly from a small base, appealing to a broad cross-section of the British population. The presence of this sector is tellingly illustrative of the fact that, in the UK, compulsory education and compulsory schooling are not synonymous.

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RESEARCH NOTE

Exploring Student Evaluation of Teachers
An Area for Research

Sudeshna Lahiri*
Kamala Rai#

Abstract

To churn out quality output, Student Evaluation of Teachers (SET) is recommended as one of the effective measures for reforming educational practices. This leaves a question whether making policy is the only solution to the deteriorating standards of education? Therefore, the present article suggests a need for full-fledged research on SET. This research includes (i) significance and purpose; (ii) establishing objectives on the basis of purpose; (iii) developing an appropriate instrument; (iv) recognizing bias factors; and (v) implementing the process in a way that a positive attitude could be developed towards student evaluation of teachers. Hence, an attempt to draw an outline of research, which could communicate to policy makers what happens to be relevant to them and gap areas to be filled.

Introduction

For the last three decades, all the committees appointed to suggest reforms in higher education had recommended regular evaluation of teachers' performance and ensuring their accountability. The Rastogi Pay Committee instituted by the University Grants Commission (UGC) suggested the need for accountability in the teaching profession in terms of "self appraisal, assessment by students, periodic performance appraisal". The Committee stressed that student appraisal should be an integral part of the package of recommendation on pay scale and service conditions. The National Policy of Education, (NPE, 1986) observed a comprehensive open participatory database system of teacher evaluation. It includes self, peers, and heads of institutions/departments, students and others. Mehrotra committee (1987) too realized the need for compulsory annual submission of 'Performance Appraisal' and students should evaluate their performance.

* A-6/21, Gopal Kunj, Kulti-Storey Flats, Lanka-Maria Road, Naria, Varanasi-221005.
E-mail: sudeshna24@hotmail.com
Professor, Faculty of Education, Banares Hindu University, Varanasi

The National Assessment and Accreditation Council (NAAC) of India, established by the University Grants Commission in 1994, expects institutions to initiate quality management procedure. The organization made the institutions of higher education to introduce student evaluation of teachers as one of the criteria for assessing teaching quality. The guidelines given by NAAC for Internal Quality Assurance Cell (IQAC) consist of various questionnaires for collecting feedback from students in a structured way. Similarly, Technical Education Quality Improvement Programme (TEQIP) of Government of India, consequent to implementation of reforms derived from National Policy of Education (NPE-1986 as revised in 1992). The reforms to be carried out may, among others, include establishing the practices of student evaluation of teachers' performance and teaching counselling. The committees which also recommend the SET process as an integral part of appraisal system are Prof. Amrik Singh Committee, Ashok Mitra Education Commission during early 1990s and the recent 'Perspective Plan' by Higher Education Commission of West Bengal. In a recent decision, the Kendriya Vidyalaya Sangathan has decided to adopt a system of evaluation of teachers by the students. According to the new rule (i.e., 81-E), children from class V to XII would be given printed assessment forms in the month of October and they would have to put tick mark against the appropriate grading. In particular, this shows the attitude of the institutions towards the reliability of student feedback and competence of students to provide meaningful feedback.

Gradually, an evaluation system (i.e., Student Evaluation of Student or SET) is evolving in India, which would churn out quality. Since 1960s, student evaluation of teachers (SET) is used in US campuses for administrative decisions. However, it was first used in 1920s in the University of Washington for deciding tenure for teachers. The philosophy behind the practice is that students should not be the silent partners in reforming higher education. The process has gained its popularity in Australia, Canada, Europe and Great Britain. Tracing the history of SET, Bradbeer and Lo (2004) divide the modern era of student evaluation of teachers (SET) roughly into four periods: the thirty year period up to 1960, the 1960s, the 1970s, and the period from the 1980s to the present. Before 1960, most of the research on student evaluation was conducted at Purdue University. It was the students' protests of the 1960s for evaluating courses and their teachers as one way of making their voices heard. This resulted in Michigan State University developing one of the first commonly used and accepted evaluation forms, the Student Instructional Rating Report. During 1970s, most universities in N. America adopted some form of student evaluation of teacher for formative evaluation which further metamorphosed mainly for summative purposes that heads and deans could use for. It was found that use of student ratings as evaluation tools had increased by 57% between 1973 and 1993. The fourth period, from the 1980 until today, is characterized by more detailed use of newer and refined statistical techniques such as meta-analysis of the SET data. Recommendation for SET tops the list among the six suggestions for improvement of teaching made by the Carnegie Commission (1972). Thus, Student Evaluation of Teachers has been the frequently visited area for educational researchers in

Euro-American system. Although policy makers find SET as an effective measure for quality assurance, there is a scarcity of deep probe researches on this issue in India. The research available in Indian set-up is a doctoral dissertation published as a book by Balachandran (2000). However, the study alone does not give the sufficient and comprehensive information about suitability of SET in Indian educational set up. The focus areas of research are: (i) similar view among students and teachers regarding the criteria of effective teaching; (ii) student rating and self-rating are positively related; (iii) feedback from students is helpful in improving teaching effectiveness especially among female teachers; and (iv) favourable attitude among teachers in Madras university area towards SET. This leaves the question unanswered – should the SET process be implemented only on the basis of US/Canadian studies because of the dearth of researches? Regarding differences in socio-cultural background, it is essential to understand as to what is the need for SET process in India. Objectives of the process must be set in Indian context rather than borrowing them from western educational system. Most importantly, feasibility of the process has to be determined, thereafter, bias factors that could affect the process have to be recognized. Imbibing all these questions, it is necessary to conduct a systematic research in Indian set-up before making student evaluation of teachers as one of the essential criteria for deciding teacher effectiveness. Therefore, the present article attempts to investigate the unexplored area of Student Evaluation of Teachers where attention has to be given.

Significance of Student Evaluation of Teachers (SET)

Traditionally, Indian psyche is embedded in the philosophy that the student should repose unquestionable faith in the teacher. At the dawn of 21st century, the challenges raised by globalization of educational process would mean integration of new sources of information to the needs of the different socio-cultural group. It shows a shift from traditional learning atmosphere to a climate of values that encourage exploration. This specially draws one's attention to the moulder of today's generation, who should deliver with efficiency and accountability. Therefore, affirming the role and performance of teachers becomes significant in the pursuit of quality education. What, how and why use of performance appraisal has thus become debatable. A thorough research is required only on the question of student evaluation of teachers. Does this process suits to Indian value system? Reviewing the available literature, it is observed by researchers that use of student evaluation of teachers has been growing worldwide and going global (Leventhal et al., 1981; Stringer & Irwing, 1998; Wilson, 1998). Student evaluation is used to provide diagnostic feedback to faculty about effectiveness of their teaching used in personal decisions i.e. tenure/promotion and annual evaluation (Wilson, 1986; Harris & Ryan, 1995; Adams, 1997; Rossi & Tepper, 1998; Griffin, 1999, Sproule, 2000). Aleamoni (1981) observes that researcher opinion ran the gamut from valid, reliable and useful to invalid, unreliable and useless. Many researchers recommend using student ratings as one aspect for teacher evaluation. It could include self-evaluation, peer evaluation and administrative (Cashin, 1990; Dennis, 1990). Evans (2004) assertion the

stands to reason that seeking students' opinions is beneficial not only in so far as they can indicate to a teacher if they understand what is going in the class, but also as it gives the students a voice in their own education. Dennis (1990) discussed the pros and cons of using student evaluation to determine faculty promotions. Feldman (1997) reveals that many faculty members are resistant to use of student ratings for tenure, promotion and merit decision. Lots of hues and cries have been made on the implementation of the process in India. Chadha (2003) argues in his article in a national daily that the blind adoption of the Western model of performance appraisal of teachers by students will be simply misfit in our university environment because of the entirely different set of personality traits of our students. However, this reveals a viewpoint rather than a deduction based on a line of researches. It again raises the point – Are students competent of evaluating their teachers? What is the validity, reliability and objectivity of the raw scores so that the process could be made as an effective measure for assessment of a teacher. Western researchers have given conflicting results. Serivan (1995) said that students have front row seat to observe teacher behaviours and classroom processes, and are the best judge of what they have learned. Harrison, Ryan and Moore (1996) argue that students seemed to possess implicit theories associated with the occurrence or non-occurrence of specific behaviours of instructors, students also possessed self-insight into how they make overall evaluation while incorporating those implicit theories. However, Haskell (1997) pointed out the statement by faculty in research literature that SET (1) is prima facie evidence of administrative intrusion into the classroom; (2) are often used as an instrument of intimidation forcing conformity to politically correct standards (Young, 1993); (3) create pressure for a self-policed lowered teaching standards (Bonnetti, 1994); (4) are responsible for a considerable amount of grade inflation (Greenwald, 1996; Greenwald & Gillmore, 1966); (5) function as prescriptions for classroom demeanor (Damron, 1996); (6) when used for promotions, salary raises or continued employment, SET becomes potent means of manipulating the behaviour of faculty (Stone, 1995); (7) when salary and promotions are possible consequences of SET, there is presence for faculty to teach in manner that results in higher student evaluation (Damron, 1996); (8) contrary to their original intent of improving instruction, do not eliminate poor or below-average teachers but increase poor teaching practices (Carry, 1993), (9) illustrate a mercantile philosophy of "consumerism" (Bensen & Lewis , 1994), which erodes academic (Goldman, 1993; Renner, 1981); (10) have their lowered quality of US education (Carey, 1993; Crumbly & Fliender, 1995; Young , 1993); (11) lead to the inappropriate dismissal of faculty (Parini, 1995); and (12) constitute a threat to academic freedom (Dershowitz, 1994; Stone, 1995). These findings complicate the concept of student evaluation of teachers. Adding to this, Aleamoni (1987) reports that most research and use of the student rating forms occurred at the college and university level, and it is possible, therefore, that the needs of students at high school level are different, as the needs and expectations of students will change as they mature. This again leaves the question – does this process encourage the sense of "consumerism" among students and parents? With the varied needs of students at schools and university levels, does the

significance of the SET change? Thus, dilemma of implementing SET for deciding teacher effectiveness has to be translated in the form of research.

