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Youth Unemployment in India
– A Situational Analysis

Arabinda Acharya*
S.K. Mohanty$

Abstract

This paper seeks to examine the levels and differentials in unemployment among youth in India and major states, using unemployment in the principal usual status for the analysis. The result of the study suggests that the level of unemployment rate among youth is higher in better educated, in females, in urban areas, and in higher income groups. It also reveals that Kerala has the highest youth unemployment rate among major states in India. Further, attempt is made to comprehend the percentage of youth unemployment to total unemployment. The study reveals that youth unemployed as percentage of total unemployed has increased from 45 per cent in 1993-94 to 61 per cent in 2004 which is a major cause of concern for those who are looking forward for economic development by demographic dividend keeping in mind the large chunk of growing population, especially youth population in India.

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Background

The United Nation defined young people as the persons between the ages of 15 to 24 years (UN, 2003). They constitute about one fifth of world population and estimated at almost 1.2 billion by 2006 (UN, 2004). This cohort is better educated, healthier and more urbanised than earlier generations. However, young people face many challenges today, particularly the economic and social uncertainty. According to the International Labor Organization (ILO) estimation, the young people between the ages of 15 and 24 comprise around 18 per cent of the world's population while they constitutes around 41 per cent of the unemployed (ILO, 2001). In addition, many young people continue to suffer from poverty, discrimination and inequality, and a large proportion's lack of access to proper education and health services (UN, 2003). The areas of concern addressed at the Millennium Summit are directly linked to most of the global youth priorities, including education, employment, hunger and poverty, health, girls and young women, globalization and HIV/AIDS (UN, 2000).

In Indian situation, youth also constitutes about one-fifth of total population and is estimated at 195 million in 2001. It is projected that the size of youth population will be about 195 million by 2001 and 240 million by 2011 (National Commission on Population, 2006). The growth rate of youth population is faster as compared to any other age group. They are not a homogenous group with wide variation in educational, health and economic well-being. The more challenging is the increasing insecurity in the labour market. The slow growth rate of employment not only aggravates the overall unemployment but also the youth unemployment, particularly in post economic reform period in India. The young unemployed as per cent of all unemployed (according to principal usual status definition) constituted about 31 per cent of total unemployed in 1987-88 and 45 per cent in 19993-94 (Visaria, P., 1998). Since youth are the new entrant of labour market, unemployment affects the economy as well as the psychology of the youth.

In India, the Census and National Sample Survey Organization (NSSO) usually collects data on employment and unemployment in its decadal and quinquennial survey. The methodology adopted to collect the information on employment and unemployment situation is different, whereas the methodology and information adopted by the NSSO is more consistent and also internationally comparable as compared to the Census information. The first quinquennial survey on employment and unemployment situation in India was carried out in 27th round 1972-73 based on the recommendation of Dantawala Committee (Planning Commission, 1970). As of date, seven rounds of employment and unemployment survey (27th round, 32nd round 38th round, 43rd round 50th round, 55th round and 60th round) have been completed. The definition and procedure used by the NSSO is same in all rounds. The definition of the unemployment not only permits to compare with past data but also the cross-country comparison of the world. In all these rounds, the persons are classified into three broad activity statuses namely, (i) working or employed, (ii) unemployed, and (iii) not in the labour force.

These informations are collected using three basic approaches, i.e., principal usual status, current weekly status and current daily status

(i) **Principal Usual Status (US):** Here the reference period is 365 days preceding the date of survey. The question asked is: during the major time of the reference year,

was the person working or available/seeking for work (yes/no)? If yes, they are considered under labour force. Further, it was asked whether he/she spent most of the time on work (yes/no)? If no, he/she is termed as unemployed.

(ii) Current Weekly Status (CWS): Here the reference period is 7 days preceding the date of survey.

(iii) Current Daily Status (CDS): Here the reference is each day; it refers to each day of the seven days preceding date of the survey.

The following examples will help in illuminating the procedure for making out broad usual principal activity status of individual as well as to define the unemployment phenomenon. Among these three basic approaches, the principal Usual Status (US) reflects the long term spell of unemployment. On the other hand, the CWS and CDS reflect the seasonal variation and usually give higher estimates than usual status.

Person	Number of Months			Usual Principal Activity Status	Remarks
	Employed Labour Force	*Unemployed Labour Force*	*Not in Labour Force*		
A	5	4	3	Employed	
B	4	5	3	Unemployed	Employed in subsidiary status (SS)
C	4	3	5	Employed	
D	4	1	7	Not in labour force	Employed in (SS)
E	3	3	6	Employed	
F	1	0	11	Not in labour force	Employed in (SS)

Source: NSS 60th round Report No 506 (60/10/1) "Employment and Unemployment Situation of India".

Rationale of the Study

In recent years, increasing global unemployment has hit young people hard (UN, 2003). Youth are faced with high level of economic and social uncertainty compared to adults. It has also been estimated that a one per cent increase in adult unemployment will be matched by a 2 per cent rise in unemployment among young people (Makeham, 2001). The link has been clearly established between youth unemployment and social exclusion (ILO, 2004). In Indian context, there has been an evidence of rising unemployment in 1990s, particularly in post economic reform period. The growth rate of employment was 2.01 per cent during 1983-94 as compared to 1.84 per cent during 1993-94 to 2004-05 (Unni, J & Raveendran, G, 2007). While the growth rate of GDP continued to be more than 6 per cent in 1990s (recent years it is more than 7 per cent), but there was clear trend of decline in the growth rate of employment during this period. In addition to this, the age structure of the population indicates larger addition to the labour force in coming decades (refer Appendix 4).

Objectives

The broad objective of the paper is to understand the levels and differentials of unemployment among youth in India. The specific objectives are to:

(i) examine the levels of unemployment among youth by age, sex and place of residence;
(ii) examine the differentials in unemployment by educational level, economic status of household and social groups;
(iii) assess the interstate variation of unemployment rate in India; and
(iv) estimate the magnitude of unemployed youth in India and states.

Data and Methods

To carry out the study, NSSO 60th round data (schedule 10) is used for the analysis. The schedule 10 is given in 11 blocks and six levels. Like the conventional NSSO data, blocks 0, 1 and 2 are used to record identification of sample households and particulars of field operations and 9, 10, and 11 blocks are used to record the investigator's remarks. To carry out the present study we have used block 3 & 4. Block 3 is for recording the household characteristics along with information on Monthly Per capita Consumption Expenditure (MPCE). Block 4 is for recording the demographic information and unemployment by usual principal status for all members in the households. These blocks are used in the analysis. The total un-weighted sample for India was 59,159 households and 204,403 persons. However, the weighted sample was about 199 million households and 956 million people. The analysis is carried out in STATA-10 software, using weighted sample. The unemployment as defined in the principal usual status is used. The variables used in the analysis are age, sex, place of residence, general education, technical education, marital status, caste, religion and MPCE.

The following computations have been made:

1. Youth unemployment rate;
2. Youth unemployed as percentage of total adult unemployed; and
3. Estimation of youth unemployed by state.

For estimation on the size of the unemployed, the population projection report of National Commission on Population is used. The multivariate technique is used to examine the statistical significance in differentials in unemployment.

Discussion

The analysis is presented below under three heads: the profile of youth with respect to their educational and work status, the level of employment by age, sex and place of residence; the differentials in unemployment by MPCE, educational level, marital status, caste and religion of youth; the regional pattern of unemployment and estimates of the unemployed.

Profile of Youth

The level of education of a country not only reflects the socio-economic factors but it also illustrates the country's level of human capital development. The general educational level of the young people showed that (see Appendix 2), about one-fifth (21.20 per cent) are not literate, at least half of (49.47 per cent) are below middle, 15.29 per cent are secondary, 9.49 per cent have higher secondary, 0.39 per cent diploma and certificate course and 3.66

per cent are graduate and above in 2004 in India. The level of education is lower among the females as compared to males. The educational level by place of residence showed that in rural areas, about one-fourth (25.59 per cent) young people are not literate as compared to one-tenth (9.94 per cent) in urban areas. The differentials in other categories and by sex are also observed.