Purpose of SET

For the implementation of SET, objectives of the process have to be framed. These objectives definitely depend upon the purpose of SET in the light of contemporary socio-cultural context. A full-blown research is required to identify the purpose of student evaluation of teachers. On the basis of previous researches and available literature, the purpose of SET is variously to: (1) improve the quality of teaching and services to the students (Kremer, 1988); (2) enable the teacher to recognize his/her role in the total school program (Rebore, 1991); (3) assist the teacher in achieving the established goals of the curriculum; (4) help the teacher identify his/her strengths and weaknesses as a personal guide for his/her improvement (Harrison & Ryan, 1995); (5) provide assistance to the teacher to help correct weakness (Marsh & Roche, 1997); (6) recognize the teacher's special talents to encourage and facilitate their utilization (Rossi & Tepper, 1998); (7) serve as guide for renewed employment, termination, promotion, assignment and unrequested leave for tenured teachers (Harrison& Ryan, 1995); (8) protect the teacher from dismissal without just cause; (9) protect teaching from unethical and incompetent persons (Erwin, 1994). As suggested by Balachandran (2000), the purpose of evaluation of teachers is to: (1) reward good teaching; (2) find the quality of teaching for tenure; (3) give feedback to teachers for improving teaching; and (4) undertake researches. Researchers broadly categorize the above purposes into two groups of evaluation: Formative and Summative. Summative evaluation is a tool used to make personal decisions. In this evaluation, raw data is to provide student input deciding on the reappointment, pay, merit pay, tenure and promotion of an individual teacher. Many view it as controversial as it quite often induces negative attitude among teachers for the student evaluation. Formative evaluation is aimed at personal teaching improvement. It is designed to provide information to the teacher, which he/she can use in current and future classes. It initiates the improvement of weak areas and used to make personal decisions providing student feedback to teachers on its effectiveness. It is non-controversial as it gives scope for self-improvement. Most of these researches have been carried out in Euro-American system. A set of clear cut objectives has to be formed by recognizing the purpose that could be served in our system. Thus, it is necessary to address – for what purpose SET is needed in Indian context?

Instrument for SET

After framing the objectives for SET on the basis of identified purposes, it is required to develop sensitive instrument, which could provide an empirical evidence of teacher effectiveness. The selection/development of instrument depends most prominently upon various considerations such as objective, amount of time at the disposal, suitability of test, personal competence of administrator, scope and analyses of the test results and the like. For data to have any interpretability, the instrument should possess into a satisfying

mark the characteristics of reliability, validity, sensitivity, appropriateness, objectivity, feasibility and ethical standards (Fox, 1969).

Before developing/selecting the appropriate instrument, a review of teacher evaluation instrument should be made. After reviewing the related instruments, it is necessary to conduct a content analysis of the instruments in order to identify the factors. The developmental problems of teacher evaluation programs begin with the fundamental consideration: if student evaluation of teachers is a questionable measure of teacher effectiveness, then what do they measure? Researchers suggest that if a survey contains separate groups of related items, and empirical procedures demonstrate that these items do measure the same underlying trait, then it is easier to interpret what is being measured. The student-rating literature does contain several examples of instrument that have a well-defined factor structure and provide measures of distinct areas of teacher effectiveness (e.g., Frey et al., 1975; Marsh, 1982a, 1982b; Hildebrand et al., 1971). According to Marsh (1984, 1993), there are several reasons why evaluation of teaching should be considered as multi-faceted (e.g. Crunkshank, 1985; Gage & Becliner, 1992; Huilt, 1995), and then instruments for student evaluation should reflect this multi-dimensionality. Secondly, there is no single criterion of effective teacher (e.g., McKeachie, 1990). Different factors of student evaluation will correlate more highly with different indicators of effective teacher (e.g., McKeachie, 1973). Thus, western researchers advocated for multi-dimensionality of the instruments. In this regard, Indian researchers should develop their instrument for evaluation identifying factors in Indian context, thereby, giving their idea for multi-dimensionality. Balachandran constructed an instrument, Rating Scale for Student Evaluation of Teaching Effectiveness (RASSETE), in Indian set-up at 1981 for her doctoral thesis. For the development of instrument, Cashin (1990) makes suggestion for short and long (diagnostic) rating forms that include open-ended comments. Cashin & Downey (1992) suggest that because global items accounted for a substantial amount of the variance, a short and economical form could capture much of information needed for summative evaluation and longer diagnostic forms could be reserved for teaching improvement. Marsh & Roche (1997) concluded that the validity and usefulness of student evaluations of teaching information depends on the content and the coverage of the items. Poorly worded or inappropriate items will not provide useful information, whereas, scores averaged across an ill-defined assortment of items after no basis for knowing what is being measured. Eley & Stecher (1997) compare the common Likert agree/disagree question form to behavioural observation form for faculty evaluation. The Likert - type format prompted more objective responses. Results suggest use of behavioural observation rather than agree/disagree questions can yield measurably greater inter-rater reliability and capability to distinguish among levels of teaching quality. Thus, developing the tool for student evaluation of teachers include pool/select items on the basis of set objectives where items should be clear, unambiguous and representative of construct "teacher effectiveness". For the multi-dimensionality of the tool, factors should be identified with respect to existing socio-cultural context. Moreover, factors should be culturally *free* and *fair* for diversified culture in India.

Bias Factors in SET

Review of literature suggests that there are potential biases in students' ratings (Marsh, 1980; Papalewis, 1990; Ronco, 1990; Wollart & West, 2000). The common context variables that are seen as affecting student evaluation of instruction explored by Papalewis (1990) are: (1) Course variables, such as required/elective, day or evening, course level, lecture versus discussion, and others; (2) Teacher variables, such as rank, gender, full-time versus part-time, years of teaching, individual rapport, and personality characteristic; (3) Student variables, such as academic major versus minor, full-time versus part-time, gender, personality characteristics, and others; (4) Administration variables, such as student anonymity, direction giving, timing of semester evaluations, etc.; and (4) Instrument variables, such as placement of items, number of response alternatives, negative wording of items, and the labeling of all scale points versus labeling and points. The paper examines teaching effectiveness through communication style used by the teacher, as well as the biased expectations that can be held by instructors of their students' intellectual performance. Conversely, student bias towards teachers is discussed within the contexts of gender and socio-cultural stereotyping.

A summary of bias-factors affecting students' ratings of teachers is given in Table 1 which is a vast area of research.

TABLE 1

Overview of Relationships Found Between Student Ratings and Factors Affecting

Factors	*Summary of the findings*
Prior subject interest	Classes with higher interest, rate classes more favorably, though it is not always clear if interest existed before start of course or was generated by course/teacher.
Expected grade/actual grade	Classes expecting (or receiving) higher grades give somewhat higher ratings, though the interpretation depends on whether higher grades represent grading leniency or superior learning.
Reason for taking a course	Elective courses and those with higher percentage taking course for general interest tend to be rated higher.
Workload/course difficulty	Harder, more difficult courses requiring more effort and time are rated somewhat more favourably.
Class size	Mixed findings but most studies show smaller classes rated somewhat more favourably, though some find curvilinear relationships where large classes are also rated favorably.
Level of course/year	Graduate level courses rated somewhat more favourably; weak, inconsistent findings suggesting upper division courses rated higher than lower division courses.
Teacher rank	Mixed findings, but little or no effect.

Tenured and non-tenured teachers	Tenured teachers receive higher ratings than non-tenured teachers.
Sex of teacher and / or student	Mixed findings, but little or no effect whereas gender interaction shows rating given by male students suffered from same-sex bias.
Sex role	Sex-typed personality characteristics may matter even more than teacher or student sex-stereotyped in terms of affecting students' ratings of teachers.
Age of teacher	A negative effect for age of teacher.
Teachers' dress	Formal dress was associated with increased ratings than teachers found in casual conditions.
Academic discipline	Weak tendency for higher ratings in humanities and lower ratings in sciences, but too few studies to be clear.
Purpose of ratings	Somewhat higher ratings if known to be used for tenure/promotion decisions.
Administrative conditions	Somewhat higher if ratings not anonymous and teacher present when being completed.
Students personality	Mixed findings, but apparently little effect, particularly since different "personality types" may appear in somewhat similar numbers in different classes.

All these studies have been conducted in western countries. However, bias factors in India may not be limited to these factors only; many other sociological variables may have effect on student evaluation of teachers. Among these variables, effect of caste, religion and province of students and/or teachers may keep an importance in investigation of students' ratings.

Lastly, improvement of student evaluation of teachers is another important area of research. It is not only essential to recognize shortcomings of the process, but it is also necessary to find out how the errors could be minimized, if not eliminated completely. Regarding this, Davis (1995) directed faculty members to explain the importance of the evaluation process to students in an effort to elicit a fair and thoughtful response by students. Cook (1989) advocated training student-raters is an effort to reduce the halo effect on Likert Scale evaluation instrument and to help produce quality ratings. According to Cook, students trained on the importance of ratings and given information and opportunity to provide quality ratings, do so with regularity. In sum, the trend 'Student Evaluation of Teachers' is new to Indian academe and scarcity of conducted studies is there. Therefore, a deep probe research may help to bridge the gap between confused administrators and threatened teachers. Once an in-depth research is conducted, the process could be implemented in Indian setup, confidently.

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BOOK REVIEWS

Surendra K GUPTA (2004) ***Emerging Social Science Concerns Festschrift in Honour of Professor Yogesh Atal,*** New Delhi, Concept Publishing Company, ISBN:81-8069-098-9 (Hard Cover) pp.440+xvi, Rs.850

Social sciences have created a niche for themselves in the academic world. In India, they have made rapid strides since independence initially filling in the needs of planning and policy. But gradually they widened their concerns debating issues of societal goals and social processes. In this engagement social sciences became concerned with not only with empirical questions but also with those of philosophy and methodology. In this all encompassing perspective, no single book can do justice to all the dimensions of social sciences. The book under review begins ambitiously but confines itself to the broad interests of the person in whose honour the papers have been brought together.

Professor Yogesh Atal is a distinguished social scientist of the country. After beginning his career in India as an academic and research administrator, he spent 23 years with the UNESCO. Many of these years were spent heading the Regional Social Science Office for Asia and the Pacific first in Jakarta and then in Bangkok. He continued his interest in the problems of India while gaining considerable insight into the scope and challenges of social science research in the broad region of Asia. This is reflected in his innumerable writings and publications. A large number of his students and colleagues who have interacted with him in course of his national and international professional career have responded to the invitation of the editor to prepare this volume. It was difficult to put the papers in a single theme, for the editor himself says that he had given the contributors ample freedom to choose a subject of one's own choice. Consequently, the collection of papers in the volume represents a variety of orientations and varying standards; but as the editor says, they demonstrate a high esteem for Professor Atal. Indeed, the task of introducing such a volume to the readers is further complicated by the fact that all the essays have not been necessarily written for this volume. Some have been published previously and elsewhere. However, the volume is a product of the high regard that Prof. Atal has held in the academic community.

The volume is divided into three parts. The first part consists of 8 contributions grouped under the heading of personal experiences. Part two has 10 essays generally included within the rubric of Emerging Social Concerns in the Global Context and the final section of 13 contributions is grouped under the title of Exploring India. A number of these papers reflect the concerns expressed in the writings of Prof. Atal. The issues regarding the Indian Diaspora, for example, are taken up by Sanket Atal as his personal reminisces of growing up with his father in an international setting, by Ruchir Mishra nee Atal of Indians in Thailand, by Surendra Gupta of Punjabis and Gorakhpuris in Thailand, N Jayaram contributing on the case of language in Trinidad as an exploration of Atal's

concept of 'sandwich culture'. Similar reflection of Prof. Atal's interests is expressed in the paper by Dasgupta on the work of IASSI. There are several papers examining problems of poverty and women's empowerment. An interesting paper included in the volume is by Partha Mukherjee who recollects some of his personal memories of working with Jai Prakash Narain and dwells on his dedication and commitment to the cause and also his large-heartedness in dealing with his foes.

The volume is diverse and rich in the issues undertaken and it is difficult to put it into a specific rubric.

B-083 Belvedere Park, DLF City III
Gurgaon-122002

Kuldeep Mathur
E-mail:kuldeepmathur@touchtelindia.net

Behar, SHARAD CHANDRA, (March 2005): ***Globalizing Education – Perceptions and Processes***, Pune, Indian Institute of Education, (Hard Cover), pp. 382 Price Rs. 600/- $60

'Globalization', both as a concept and practice, keeps yielding a variety of meanings depending upon the context and the background of the user. For instance, globalization for an economist raises problems and issues linked with the gains and losses of trade among disparately developed nations; for a weatherman it is contextualized in terms of the impact of natural disasters and possible solutions in close collaboration with other nations; and for a philosopher it suggests myriad hues of the nature of Truth each being valid in a given context; and for an educationist it results in thinking of curricular changes to remain nationally competitive, if not ahead of others; etc. This is one single reason why it is so unsettling to tackle the subject and try to assess its relationship with education.

For an educationist, globalization has resulted in the mobility of institutions, technological changes in the methods of teaching, standardization in higher education leading to institutional ranking, differentiation between knowledge and information, the sad demise of dialects and smaller languages, curricular overhauls, and, viewing education itself as an instrument of keeping nations competitive. And all this has happened not because of the teachers but because of the natural desire in some to dominate the others who are less fortunate either in physical prowess, material prosperity or cunning.

Both peaceful and non-peaceful movement of people from one region to another, intercontinental trade like the one carried on once upon a time via silk-route, voluntary efforts of scholars to learn in other countries and even impacting other cultures through love and understanding, spreading religious messages across continents etc have all been known down the centuries. But the 'west-driven forced movement of people with hostile intentions' is a new experience for the world. In fact, it is this that is being termed as 'globalization' these days with developed nations forcing down the throats of the less

developed their culture, technology, instruments of warfare, languages and trade and creating rules for this kind of governance through written treaties and laying down conditions through organizations like WTO, GATS / GATT etc and trying to protect themselves through IPRs etc. In brief, the undeveloped or the developing countries are at the receiving end and no matter how much they cry they are forced to adjust themselves to a new world order. In that sense whether one liked or not one has to understand the nature of the current rage. Without doubt the present effort of the IIE, Pune will go a long way in making at least a section of India's teaching community prepare itself for the coming challenges. The fact that this book, while felicitating Dr.Chitra Naik, (former Educational Advisor to the Planning Commission, and the wife of (late) Padmashri J.P. Naik) on her 85th birthday, also pays respect to her life and work. I also recall a small but significant trait in her character. Long back in one of my books on Non-Formal Education, I wrote something about the Institute. Dr. Naik wrote me a long note running into 3 pages correcting my information. This aside only goes to show how careful and prompt she is about educational matters and the institution she has so carefully raised to the present status. From my side too the present write-up may be accepted as a tribute to her life and work. About the editor too I have very fond memories. Let this review be accepted by him as token of my respect.

We live in an unjust world. The strong are unwilling to give the weak and the poor level-playing field. Therefore, it is all the more necessary the weak and the impoverished are made aware of what they are getting deprived of and why.

Under the circumstances, education has come to occupy the pride of place and hence the quest for knowing more and more about the ways of keeping oneself a step ahead of others. Thanks to individual grit and imagination of a vast minority of India's middle class. We find ourselves placed in a slightly better category than most poor and undeveloped nations. India can accept the challenge and may be some day she overcomes her current handicaps.

Now let me come to the review proper.

The present publication should be seen against the backdrop already explained above because here we find that an attempt has been made to assess how this concept has impacted us in India educationally; and, what measures, if any, have been taken to combat the same. So much has been the anxiety of the editor to update his readers' current information that he had to add perhaps during the publication process itself the following:

> "As the book was under print, I have come to know that recent developments have led to a situation in which now option 1 is closed to India implying that it will be presumed by the WTO that India has consented to globalize education under its regime." Though the Editor does not agree with this assertion, the fact is that India has agreed to modify its own rules. But to that I shall come later. .

Presented in 24 chapters including a 45 page introduction by the Editor, the present book attempts to cover almost all aspects linked to globalization both as a concept and practice. The list of contributors reads much like *Who's Who* in the field of Education.

The list comprises members of Planning Commission, senior officials of the NIEPA, vice-chancellors of universities – including IGNOU, professors of JNU etc. and a clutch of senior bureaucrats of the Government of India. To put it simply, if they do not know about globalization of education and its impact, then who else would?

In the language of the Editor, "the book was planned in a very open-ended manner. There was a broad understanding that it is about the most critical challenge facing the world today, namely, globalization." Papers were invited without giving the invitees any framework. The received papers have however been presented with a definite rationale. While a number of authors have not tried to keep the formalized arrangement of WTO or GATS in their paper but somewhere in their consciousness, they have not overlooked the reality. For instance, the hallmarks of globalization like liberalization, privatization, etc. are unacceptable to a contributor.

On the issue of privatization of education the editor has cited the 1882 Indian Education Commission report and also reinforced one of its recommendations by citing Naik and Nurrullah. Unfortunately, Mr. Behar has seemingly overlooked the logic behind this recommendation. Although this is not the proper occasion to pick a bone with him on this topic, he is briefly reminded that no foreign government has ever agreed to financially support its colony's system of education. If the British did support a few schools the reason was that they could not import the entire lower level staffs from back home. The colonial masters, therefore, almost universally let the educational systems alone, because other than those that are committed, no one else comes forward to get involved in a task of an un-ending benevolence. The cited book is full of unsustainable assumptions. The governments of free countries spend money to make its people strong, forward-looking and competitive but the same cannot be said for the colonial governments, because they simply do not wish to strengthen the hands of unwilling slaves of a colony that are bound to overthrow them, should they ever become knowledgeable. But the issue of privatization of India today is contextually different. Currently, private money is ready for investment in education. Education has become big business. It is profit-making. This was never so during any Raj. So, why compare the incomparable.

One can object to the private money being invested into education but it is doubtful if they are likely to succeed. The times have changed. The three papers namely of Tilak, Govinda and Mina have to be read together because they offer a broad spectrum of arguments for a relevant and heated discussion. The basic question is: in a knowledge society which stage of education is relatively more important and why? The next poser is: who should finance it? In the days of market economy, it is a moot point whether government alone is responsible for all stages of education. There are a wide variety of goals in education but who will determine their rank order? If the government does it, we might be facing the same dilemma as we are doing now. The goals of education are politically and socially determined. Education, we are told, can be deep red or royal orange. Unfortunately, the choice is with the government and not with the people –

although they elect it. The pitch is already queered and the scholars do not count. They are, however, free to argue and this they always do.

Mina speaks and writes like a passionate activist for her cause because she is a dedicated soul. She proves beyond any reasonable doubt that early childhood education is utterly neglected and there is gender blindness. If roadblocks to this level of education are removed then alone women empowerment will become possible.

Opinions differ about globalization being treated either as a process or a product or both. The fact, however, remains as Shaeffers holds that it has a tremendous impact. One can see lots of global movement both of people, technology and goods and services. Knowledge is increasingly being treated as a protected territory because poaching is currently a lucrative business. There is nothing like stealing a blueprint of a nuclear reactor or a bomb. Not only the traditional knowledge areas are getting subjected to the rules of market economy, nations are getting involved in selling and buying knowledge products. Education, therefore, is a commodity. The patenting of each innovation and its protection is getting regulated. The frightened nations desire their innovations covered by internationally accepted norms called IPR. But the biggest problem is 'standardization and homogenization' of cultures. McDonaldization of the world is submerging local and indigenous cultures. Howsoever we might object, it is a reality and we cannot escape it. What seems to be possible is to humanize a bit this globalization. And there is a paper on this theme by Gandhe, which, I believe, deserves some sympathetic reading. He objects to globalization being a 'faceless economic mechanism' intended for making profits 'regardless of ethical and moral considerations'. My sympathies! Mr. Gandhe.