The main concern is the low level of technical education among youth in the population. It is found that only 2.42 per cent youth had some technical education in the country. It is 2.92 per cent among males and 1.87 per cent among females. The level of technical education is 1.37 per cent in rural areas as compared to 5.09 per cent in urban areas.

The work status has been regrouped into six groups as own account worker, employer, work as helper in household enterprise, work as regular salaried or wage employee, worked as causal wage labour/any other types of work and did not work but was seeking and/or available for work (unemployed). It is found that about 12.32 per cent are working as own account worker (self employed), 0.12 per cent as employer, one-third (31.35 per cent) worked as helper in household enterprise (unpaid family work) 13.93 per cent worked as regular salaried /wage employee and one-third (33.67 per cent) worked as casual wage labourers in public works and any other type of works.

Unemployment in Broad Age Group (15+) in Sex and Place of Residence

The level of unemployment on broad age group by sex and place of residence is shown in Table 1. The unemployment is estimated at 3.04 per cent for the country during 2004 by principal usual status. It is highest in the age group 20-24, i.e., 8.7 per cent followed by 8.5 per cent in the age group 15-19 years. The unemployment among youth (15-24 years) is estimated at 8.6 per cent. It is observed that the unemployment rate is higher among the females (9.2 per cent) as compared to males (8.4 per cent).

TABLE 1
Percentage Unemployed in Broad Age Group by Sex and Place of Residence in India, 2004

Age Group	Total			Urban			Rural		
	Person	*Male*	*Female*	*Person*	*Male*	*Female*	*Person*	*Male*	*Female*
15-19	8.49	9.27	6.19	13.09	13.19	12.63	7.27	8.10	5.07
20-24	8.69	7.87	11.28	14.37	11.47	30.31	6.72	6.43	7.53
15-24	8.61	8.41	9.22	13.93	12.05	23.62	6.95	7.11	6.52
25-29	4.82	4.45	5.89	9.06	6.93	18.94	3.44	3.52	3.22
30-34	2.05	1.57	3.26	3.62	2.54	8.26	1.50	1.17	2.21
35-59	0.51	0.54	0.42	1.05	1.11	0.77	0.33	0.32	0.36
60+	0.06	0.06	0.07	0.25	0.30	0.00	0.03	0.02	0.08
15+	3.04	2.93	3.32	5.33	4.53	9.01	2.32	2.36	2.23

The differential in unemployment among youth by rural and urban showed that the level of unemployment is 6.95 per cent in rural areas as compared to 13.93 per cent in urban areas. The differentials are statistically significant shown in multivariate analysis (Table 6).

Similarly, in urban India it is found that unemployment rate in women (23.6 per cent) is higher as compared with men (12 per cent). But in the rural India unemployment levels among females are somewhat less likely with their counterpart males (6.5 per cent, compared with 7.1 per cent for males).

Differentials in Unemployment by Educational Level, Marital Status, Economic Well-Being and Social Groups

The NSS provides information on MPCE, which is used as proxy to household income. The MPCE is divided into five quintiles, reflecting from the poorest to the richest in the population. The differentials of unemployment by MPCE Table (2a) showed that it is 4.8 per cent among the poorest quintile, 8 per cent among second poorest quintile, 9.5 per cent among middle quintile, 11.8 per cent among second richest quintile and 14.9 per cent among the richest in India. The pattern is similar in urban and rural areas with higher prevalence among urban areas. It is one of the critical indicators of understanding the level of unemployment by economic status of the population. Also, the study reveals unemployment among educated youth (graduate and above) in low economic status of selected states of India. It is found among poor educated youth (who are graduate and post-graduate and belong to the poorest quintile of MPCE), about 78 per cent are unemployed in Kerala followed by 55 per cent in West Bengal as shown in Figure 1.