The two papers one by Venkatsubramanian and the other by Pramod Kale may be read together. The former wishes India to become knowledge superpower via technology and the latter discusses the crucial role of computers and the Internet in the coming years while emphasizing at the social implications of the convergence technologies. Takwale explores the potential of ICT and talks of the possibilities of the emergence of new models of education. One should continue to read in this context papers by Bushan Patwardhan and Ashok Kolaskar & Rajyalakshmi Kolaskar who lay stress on India taking advantage of the globalization process in the field of higher education. For Bhushan 'Trade in higher education is a billion dollar industry.' This recognition of the reality has certainly to be acknowledged. This is one reason why our universities too are opening new campuses abroad like the others who find lucrative trade in this country.

One tends to agree with L.C.Jain when he says, "We must design our own perception of a global community, which enjoys freedom and equality for all in all sectors of life including emphasis on the economic sector because low income means low education means low incomes..."

I wish specially to draw the attention of the reader to a write-up by Tapas Majumdar on the state of primary education in West Bengal. It should suffice to note that a State government that has globalized philosophy for guidance and has an uninterrupted rule of more than two decades and a half to its credit finds itself only slightly better than a sovereign anarchical state of Bihar in terms of literacy and has to take recourse to

providing primary education to all through a highly questionable scheme called SSK. I would be interested to read the answer to the query Tapas raises toward the end of his discourse: "Does this promise go far enough to satisfy the Constitutional requirement of maintaining the fundamental right to free and compulsory education? Will it pass the test of 'progress in the eight areas of energisation' as agreed to by the States before the highest judiciary of the land?" It calls for a comparative study between WB and Kerala in this regard.

Whether globalization is a 'construct' as the editor says it is, or something endemic as Mr.Naik holds out citing the Rgveda, it merely symbolizes a stage in human development. Let us not get dazzled by the sudden rise of a concept or a process and get swept off our basic Indian roots. We are fighters and know how to take on a challenge and, I am sure, we certainly will, this one too.

An excellent book for all to read and especially for those who are still not aware what is happening around us and how we are preparing ourselves to meet this bugbear halfway.

Pocket A-4/206, Kalkaji Extension
New Delhi-110019

R.P. Singh
E-mail: rpsingh2@vsnl.net

Ghose, A.M. (2003). ***Essays on Higher Education***, Calcutta, Writers Workshop, pp. 172, ISBN-81-8157-127-4, Price Rs. 250.00 (Hardback).

The book under notice is a collection of 21 essays on different aspects of higher education by late Prof. A. M. Ghose (1927-1992), published in newspapers and academic journals during nineteen-sixties and seventies. Prof. Ghosh retired from Department of Philosophy, University of Rajasthan in 1987, and had a stint with University Grants Commission during 1978-79 as consultant. Ghosh was interested in the problems of education, especially higher education in post-colonial India. These essays no doubt are of historical value but may be relevant and worthy of consideration by the academic community even in the present times.

In the opening piece, Ghosh opines that the goal of development is that the villagers must learn that they will have to organize themselves and manage their affairs. A plan for integral rural development presupposes a change in the realm of mind, in the pattern of rural behaviour which calls for sustained efforts at controlling and minimizing human needs. In this task teachers and students of higher education can be associated to bring about change in the life of the villagers. There is also a need to produce low priced popular books dealing with various aspects of rural development. Next, the author writes that war against illiteracy is important next only to the war against poverty. The rise of literacy in the urban areas has not shown an appreciable improvement in the quality of material, the neo-literates read. Adult education programmes must be seen

as part of a much larger movement – that of lowering the barriers raised by some to satisfy their pride and greed. The solution is that political parties in the interest of the gigantic task of taking the country above the "illiteracy line" must sink their ideological differences. It is a major challenge facing the nation.

There is a suggestion that moral education should be used in a broader sense so that it is too extensive with values other than strictly ethical. Nationalism is one of the major values which needs to be inculcated in our youth. Besides, other values are secularism, egalitarianism and non-violence. The goal of moral education is to send out decent citizens alive to rights as well as obligations, helpful and tolerant attitudes, straight forward and courageous, prudent and diligent. Men should look at themselves as seekers after truth, as controllers of physical environment as creative artists, as interpreters of past and as travellers in search of a better life.

The three widely acknowledged function of a university are teaching, research and extension (service to the community). However, there is a good deal of controversy with regard to their relative importance. Research has acquired greater prestige and teachers find it more rewarding. Some consider that teaching requires less skill, intelligence and energy than research. Research and publications bring recognition, prestige and mobility within the profession as well as outside it. The service to the community has yet to gain sufficient recognition in the academic circles. The teachers' role as an agent of social change, can scarcely be over emphasized. The average undergraduate wants that teacher should devote more time to teaching, lectures, tutorials, seminars, hold test periodically and evaluate impartially. The average citizen is neither aware of, nor interested in the problems of higher education. Further, most of the legislators have no distinct notion about the goals and purpose of higher education. There is a wide gap between legislator and academician, but they need to come closer. There is a suggestion that higher education should remain the privilege of a few meritorious students. Restrictions on admissions, non-proliferation of colleges and universities and more scholarships to deserving students would go a long way in regaining health. In another essay, Ghosh writes that our academic aspirations are shaped by scholars and scientists engaged in research in great seats of learning abroad. It is they who have raised questions and it is they who found out answers. We have engaged ourselves in simply repeating what they say and think. We have not made any substantial contribution to the stock of human knowledge; because we have never raised these questions, which when answered will extend the frontiers of knowledge. Ghosh points out that education in our country has not articulated the aspirations, needs, requirement of our society, of which universities are a part and its future.

A teacher has four major loyalties to his students, to his discipline, to his community and to himself. A teacher has to be a learner. He continues to learn from diverse sources – students, peers, thinkers and scholars – past and present. The demands of a developing society struggling to modernize itself enlarge the teachers' field of activity. The society beyond the campus needs the teachers and he too needs the society. Teachers should be individuals with sympathy, vision and wisdom, products of

sustained reflection and erudition. They have to develop a catholic outlook in students and college education should produce certain changes in their attitude. In another essay, Ghosh points out that, teachers in our universities consciously or unconsciously tend to escape from interactive situation between the teachers and the student. Some teachers do not find time to meet their students because they are constantly attending seminars, summer schools, and workshops at one place or another. Some remain engaged in research for their personal advantage. But, there are others, whose investigations are academically worthwhile to the needs and aspirations of the university and the community. It is time that serious efforts should be made to shorten the session of the administrative conferences and meetings. Perhaps, one reason for escapism is that teacher finds no real satisfaction in his job, may be inadequate incentives, unresponsive students and long teaching hours, poor communication or dialogue.

Education reconstruction should assume that education is an instrument to bring about certain changes in society at large with the help of a small minority who go to school and college. Our planning for change must be guided by how they want to shape future society. It requires that not only the consents but also the methods of teaching will have to be radically different. A new relationship will have to be developed between the explorer, the discoverer, the inventor and the teacher. One major task is to relate education as intimately as possible to our way of life. The author has stressed the utilitarian aspect of knowledge and awareness about the regional problems. It is noted that our education policies were until recently unrealistic and indifferent to the requirements of life; these were either based on a romantic concept of man influenced by Platonism, Christianity and British Legalism or they were dictated by extremely narrow and utilitarian motives. Reconstruction is neither possible nor desirable unless there is a closer cooperation between school, college, universities and research institutes.

An integrated education would mean a tilt towards the villages mainly because India is a land of villages and agriculture is their mainstay. We need a total reconstruction of our curricular and extension programmes. Keeping in view the ideals of national unity, education should deepen national consciousness, strengthen the learner's appreciation of the country's rich cultural heritage and reinforce his faith in the great future which we have to forge for the coming generations. The author suggests the need for inter-disciplinary courses and inter-disciplinary research. Work experience should be made an important part of educational programme. The author pleads in making education at all levels relevant to the needs of the country and its culture. It is emphasized that if we are interested in arresting 'brain drain' then efforts should be made to encourage fresh experiments in curricula almost at all levels. Greater autonomy particularly at higher levels alone, will bestow the responsibility a teacher needs to be really useful.

The best method to make our students see and handle problems is to acquaint them with those issues that bristle in their own life, in the life of the community and in the neighbourhood. For example, in the University of Rajasthan, there have not been any

serious efforts to study the History of Rajasthan. There is a need of advanced research as well as critical investigations in various disciplines, especially in Humanities and Social Sciences to discover their ancient traditions and, if possible, to make these traditions relevant to the contemporary milieu These findings will have to be conveyed to the lower level where they from a part of curricula. There is ample scope for research in regional history, geography, languages, literature, art, painting, music, even legal and philosophical traditions. Our universities, besides being centres of transmission of knowledge, should be active seats of learning and research. Ghosh asserts that our universities will have fulfilled a genuine purpose when they are able to produce men and women who push beyond the existing frontiers of knowledge (p-107).

In student unrest, it is pointed out that since the last week of September 1967. headlines like 'Delhi students go stoning', Hyderabad students tear gassed, students clash with students and Hyderabad students stone trains' have appeared almost daily in our newspapers. That a large number of our students mostly studying in colleges and universities are not behaving in the manner they should. The erring students have never been taken into confidence. These students have seldom been told what exactly is expected of them. Only a handful of them plan and direct the agitation, while the rest take at best a passive part and some do not join the agitation at all. The major causes of student unrest are economic, social, political, legal and educational. A good deal of unrest among college students can be found due to the selfishness of teachers who neglect teaching. There is a need to understand the situation in all its perspectives, the necessity of a dialogue, and to offer alternative solutions.

The failure of our universities stems from scholars' failure to discharge their responsibilities. Few scholars in our universities take the historical dimension of the disciplines in which they specialize seriously into account. Ghosh emphasizes that the historical dimension needs to be taken into account primarily because there is such a dimension and a profound awareness of it is not only valuable in itself but also helpful in meeting the contemporary challenges. Further, contemporary problems and issues as they have emerged in the sub-continent have not drawn the attention they deserve. Freedom of inquiry and teaching is yet to become an integral part of our academic traditions. Our universities have seldom thought that they are in an important sense concerned not with the past but with the future, we want education that meets the requirements of the country in the time to come.

In education expansion: 'Pros and Cons' the author points out that taking into account the size and population of the country, the expansion in the in the sphere of education is not at all impressive. During 15 years, our progress in the field of humanities has been rapid, but it has also been responsible for the deterioration of standards. Our departments and faculties have not always been staffed with the right type of persons. It is emphasized that we want scholar, erudite as well as imaginative, aware of the needs of the country. Some people subscribe to the view that we should slow down our pace of expansion because our resources are limited; we should on the contrary concentrate on consolidating whatever little we have achieved rather than investing our resources on

expansion that are superficially impressive. There are instances where educational institutions have been set up not because of the needs and requirements of the people in the locality, but because of trivial political, communal, religious and other considerations. But, there is still enough room for expansion.

Progress in trade and commerce, and the opportunities for employment offered by public and private sector will goad us to expand in the sphere of education as well. Some students, who otherwise deserve, do not receive higher education due to financial constraints. The solution lies in awarding more scholarships on the basis of merit. It is time, we seriously think of evolving a true national education. It is emphasized that planning in education must take into account the views of statesmen, economists, sociologists and policy makers of all sorts to evolve goals and targets. Ghosh laments that educations and policy makers have thought precious little on how educational expansion should be correlated to social and economic needs and aspirations.

In sum, it is hoped that these essays will provide food for thought to academicians, administrators, planners and general reader interested in the cause of higher education.

B-58, Inderpuri
New Delhi

P.C. Bansal

K.S. CHALAM (ed.) (2002): ***Studies in Higher Education – Indian Psychology and Consciousness***. Institute for Yoga and Consciousness, Andhra University, Vishakhapatnam, pp. 256. (Paperback)

The volume is dedicated in honour of Prof. K. Ramakrishna Rao who is one of distinguished educationists from Andhra University majoring in Philosophy and Psychology. K. Ramakrishna Rao served in various capacities as an academician and educational administrator – Vice Chancellor, Andhra Pradesh University, Chairman of the Commissionerate of Higher Education, Advisor on Higher Education to Government of Andhra Pradesh and as Chairman of the School Reforms Committee of Andhra Pradesh.

The volume is divided into two parts – the first part contains nine papers drawn from different fields in higher education. The second part also contains five chapters related to selected writings and speeches of K.R. Rao.

Gowri Rammohan describes the contributions of Ramakrishna Rao and influences of J.B. Rhine in turning Dr. Rao's theoretical interests into empirical investigations. His readings of published research in para-psychology, especially the laboratory investigations of extrasensory perceptions (ESP) convinced Rao of the existence of some extraordinary phenomenon to which yoga treatises refer. His Presidential addresses to the para-psychological association reflect his deep understanding of the *Advaita Vedanta*

views of Brahman and pure consciousness with the holographic theories of David Bohm (1973), citing the case of his illustrations in book Consciousness Studies: Cross-Cultural Perspectives', Rao reviews the deeply different perspectives of Eastern and Western traditions in studying consciousness. Drawing heavily from *Samkhya-yoga*, *Advaita Vedanta* and Buddhist systems, Rao developed a model for studying consciousness. Dr. Rao passionately pleads for a national system of education along the lines sketched by the 'Father of the Nation' – Mahatma Gandhi. Dr. Rao's ideas take a concrete shape in the projected activities of the Institute for Human Science and Service which is his brain child. The Institute is designed to bring about realization of knowledge by combining classroom learning with community service to respond with relevance of education to sub-serve community ethos.

M. Ananda Krishnan in his paper 'Higher Education in India: Some Strategic Viewpoints' focuses on restructuring higher education in India. He concludes that the partnership approach between the institution, Government and the society in the growth of higher education would be necessary by raising resources through various traditional and non-traditional means. He suggests that the share of higher education in the State Budget (Plan and Non-Plan) should be 20 per cent. Presently, it is 13-9 per cent of the total education in Tamil Nadu.

G.D. Sharma analyses trade in education service under WTO regime in Indian context. The General Agreement on Tariffs and Trade (GATT) in 1994 gave rise to multilateral agreement on trade under World Trade Organization (WTO). The WTO has identified (as of now) four main modes of trade in education that receive legal protection through GATTs:

- Cross-Boarder Supply of a service includes any type of course that is provided through distance education or the internet, any type of testing service, and educational materials which can cross national boundaries.
- Consumption abroad mainly involves the education of foreign students and is the most common form of trade in educational services.
- Commercial presence refers to the actual presence of foreign investors in a host country. This would include foreign universities setting up courses or entire institutions in another country.
- Presence of natural persons refers to the ability of people to move between countries to provide educational services.

Analyzing the data in Indian context, it is observed that current status of India as International Service Provider of Higher Education needs serious attempt. The available data indicated that 'over a period of time (1994-95, 1995-96 and 1996-97), the number of foreign students enrolled in India have declined'.

Open Distance Learning system in India is gradually placed on an enduring pedestal. Dr. B.R. Ambedkar Open University in Hyderabad launched its academic programmes in the year 1983. Later on, Indira Gandhi National Open University, Delhi followed suit. V. Venkaiah examines the strengths of technology and learning support strategies in

Dr. B.R. Ambedkar Open University. Until 1998 BRAOU was confined to self-learning instructional print materials, face-to-face counselling, radio broadcasts and replay facilities of audio and video lessons at the study centres. But later on it also organized live teleconferencing interactive sessions. Audio is still the popular medium in developing countries like India. The recent trend is to use multi-media modes in teaching-learning process. L. Suryanarayana discusses University Concept of Medical and Health Education citing reports and recommendations of Srivastava Committee; Mehta Committee and Bajaj Committee, universities of health/medical sciences can be of three types - (a) integrated universities, (b) academic affiliating universities with campus institutions and (c) resource/affiliating universities with resource institutions only.

(a) Integrated universities of health/medical sciences are expected to be responsible for developing and administering the colleges, hospitals and health care system of a particular geographical area.
(b) Academic, affiliating universities with Campus College and affiliated hospitals administering medical care systems in a restricted area.
(c) Resource/affiliating universities to have responsibility for the education process of admission, education and certification and develop resource and research institutions only.

K.S. Chalam underlines the need to provide extra push to rural university in Andhra Pradesh which remained the unaccomplished experiment. Swamy Ramananda Tirtha Rural Institute was inaugurated as a sponsored institute of the National Council of Rural Institutes at Hyderabad with a concurrence of State Government.

Group dynamics and classroom behaviour is examined by P.V. Krishna Rao and K.S. Chalam. N. Jhansi Rani describes cumulative affect of *Hatha Yoga* on Maslow's hierarchy of needs. The system of yoga emerged as a result of ancient thinker's attempt to transcend human limitations and reach higher levels of consciousness. Research shows that yoga practice brings about a positive change in one's personality. She concludes that practice of Hath Yoga has beneficial impact on its practitioners.

This commemorative volume dedicated to the memory of Prof. K.R. Rao is an assorted volume covering articles and themes so diverse – from *Hatha Yoga* to financing of higher education, from medical university to national integration. It is however, informative and to some extent supplemented by empirical studies which sustain the interest and conviction of a reader.

DPEP-SSA
IGNOU, New Delhi-110068

V.P. Garg
E-mail: depssa@yahoo.com

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Patricia F. GOLDBLATT and Deirdre SMITH (eds.), 2005: ***Cases for Teacher Development - Preparing for the Classroom,*** ISBN 1-4129-1367-5 (Paperback.); Sage Publications Pvt. Ltd.; London; UK, pp.272.

The book provides practical guidance to the teachers and the administrators in understanding the micro politics and intricacies of managing and administering a school. The problems some times look very simple but may not be so, and can snowball as big issues for the schools. The book although having a set of edited cases throws light on very critical issues and camouflaged inside are the solutions which generate out of them. The commentary of the experts in the field provides glimpse of their analysis of the situation, i.e., the reactions vary from individual to individual. The book is worth reading; especially by the teacher trainees, teachers and the administrators of the schools in order to enable their schools to function harmoniously, more over the reflective commentaries of the experts ignites new thoughts in overcoming the problems in a school.

Thirteen cases covering a variety of themes have been covered in the book. For the benefit of the readers the editors have also tried to develop case matrix organized by educational level, focus, and teaching issues. The book has adopted unique way of roping in three to five renowned experts for each of the cases to provide their valuable commentary on the problems encountered by the teachers. The discussion of the commentators which are logical as well critical has provided ample scope to the teachers to obtain a variety of suggestions from different angles and points of view and in fact removed the myopic view points of teachers in understanding the problems and strengthening their thought process in a broader perspective. It will be also observed that yet times the teachers narrating the cases were facing helpless situations but were tolerant. In this sense the title of the book "Cases for Teacher Development" becomes more relevant, because the solutions of the experts not only strengthens them but makes them disciplined and tolerant.

The case on religious tolerance is an eye opener, an oversight of minute aspects of the society and addressing to these issues tactfully in the school which is representative of all the cultures/religions is very crucial, as the school is an amalgam of children belonging to various religions and cultures, yet times the dominant culture manifests in the schools suppressing other cultures. These issues seem to be very simple but many times lead to unrest due to non tolerance and mutually not respecting the religion of others. The case has been very appropriately presented in the context of the present crisis world over, and the commentaries also provided quite relevant remedies to overcome such kind of situations. In fact some of the experts aired their view that such issues should be sorted out in the school council in its inception only.