FIGURE 1

Percentage Unemployed among Youth Belonging to Low MPCE Quintile with Graduate and above Educational Qualification in Selected States of India

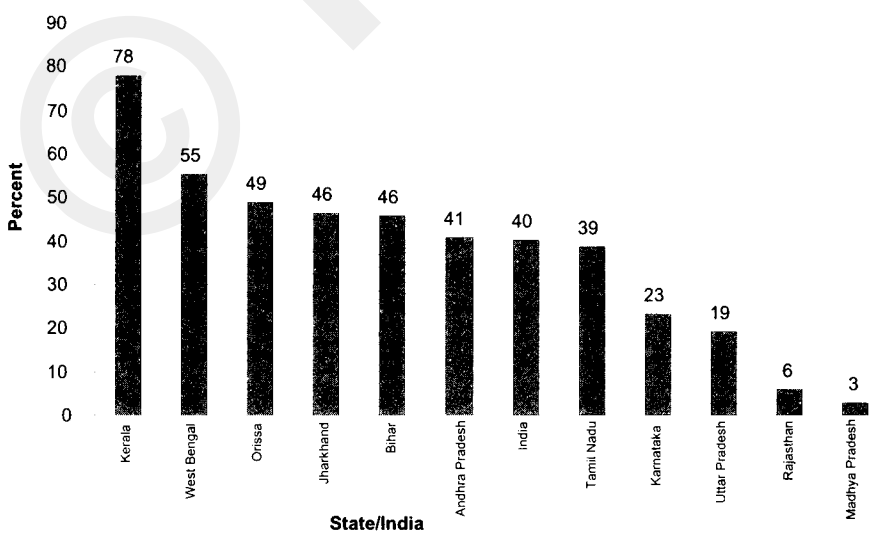


TABLE 2(a)
Percentage Unemployed Among Youth by
Monthly Per Capita Consumption Expenditure in India, 2004

Quintile of MPCE	Total	Rural	Urban
Poorest Q1	4.84	4.77	8.19
Second Q2	8.07	6.08	14.39
Middle Q3	9.50	7.85	17.44
Fourth Q4	11.80	8.51	17.31
RichestQ5	14.93	10.34	19.13
Total	8.61	6.95	13.93

Source: Authors' Estimate using NSS 60 (10th) data.

The differentials in unemployment among youth by background characteristics are shown in (Table 2b). The level of unemployment among youth in general educational level is 1.5 per cent among illiterate, 6.2 per cent among below middle, 16.2 per cent among secondary, 24.3 per cent among higher secondary, 34.5 per cent among diploma or certificate course, and 43.1 per cent among graduate and above. This indicates that unemployment level among educated youth is highest. There may be some possible reasons: that those who are better educated their aspirations are for high profiled job and they also preferred better-off; which they are getting, may not fulfil their desire that may be the cause of higher unemployment rate in educated youth. Also the earlier studies cited that the possible reasons for higher unemployed among educated youth are hard to get job appropriate to their skills (Chandrasekhar, Ghosh and Roychowdhury, 2006).

Further, the unemployment level among educated females is higher than that of males. The differentials in unemployment by place of residence showed that unemployment is significantly higher among urban youth as compared to the rural youth. The explanation for positive association between unemployment and the level of education may be that the young people with some education do not want to engage in low-productivity, low-income work in informal sector. They want non-manual work, preferably in the organized sector. The very fact that they have some education also means that their families have some capacity to support them (Ghose, 1999). The differentials in unemployment by marital status showed that unemployment rate is 11.3 per cent among the never married as compared to 3.1 per cent among the currently married. The possible reasons for higher unemployed in the never married youth are, those who are married they have family burden and they have to earn money to sustain their family and, on the other hand, the never married youth are less likely to prefer to stay in workforce due to less family pressure. The differentials in unemployment by social groups such as caste and religion are given. It is found that the unemployment rate is 4.3 per cent among schedule tribes (ST), 8.9 per cent among schedule caste (SC), 7.3 per cent among other backward class (OBC) and 12.3 per cent among other caste groups. The differentials by caste and place of residence showed that it is highest in urban areas among all caste groups. Similarly, the differentials in unemployment by religion group showed that the unemployment is 8.5 per cent among Hindus, 8 per cent among Muslims, 16.6 per cent among Christians, 13.4 per cent among

Sikhs, 1.55 per cent among Jains, 7.04 per cent among Buddhishts, and 1.83 per cent among others.

TABLE 2(b)

Percentage of Unemployed Among Youth by Background Characteristics in India, 2004

	Total			Rural			Urban		
	Person	*Male*	*Female*	*Person*	*Male*	*Female*	*Person*	*Male*	*Female*
Type of Education	**General Education**								
Not literate	1.45	1.77	0.99	1.01	1.24	0.21	1.51	1.87	1.05
Up to below Middle	6.21	6.39	5.38	9.16	9.01	10.38	5.25	5.44	4.49
Secondary	16.24	14.28	25.44	19.67	16.40	40.70	14.83	13.34	21.05
Higher Secondary	24.30	20.80	37.21	26.62	21.88	42.42	23.01	20.23	33.93
Diploma/ Certificate	34.46	32.69	42.76	25.13	25.43	23.04	44.03	41.08	54.16
Graduate & above	43.13	37.69	53.96	42.09	37.35	49.80	44.33	38.02	60.54
Marital Status									
Never Married	11.26	10.38	15.63	15.36	13.53	26.04	9.59	9.06	12.10
Currently Married	3.10	2.60	3.80	7.50	4.58	16.68	2.41	2.19	2.70
Social Groups									
ST	4.34	5.84	2.11	15.09	13.59	17.86	3.70	5.34	1.31
SC	8.91	9.14	8.11	15.49	15.60	14.84	7.33	7.41	7.09
OBC	7.26	7.19	7.48	11.39	9.79	19.48	6.08	6.33	5.41
Others	12.26	10.40	20.15	15.51	12.51	31.99	10.30	9.03	15.01
Religion									
Hindus	8.47	8.52	8.34	15.29	13.34	24.24	6.63	7.03	5.61
Muslims	8.04	7.14	13.72	8.74	7.68	18.10	7.58	6.75	11.86
Christians	16.60	13.70	20.75	22.58	19.79	28.22	14.56	11.24	18.84
Sikhs	13.39	10.16	49.69	10.01	7.64	61.09	14.43	10.98	48.03
Jains	1.55	0.31	7.03	1.80	0.37	7.41	0.00	0.00	0.00
Buddhists	7.04	10.29	1.28	15.77	15.95	13.44	2.67	4.98	0.4
Others	1.83	1.58	2.43	6.58	5.80	8.85	1.55	1.32	2.1
Total	8.61	8.41	9.22	13.93	12.05	23.62	6.95	7.11	6.52

Source: Authors' Estimate using NSS 60 (10^{th}) data.
SC: Scheduled Castes, ST: Scheduled Tribes, OBC: Other Backward Castes

Spatial Pattern of Unemployment in India

The level of educational and economic development varies largely across the states of India. Accordingly, the level of unemployment is examined among the major states of India, constituting more than 90 per cent of India's population. It is observed from (Table 3) that one-third of youth (31.68 per cent) are unemployed in Kerala; also it is the highest among the major states, followed by Orissa (17.05 per cent), Punjab (14.88 per cent) and West Bengal (14.74 per cent). It is found that the lowest level of unemployment among youth is in the states of Madhya Pradesh (2.84 per cent) and Rajasthan (4.06 per cent). The differentials in unemployment by sex and state showed that it is higher for females as compared to males in most of the states of India. It is found that out of the ten females, six (58.81 per cent) are unemployed in Kerala and it is four (39.04 per cent) in Punjab (not shown in Table).