A similar case focuses on the gender issue of the teacher working in the school, when a male member takes over the role of the kindergarten teacher as a challenge and is very consciously dealing with the children, if any problem arises the society as well as the school management find fault with the male teacher as he is the odd man out. The male teacher in turn regrets and feels guilty for being subjected to indifferent attitude on the

part of the school and society. This is exactly what has happened in this case wherein the male teacher out of sincerity tried to be more careful and concerned with the children in the class assigned to him, but unfortunately has to face an embarrassing situation. Being new to the school some times the teachers tend to do something new and become emotional, but emotions in a job never goes hand-in-hand. One has to refrain from becoming emotional was felt by the experts and made positive suggestions to the teachers.

A wide range of cases have been dealt with a variety of issues of teachers, ranging from teacher trainees, substitute teaching, new entrant teacher and conflicts with extra teacher, and differential teaching processes of the teacher and the home tutor. There are other challenges also faced such as dealing with challenging student, slow learners, troubled students and student cheating. While going through the cases one by one, one gets the feeling that the teachers narrating the incidents are right and needed all the support from the school management, but it will be observed that these teachers are left alone to fend themselves for their cause, the tensions and the traumatic situations they are subjected to as well as the insults they some times have to face is the most ungraceful thing happening not only to them but to the entire teaching community. Although the learned commentators who are high level academicians and experts in the field of education and managing the schools have given their expert comments, sometimes positively, tend to have immersed in their views which are latent in their minds and have manifested in their commentaries. Although, it is not possible for the human being to make a perfect hundred percent assessment, even I may be wrong in my view points about the cases and commentaries of experts. Most probably if we place ourselves in the positions of the teachers who have narrated the cases, I think we may not be in a position to tolerate the indifferences met form the school management and colleagues. It also seems that the teachers have functioned in isolation in these schools, and all the organizational development programmes might have remained as an eye wash. Paul Axle Rod put it very aptly that "there is something amiss in the organization and culture of the schools itself when teachers feel at sea".

For instance, the case on gender issue of a male teacher in kindergarten class, a teacher working with a challenging student, sharing a class by two teachers, engaging in action research in a class by a teacher etc seems to have subjected the teacher to take his agony to home and it was not very enjoyable working in the school. There is lack of support from the colleagues and administration in overcoming such difficult situations. Although the schools seems to be established schools, most of them lacked group functioning and working in team as well as learning from each other, nurturing the new entrants or guiding them in handling teaching and facing the supervision team etc. It seemed in most of the case presentations as well as the critical analysis by the experts that the teachers have to struggle and establish themselves. This type of attitude prevalent in the schools may gradually act as deterrent to the development of the school as a learning organization, whereby the main objective of the school is lost. Moreover, in the long run

the schools might become ineffective as everything is compartmentalised and there is no accountability and attitude of commitment is developed among the teachers.

In this regard many of the growing schools, the management which is very complacent of its expansion loose sight of the organization development and retaining of its well developed culture of mentoring, guiding, problem solving and helping each other, working in team with well established communication channels and many more such positive aspects, to make the school a place of not only learning but enjoying its positive and developmental culture. The cases presented by the teachers very well articulate the problems they are facing in handling the classes effectively. The commentators who are senior professionals have also done a wonderful job by airing their views with appropriate suggestions.

The methodology followed in making the format of the book as well as the selections of cases is of immense value. A detailed glance through the book particularly by the school heads/principals and the management will definitely improve the functioning of the schools. The problems faced by the teachers are not the problems but are the eye openers for the school administrators as well as inputs for the schools. Such problematic issues are to be sorted out in order to make the school a dynamic learning organization

NIEPA
New Delhi-110016

B. K. Panda
E-mail: bkpanda@niepa.org

Theodore, CREIGHTON (2005): ***Leading From Below the Surface: A Non-Traditional Approach to School Leadership***. California; Corwin Press; ISBN: 0-7619-3953-9 (Paperback); pp.: 98; Price: $24.95.

Children today have much more than purely educational needs. They come from diverse backgrounds that do not always favour education. No single institution can assume the full responsibility for creating the conditions that children need to flourish. When it comes to educational institutions, the most crucial aspect that determines children's educational experience is the leadership in schools. School leaders need to create a new kind of organizational structure.

Creighton presents a conceptual framework based on an organizational theory emphasizing the importance of school leaders. He introduces the important strategy of leading from below the surface. To explain how this concept can be utilized to shape successful school leadership, Creighton relies on practices of business managers. He presents a new concept of how business management skills can be adopted to meet the needs of educational leaders at all levels.

According to Creighton the present approaches to leadership, including Behavioral, Situational, and others do not completely explain the strategies employed by certain great leaders. Truly effective school leaders possess a third group of traits/behaviors. These are the essential qualities of a school leader to lead from below the surface. This concept

links the different chapters keeping the attention focused on leadership skills in school practice.

Simply put, leading from below the surface involves resisting the temptation to focus on just what we see on the surface and instead exploring and investigating much further to get at the core issues which remain neglected. Creighton reiterates that we tend to focus on the more visible and obvious when it comes to evidence of effective learning. This evidence could be test scores, attendance data, discipline referrals and report card grades. These indices highlight the average and above average students ignoring the ones who perform poorly. The real attributes and successes of some students are not clearly revealed by test scores and report card grades.

Leading from below the surface involves two significant dimensions. First, expanding decision-making beyond the formal and obvious places (i.e. a shift in decision-making from school boardrooms to the hallways, community centers, playgrounds and school kitchens) and second, moving from data based decision making to a deeper perspective utilizing evidence based decision-making. Effective principals are those who focus on each of these areas. Further, leadership needs to have both objective as well as subjective dimensions. Decision-making needs to be both facts driven and based on the feelings, beliefs and values of others. This includes the invisibles and intangibles, such as teachers' attitudes and beliefs, community members' feelings and state and county educators' perceptions.

Other key factors that enable leaders to make careful and cautious decisions include how to follow rules without breaking them, collaboration, practicing leadership, building political capital, time management skills etc. One of the most important of the above-mentioned aspects is collaboration. Creighton brings out the importance of collaboration by comparing it with cooperation. The common simple partnerships between schools and businesses, social services and government agencies, civic groups and parents, are examples of cooperation. When these partners are busy with day to day mundane tasks and responsibilities such as organizing school calendars, hosting teacher lunches etc., there is cooperation between them but no collaboration. Creighton points to the importance of shifting focus from cooperation to collaboration.

To master these strategies, Creighton employs William Isaac's model in "Dialogue and the Art of Thinking Together" illustrating the three levels of human interaction. The first level, capacity for new behavior, deals with the importance of practicing leadership skills centered on teaching and student learning. The second level, predictive intuition, is all about developing an intuitive understanding, and the third level, architecture of the invisible, deals with the individual spaces of thinking and understanding that each person works in and the importance of being conscious of it.

In the process of overcoming resistance to any new strategy, Creighton mentions Kurt Lewin's force field analysis to help understand where resistance comes from, what it represents and its magnitude. In the end Creighton mentions greater accountability and online learning as important changes that affect education.

The author has a lucid style of writing. The text is reader friendly and replete with examples making the understanding of concepts easy and keeps the reader engrossed in it. Creighton presents real life scenarios that make his work worthy enough to be used as a guide for school leaders.

S-505, First Floor
Greater Kailash-II, New Delhi

Ketaki Saksena
E-mail: ketakisaksena@yahoo.co.in

M.V. MUKUNDAN (2004): ***Education and Decentralization: A Case Study of India's Kerala State***. China, Liaoning People's Publishing House; ISBN 7-205-05817-1 (Paperback); Pages: 293; Price: 38 Yuan.

This is yet another book on the issue of decentralization, having the much-written-about 'Kerala model of development' as its site. The focus, however, is on the education sector which has not received much academic attention in various reviews of the impact of the People's Campaign for Decentralized Planning (PCDP) in this southernmost Indian state. The book, originating from the thesis the author presented for his Doctoral Degree, has as its primary research enquiry the impact that politics of decentralization, as evinced through the PCDP, has had in the state of Kerala over the period 1996 to 2002.

The introductory chapter contextualises the study in terms of the geographical sites, India and within India the state of Kerala, and provides the research framework along with the research questions. The theoretical foundations of the study are laid out in Chapter 2 with the focus on the three key concepts of control, continuity and change. Types of decentralization are also elaborated to contextualise the site of the study – Kerala – as exhibiting territorial decentralization, which according to the author is a medley of all its three sub-categories, delegation, devolution and deconcentration. Chapter 3 attempts to locate the historico-political trajectory of the state of Kerala, dealt with in the subsequent chapter, within the broader trajectories of the nation state. As stated by the author himself, Chapters 2, 3 and 4 comprise predominantly a review of the literature in the above-mentioned areas. While Chapter 5 elaborates the methodological part of the research, the subsequent two Chapters, 6 and 7, present an overview of the two selected sample districts – Kannur and Kasaragod – in the backdrop of the decentralization process of the PCDP. The final Chapter attempts to elaborate the theoretical underpinnings of the study outlined earlier in Chapter 2 as also the impact of decentralization in continuity and change in the education sector through the findings from the study.

The book, as noted in the foreword by the author's supervisor, aims to expose the contradictions of decentralization and emphasize the gaps that may exist between policy and practice. However, it relies heavily on observations from policy documents and the analysis leaves much to be desired in exposing the gaps through testimonies on practice that would have formed much of the data of the author's fieldwork. This approach also

weakens the validity of the observations, which seem to present more the 'official viewpoint' rather than a critical analysis of the different structures and plans and policies effected through them. It seems that out of the three main purposes that the author has articulated as the basis for his research endeavour, that is, (i) documentation and analysis of the decentralization phenomenon in Kerala, (ii) examination of policy issues, and (iii) theoretical exploration of concepts of continuity and change, only the initial part of the first, documentation, has received considerable, if not, the entire attention of the thesis.

The introduction fails to trace the emergence of 'decentralization' as a politico – economic category and points only to the symptoms of recent global patterns – structural reforms – as the main issue. Though the link of decentralization to education draws on the idea of developing 'human capital' as the dominant government agenda, important political questions raised by critiques are not underscored. This includes that of decentralization of education being a strategy to build the base for a reliable and qualified workforce that would serve to cater to the trade and economic interests of developed nations [for example, see Vasavi (2003); Kamat (2004)].

Though interesting issues about the history of socio-political and cultural unity and diversity are raised in sub-sections of Chapter 3, which could have become the basis for exploration of this issue within Kerala and particularly within the context of education, the subsequent chapter (Chapter 4) fails to draw a link and digresses to the oft-cited development indicators that distinguish the 'Kerala way to development' from the rest of the country. A simplistic reading of post-Independence education as being liberal and secular discounts the colonial origins of the education system and its dominance and reinforcement by the existing elite in independent India [for example, see Krishna Kumar (1998)].

As there have been earlier experiments towards decentralization in the two selected sample districts which the author himself cites, it would be necessary to segregate these probable conflating impacts, that of the Kalliaserri Model and Sivapuram Education Complex in Kannur, and of the District Primary Education Programme (DPEP) in Kasaragod. While analyzing the aspects of continuity and change, the underlying framework concerned is typical with the education sector and range from issues such as 'setting of educational standards', 'curriculum changes' and 'student evaluation' to those of 'school infrastructure', 'teacher recruitment' and 'education financing'. The analysis seems to imply that all the above aspects would be attributable to Panchayati Raj Institutions (PRIs, referred to by the author as LSGIs: Local Self Government Institutions) in a decentralized system and does not aim at a realistic assessment of responsibilities, authority and power of the PRIs with respect to the delegation of powers outlined as policy (earlier referred to by the author in Ch. 6, pp.142-143). What is of concern is the author's ambiguity with the specific theoretical foundations of the study. Encompassing a theoretically diverse literature review, the author's framework of analysis, whether socio-cultural, politico-economical, or management-organizational, and his specific theoretical underpinnings, remains unfocussed.

Does the development of decentralized institutions invariably imply the strengthening or consolidating of civil society and positive developmental outcomes in terms of community participation and greater responsiveness on the part of government agencies? Does the proliferation of multiple structures (both civil society institutions and PRIs) at the local level endanger their viability and sustainability? Can mobilisational and organizational capacities of these decentralized institutions be linked to factors such as caste, gender, socio-economic conditions, and existing power structures? The above questions are important as these require immediate attention and still remain unanswered with respect to 'education and decentralization'.

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National Institute of Advanced Studies
IISc Campus, Bangalore – 560012

Rahul Mukhopadhyay
Email: rahul@nias.iisc.ernet.in

Francoise CAILLOIDS and Jacques HALLAK (2004) ***Education & PRSPs: A Review of Experiences,*** Paris, France: UNESCO, International Institute for Educational Planning, ISBN: 92-803-1263-4 (Paperback), pp.: 168, Price: Not mentioned.

This publication appraises the PRSPs of countries that had completed full PRSPs by May 2003 (or were close to completion by then). The main purpose of the book, as the title indicates, is to evaluate the focus on education in these PRSPs.

This review will first make some overall comments about the book and then go on to make some brief, specific comments about every chapter.

The authors provide a comprehensive picture of the role of education in the PRSP process, documents and implementation. They study the overall conceptual framework within which PRSPs are developed and the process of PRSP preparation. They effectively maintain the focus on education while also providing unfamiliar readers with a basic grasp of the nature of PRSPs in general. The book goes on to detail the education agenda in the PRSPs, the implementation thus far of this agenda, and concludes with an interesting chapter on key emerging issues.

While the book is written clearly in general, it is sometimes not obvious from the statements made due to ambiguous wording used whether the authors mean to criticize a particular issue or just state a fact. It would be better to be more obvious about whether

they are suggesting that things could have been done better or differently. For example, on page 18, there is a comment made about the standard format used in the PRSPs across different countries. It is not clear whether the authors think that non-standard formats should be used or whether they are just informing the reader about this fact.

The authors do not raise the concern of whether the PRSP itself is too ambitious or too all-encompassing a task for any country to undertake. They do not discuss an important question: 'Is it possible to use a document such as this to give enough attention to each individual sector like education or are there any better alternatives?' It would perhaps have been useful to at least discuss possible alternatives. One such option could be a full fledged education strategy paper (which the authors mention were being prepared in many countries), or only a summary in the PRSP focusing on those strategies which are most relevant for poverty reduction with appropriate references to the education strategy paper.

The issue of country ownership which is supposed to be central to the PRSPs is raised often in the book. However, it could have been discussed as an overall cross cutting issue in the final chapter to assess how well this has been achieved. While it is mentioned again in the final chapter, perhaps some parameters could have been developed to judge to what extent country ownership has been achieved. There are hints during the entire book that perhaps the role of the IFIs has been too dominating but this is never fleshed out fully. From a long term perspective and the point of view of sustainability of these strategies, this is a crucial issue that should have been elaborated upon further.

The book begins with a well written, succinct executive summary followed by a brief introductory chapter. Chapter 1 sets out the conceptual framework to familiarize the lay reader with a PRSP. It emphasizes the PRSP's multi-disciplinary, inter-sectoral approach towards reducing poverty. In the context of education and training, the authors point out that while the PRSPs are based on the theory of human capital and an integrated development agenda, they do not, in general, take account of newer theories of teaching and learning. This is a crucial observation which they flesh out in later chapters. They also make an important point about the fact that little is known about the process of integration across sectors and this is reflected in the PRSPs.

Chapter 2 discusses the involvement of education stakeholders during the preparation of PRSPs. A significant issue that is not discussed in any detail either in this chapter or any of the following ones is that of how the stakeholders deal with the financial and institutional constraints during the preparation of a PRSP. Explicitly recognizing these and setting out mechanisms to deal with them would be critical to the success of a PRSP. For example, while the authors comment that the capacity of civil society to contribute to the process varied greatly across countries, it is not clear whether the PRSPs recognize this and set out specific capacity building mechanisms for the future. The authors indicate that the links to other sectors and the multi-sectoral context of the PRSP are not as strong as they could be from the point of view of the education sector. This is a vital issue.

The next chapter focuses on the education agenda in the PRSPs. The authors raise a notable concern that most of the PRSPs reviewed refer to only a sub-set of the education related MDG and EFA goals. They attribute this to the fact that there is no clear framework linking the education agenda to poverty reduction and to education goals being somewhat vague in many countries. However, they do not reveal whether the PRSPs recognize this limitation and set out capacity building measures to help make targets and strategies more specific and more closely linked to poverty reduction. This recognition would be critical to an improved education agenda in the future PRSPs of these countries. Nevertheless, the authors effectively use selected illustrations from the PRSPs of different countries to make their point. While there is a reference made to the lack of consistent strategies for non-formal education in this chapter, it does not explicitly mention whether the education strategies in the PRSPs are tied to child labour issues. In some countries, this would certainly be a vital link to make.

The authors refer to various education policies that have been successfully incorporated into PRSPs. They lament, however, the lack of "innovative teaching/learning reform" in the PRSPs to target the specific needs of children from poor households. The authors also point out some crucial cross cutting themes that the PRSPs link with education. These include empowerment, the promotion of gender equality, and HIV/AIDS. They find that most of the PRSPs do not adequately address the latter two from the education point of view. They explain that while several PRSPs have some strategies to reduce gender differences in education, they do not have a comprehensive strategy. It would have been interesting to take this a little further and outline what a comprehensive strategy could look like. The book does not mention some other policies that might also be important from the point of view of these children such as policies and strategies for multi-grade teaching which is a reality in many countries.

Chapter 4 discusses implementation. An important finding the authors report is that most PRSPs assess additional capital expenditures but do not do the same for the additional recurrent expenditures that would result thereof. Their overall conclusion, which is certainly of great concern as it is critical to successful implementation, is that costing of the education component is a weak feature in many PRSPs. However, once again they do not indicate whether the PRSPs explicitly recognize this weakness and seek to improve upon it in future iterations. The authors mention that some PRSPs have costed alternative scenarios given the uncertainty in the availability of funding. Perhaps the authors could have suggested that this is an encouraging trend as costing using sensitivity analysis for different scenarios is useful for all proposed policy changes.

Chapter 4 also comments on the monitoring mechanisms put in place by the PRSPs. An important matter that is not mentioned by the authors is whether the PRSPs demonstrate that policy makers are aware of the differing data needs at different levels of administration. This is vital both from the point of view of efficient monitoring and of keeping monitoring costs within reasonable limits. All data do not need to be collated up to the centre as is generally done in many developing countries. Another issue that is not

talked about at any length is that of impact evaluation. The authors conclude the chapter with an interesting discussion on monitoring indicators for education in the PRSPs.

The next chapter highlights critical issues and prospects. One of the key issues the authors point out is the fact that the optimistic scenarios used for projecting finances lowers the financial credibility of PRSPs. Here again it would have been useful to emphasize the need for better techniques for costing based on alternative scenarios. This is related to the lack of focus on capacity building in the PRSPs that the authors allude to.

Chapter 6 concludes the book raising five vital issues: the financial uncertainty that PRSPs have to deal with, the conceptual ambiguity about the relationship between education and poverty reduction, the need for better links across sectors, the need for more and better capacity building, and the conflict between the participatory approach to the PRSP process and the key role played by the Finance Ministries of most countries in the process.

Overall, this is a very interesting review of the PRSP process so far. It is useful reading for education policy makers and education task managers in international financial institutions alike.

7, Ipil Street, Valle Verde 3
Pasig, Metro Manila 1604, Philippines

Vandana Sipahimalani Rao
E-mail: vsipahimalanirao@yahoo.com

Adama, QUANE (ed.) (2003): ***Towards a Multi-lingual Culture of Education***, Hamburg; UNESCO Institute of Education; ISBN: 92 820 1131-3 (Paperback); pp.: 469+xxi, Price: Not mentioned.