TABLE 3
Percentage of Unemployed Among Youth by Place of Residence in Major States of India 2004

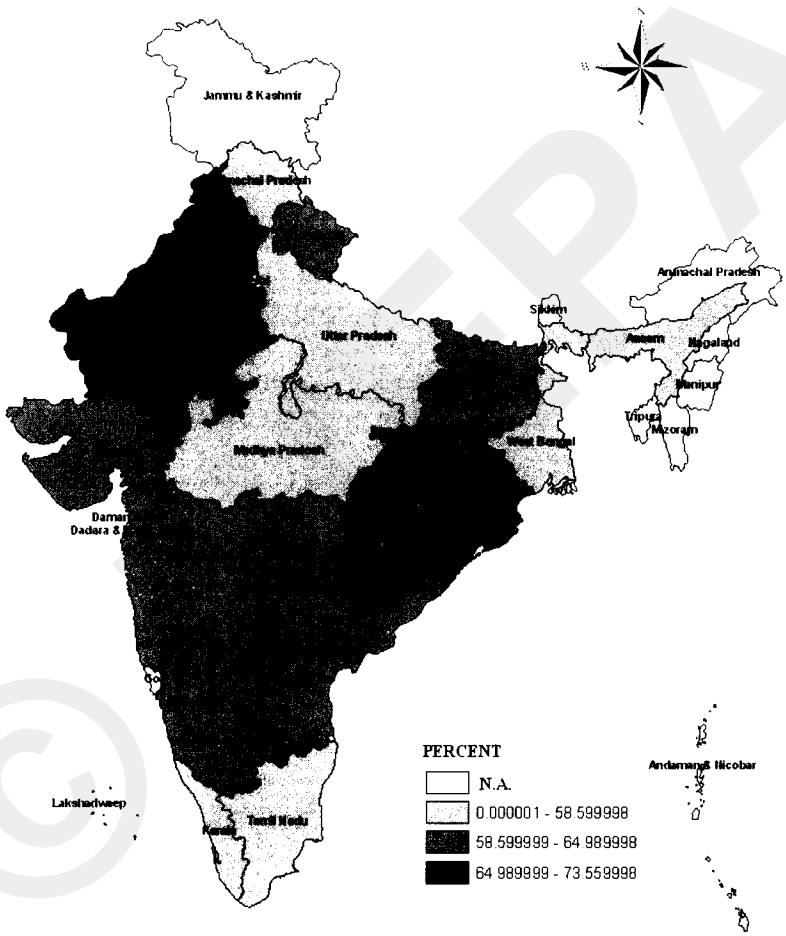
Rank	State/India	Unemployment Rate Among Youth			Youth Unemployed as Percentage of Total Unemployed		
		Total	*Rural*	*Urban*	*Total*	*Rural*	*Urban*
1	Kerala	31.68	34.02	23.15	49.89	52.34	39.87
2	Orissa	17.05	16.65	21.15	68.74	73.02	46.19
3	Punjab	14.88	16.16	12.5	73.36	74.11	71.61
4	West Bengal	14.74	10.93	26.28	58.19	62.19	55.45
5	Himachal Pradesh	14.09	13.3	22.8	57.75	58.29	54.51
6	Assam	13.71	13.45	17.93	56.71	60.29	32.64
7	Haryana	13.65	10.13	25.72	73.53	85.68	61.68
8	Jharkhand	12.08	9.64	31.15	63.71	78.12	43.91
9	Uttaranchal	11.3	11.4	10.81	64.27	72.45	40.44
10	Maharashtra	9.39	5.93	15.24	64.99	79.17	57.87
11	Bihar	9.03	7.63	23.28	63.15	65.64	56.06
	INDIA	**8.61**	**6.95**	**13.93**	**61.25**	**64.63**	**56.42**
12	Tamil Nadu	8.43	6.38	13.61	58.6	57.81	58.95
13	Andhra Pradesh	5.8	3.06	15.64	64.77	65.94	63.97
14	Chhattisgarh	5.28	3.4	18.15	69.15	75.09	62.77
15	Karnataka	5.23	4.08	8.62	61.62	63.9	58.69
16	Gujarat	5.17	2.28	10.64	62.58	55.59	65.95
17	Uttar Pradesh	4.25	3.34	7.00	58.46	65.96	50.14
18	Rajasthan	4.06	3.17	7.99	67.36	65.94	70.00
19	Madhya Pradesh	2.84	1.68	7.97	55.77	64.69	49.39