The central theme of the book is on the issue of language education in a multilingual society. The first part of the book, consisting of six chapters, deals with various theoretical aspects of language education and medium of instruction in a multilingual society. The second part in thirteen chapters discusses the language issue in the developing countries as whole, the scenario in Africa in general with particular reference to the impact of colonization on language policy, the socio-historical conditions that have contributed to the existing multilingualism in Latin America, and the language situation in India. The major portion of the second part of the book is devoted to presenting some case studies on language education, drawn from Africa, Latin America and India. The second part of the book is largely based on the conclusions of an international research project conducted by the UNESCO Institute for Education into the question of mother tongue in literacy and basic education in a multilingual setting.

The book upholds the principle of providing initial or school education through the medium of the mother tongue and elaborates on the merits of using mother tongue in education. At the same time it also presents the most difficult problem faced by education in mother tongue in a multilingual society, viz. the demand as well as the need for education through the dominant language, whether foreign or native. An issue considered

in the book in this context is about the medium of education in the former colonies where the language of the colonisers still prevails as dominant. Another related issue discussed in the book is that of national or official language in a multilingual country.

The case study from India presents the experience that a group of Bundeli speaking women from the state of Uttar Pradesh had in the process of transition from orality to literacy in Hindi. The study from Latin America on Ecuador, where Spanish is the national (official) language, and Quechua and other native languages are recognized as integral parts of the national culture. When Quechua or any other language is used as medium instruction in school, Spanish is the intercultural second language.

The case studies representing Africa are from Nigeria, Angola, Niger, Senegal and South Africa. About 50 per cent of the population of Nigeria (a country of over 400 languages) speaks Hausa, Yoruba or Igbo. These three languages have been proclaimed as 'major languages' in Nigeria. As per the language policy in Nigeria, medium of instruction in primary school is mother tongue or language of the immediate community initially and English at a later stage (from the 4th class of primary school). The book discusses three experiments in the use of mother tongue in literacy and basic education in Nigeria. Official language of Angola is Portuguese and is used as medium of instruction in education. The book presents a programme of promoting the national (native) languages in Angola funded by the UNDP and executed by the UNESCO during 1978-1992. This project tried to introduce literacy education in six selected national languages of Angola. But Portuguese continues to be the preferred language for education as well as public use. The case study from Niger deals with three types of schools and where French is the official language as well as the medium of instruction in 94.2 per cent of the primary schools. In the experimental schools that account for just 1.6 per cent of the primary schools, mother tongue is taught during the first two years and transition to French takes place in the 3rd year. From the 4th year medium of instruction is French and mother tongue remains a subject of instruction. In Madarsas (4.4 per cent of the primary schools in Niger) both French and Arabic are used. In Senegal, French is the official language and is used in formal education. Six of the native languages are officially recognized as national languages. The experiments in education through native languages undertaken so far have failed. In post-apartheid South Africa there are eleven official languages including English and Afrikaans. There is great demand for English education among the black families. The case study discusses three strategies of language education in South Africa, in which English as well as mother tongue figure as languages of school education.

The book is an excellent exposition of the issues involved in language education in a multilingual society. It presents the ideological stand of education through mother tongue and advances all arguments in support of it. This ideological trend can be perceived in some form or other throughout the book. At the same time the book is also a demonstration of the stark reality of language domination in a multilingual setting. The overwhelming practical preference shown for education through the dominant language shows the difficulty or impracticality of the ideology of mother tongue education at the

level of ground reality. There are several statements and references in the book itself that make the ideological stand in mother tongue education, or more precisely mother tongue education without proficiency in the dominant or official language, undesirable. Following are a few illustrations. "It fails to give importance to the fact that official languages are also languages of governance and power, and it is imperative that marginal groups enter into a critical engagement with them" (p. 251). In the case of adult education in mother tongue that is not the official language, how useful is it for adults "to learn and write in a national language if there is no one to read the letters they write to the authorities or the complaints they lodge with the courts? They will be unable to consult the verbatim reports of the various meetings in parliament or in the rural council" (p. 410). Probably the strongest ideological statement in this line of thinking is the reference to Freire and Macedo. "Giving power and responsibility to learners requires them to master the dominant language in society, failing which they are in danger of being reduced to silence and of sacrificing their voices, the only means at their disposal through which they can make sense of their own experience in the world" (p.454).

The book has no solution to the problem of mother tongue education in a multilingual society. In fact the author has made it clear in the introductory chapter. "The book does not set out to avoid the problem, still less to provide definitive and immutable answers to the questions raised. The discussion is thus going to be far from closed, since the complexity of the situation, the subtlety of the arguments and the stubborn nature of the interests present make it impossible to arrive at a settled and definitive view, acceptable to all the protagonists" (p.11). The book recognizes some of the questions that the ideology of mother tongue education cannot satisfactorily answer. Does not denial of education through the dominant language in fact add to inequality or amount to discrimination? Is it possible to escape the issue of imposing one's language on others in the context where one or more (but not all) languages are accepted as national or official? The author admits that the arguments of the proponents and antagonists of a policy for mother tongue are often irreconcilable and that language problems are rarely settled in a rational way (p.94). The best conclusion that emerges from the book probably is the statement of the author in the concluding chapter of the first part of the book. "In a multilingual and multicultural context, education in the mother tongue is often an ideal that is difficult, not to say impossible, to achieve and parents frequently have to think about the advantages that widely spoken languages can offer" (p.147). The book has presented the complex problem in its multifarious dimensions and shown that there are no easy solutions to it. The case studies seem to supplement it with a message that it is for each country to consider its own configuration of the multilingual situation and demands of the socio-political scenario, and frame a language policy that serves it best. In this context one may appreciate the three-language policy in India that makes an attempt to reconcile the principle of mother tongue education with proficiency in the dominant language in a multilingual democratic setting.

A2/B3 Periyar Hermitage
Thakkattukara P.O. Aluva-683106, Kerala

Jacob Aikara
E-mail: jaikara@vsnl.com

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Robert E. MARTIN: ***Cost Control, College Access, and Competition in Higher Education.*** Cheltenham, UK: Edward Elgar; 2005; pp. 247 plus index (hard bound); Price: £59.95; ISBN: 1 84376 953 0.

Unlike many modern neo-liberal economists, the author of the book under review begins his excellent analysis of some important economic aspects of higher education, with a discussion on the increasingly less valued principle of 'social contract,' a contract between older generation, the younger generation and the education system. The contract is simple· the present generation of adults finances the education of the children of the future. The principle rests on the bonds between the present and future generations, and between society and its collective children, which constitute the bedrock upon which every successful civilization rests. The responsibility one generation feels towards those that follow is a valuable public asset. The mechanism works through the method of taxation: the present generation of tax payers pays for the education of the future generations.

The author rightly feels that the principle of social contract is in jeopardy, mainly due to rising costs of higher education. The real cost of higher education has gone up steeply over the years in USA like in many other countries. This is due to rise in real wages, overhead costs, costs of administration, general inability to make innovations and decline in faculty productivity levels. The rise in costs of higher education has an adverse impact on quality of higher education and equally importantly on access to higher education, as demand for higher education is negatively influenced by the rising costs. The rising costs of higher education also impact the behaviour of the institutions on the one hand, and on the other the behaviour of the supplier of funds – the state, the endowments etc. Though academic institutions are unlike commercial firms, some principles of firms are relevant for academic institutions. The author provides an excellent analysis of applying some of the general principles of firms to academic institutions. As the author states in the foreword, there are three objectives of the book: to present an integrated model of the representative higher education institution where the objective of the institution is maximization of quality reputation; to explore the relationship between access to and costs of higher education; and to frame a public policy issue, viz., what type of competition among higher education institutions is socially optimal. The author attempts to cover all the three aspects in a volume of about 250 pages.

In Chapter 1, the author analyses the rising costs of higher education, including the rising labour costs, the changes in staff-student ratios in public and private institutions, trends in GRE/SAT scores, growth in population, changes in technology, etc., and how all these affect the principle of social contract. Chapter 2 describes the similarities and differences between higher education institutions and commercial firms. When the environment is uncertain, when information is asymmetric, and when quality cannot be determined in time, Martin argues that both in case of academic institutions and firms, it is only reputation that matters. Therefore, the objective function of the academic institutions includes not just maximisation of human capital, but also maximisation of

prestige and reputation. In fact, academic behaviour of many institutions can be explained mostly in terms of the objective function that maximises reputation. Further, unlike firms, academic institutions do not necessarily aim at minimising the costs. However, cost functions do exist in case of academic institutions that aim more at the maximisation of human capital or prestige than at minimisation of costs. Chapter 3 unravels some of these issues relating to cost and product functions. The author emphasises the need to be serious with mechanisms of cost control, though it is becoming a 'boring and dismal issue.'

Philanthropy is an important part of higher education in USA, though commercial principles also dominate the behaviour of many academic institutions. The analysis of the charity market versus the enterprise model in higher education made in Chapters 4 and 5 is quite useful. The third objective of developing a type of socially optimal cooperation among higher education institutions is addressed in Chapter 6, disusing price and product differentiation in public and private institutions. While cooperation among commercial firms may lead to oligopoly, and normally at the expense of the pubic, the author feels that cooperation among non-commercial organizations like the higher education institutions may benefit the public interest. The author also favours cooperation among the various charity organizations to pool the recourses under a single umbrella organization. The various factors that influence demand for education are analyzed in Chapter 7.

The book provides an interesting blend of conceptual, theoretical, methodological and empirical aspects on costs of higher education that are key to understanding how higher education institutions operate. The author examines in detail the complexities involved in the application of principles of firms to academic institutions, such as pricing, cost functions, product functions, quality, product differentiation, subsidies, competition, technology, risk bearing, etc. The examination of how charity market works, the economic forces that explain the demand for and supply of endowment funds is quite insightful. By emphasizing the public good nature of higher education, the social purpose it serves, the principle of equality in higher education, the principle of social contract, erosion of public trust, etc., while addressing a broad set of standard issues in economics of higher education relating to costs and quality of higher education, the book indeed forms a special reading on the subject. Though the study is largely confined to higher education in US, and the author makes no attempt to broaden it, the issues covered make it useful for researchers outside US as well.

NIEPA
New Delhi-110016

Jandhyala B G Tilak
E-mail: jtilak@vsnl.com [or] jtilak@niepa.org

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