The differentials in unemployment by place of residence showed that it is higher in urban areas in all the states as compared to rural areas. The possible explanation for that is the highest literacy level in urban area as compared to the rural; also large numbers of youth in rural area are getting opportunity in the agricultural sector. But in gender differential of unemployment rate across the states due to increasing trend of literacy level in women and

cultural and traditional practices cause women secede from work force. The state variation of youth unemployment rate is clearly shown in the Map 1.

MAP 1

Per cent of Unemployed among Youth from Total Adult Unemployed in Major States of India



Unemployment Among Youth in India and Major States

To understand the relative position of youth unemployed among all adult unemployed, the youth unemployed as percentage of adult unemployed is computed for major states of India (Table 3). It is found that in India out of every ten youth, six (61 per cent) are unemployed in the year of 2004, but it was five youth (45 per cent) in every ten in the year of 1998. This indicates the increasing economic insecurity among young people in recent years. It also indicates that youth are more prone to be actively seeking work and not finding it. Similar finding was observed in earlier studies (Chandrasekhar, Ghosh and

Roychowdhury, 2006). They were of the view that the possibility of missing of window of opportunity, provided by a large young population. Unemployment rate in the eleven states is higher than the national figure. Among the states of India, youth unemployed as percentage of adult unemployed is the highest in Haryana (73.53 per cent) followed by Punjab, Chhattisgarh and Orissa. One of the possible explanations is the rising educational level in these states. Table 4 reveals the level of unemployment among youth from adult unemployment by background characteristics. It found highest level of youth unemployed from adult in female, Schedule Tribe, Other religion and up to primary level of general education. And the state variation of youth unemployment rate from adult is clearly shown in the Map 2.

MAP 2

Per cent of Unemployed among Youth in Major States of India

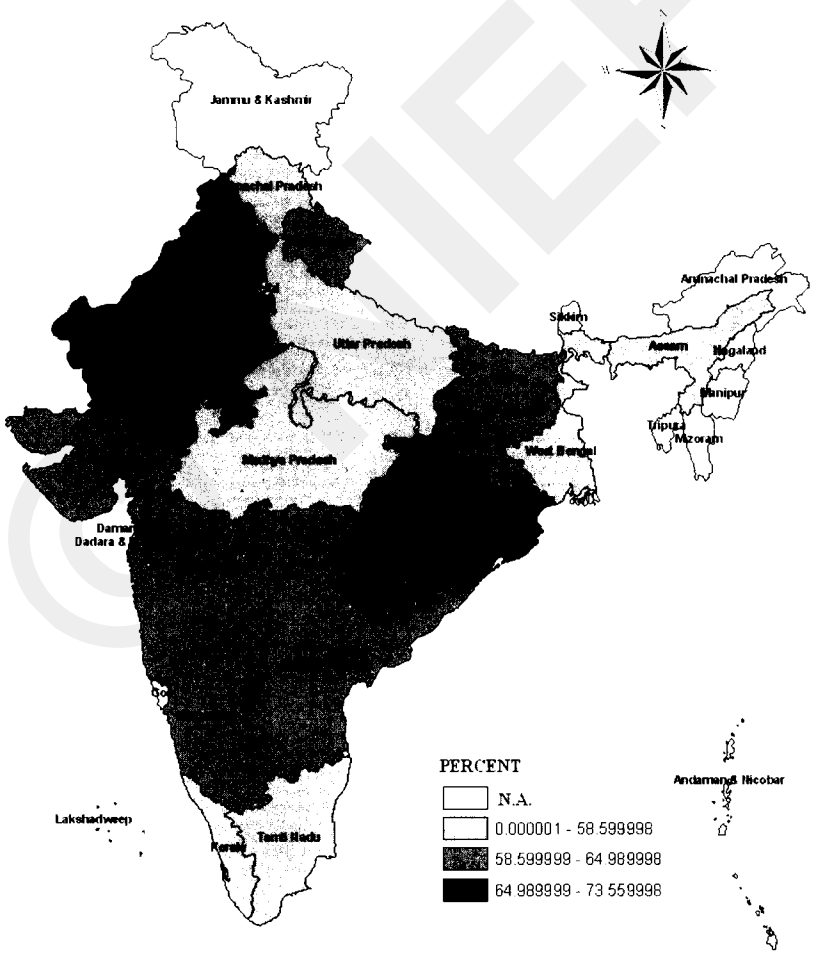


TABLE 4
Percentage of Youth Unemployed from Adult Unemployed by Sex, Place of Residence, Social Groups and General Education in India 2004

Category	Rural	Urban	Total
Male	66.77	58.42	63.34
Female	59.09	51.76	55.89
Total	64.63	56.42	61.25
Caste			
Scheduled Castes	72.27	57.86	68.96
Scheduled Tribes	66.42	67.77	66.87
Other Backward Castes	63.70	57.42	61.36
Others	62.89	52.12	57.26
Religion			
Hindus	65.42	55.64	61.28
Muslims	65.73	66.56	66.09
Christians	47.32	42.06	45.36
Others	69.52	63.12	67.58
Education			
Illiterate	52.63	47.60	52.16
Upto secondary	70.66	63.08	67.69
Diploma/certif.	62.79	48.35	56.56
Graduate and above	48.87	45.06	46.79

Source: Authors' Estimate using NSS 60 (10th) data.

Estimated Unemployed Among Youth from Total Unemployment in India and States

Using the per cent distribution of unemployment and the projected population of NCP (National Commission on Population), the estimated unemployed among adult and young is given in (Table 5). The estimated unemployed among young people are about 7.5 million in the country based on principal usual status. The estimated young unemployed by states showed that it is about 0.845 million in Maharashtra, followed by West Bengal having about 0.843 million and so on.

TABLE 5
Estimated Unemployed Between Working Age and Youth in India and States Based on Principal Usual Status, 2004

State/India	Population in Working Age (15-64) in (000)	Percentage in Labour Force	Estimated Labour Force (000)	Percentage Un-employed in Labour force	Total Un-employed (000)	Youth Un-employed as % of Adult Un-employed	Estimated Youth Un-employed (000)
India	665759	59.11	393530	3.14	12357	61.25	7569
Himachal Pradesh	4076	69.06	2815	4.21	119	57.75	68
Punjab	16348	47.17	7711	4.98	384	73.36	282
Uttaranchal	5404	63.06	3408	3.54	121	64.27	78
Haryana	13775	47.93	6602	4.22	279	73.53	205
Rajasthan	34656	60.33	20908	1.48	309	67.36	208
Uttar Pradesh	99910	51.52	51473	1.71	880	58.46	515
Bihar	49344	51.09	25210	2.94	741	63.15	468
Assam	17056	53.43	9113	5.27	480	56.71	272
West Bengal	53651	51.91	27850	5.2	1448	58.19	843
Jharkhand	16822	57.43	9661	4.21	407	63.71	259
Orissa	24127	55.75	13451	5.55	747	68.74	513
Chhattisgarh	13200	77.33	10208	1.76	180	69.15	124
Madhya Pradesh	37628	66.38	24977	1.23	307	55.77	171
Gujarat	34194	61.42	21002	2.03	426	62.58	267
Maharashtra	64928	65.23	42353	3.07	1300	64.99	845
Andhra Pradesh	51420	70.22	36107	2.14	773	64.77	500
Karnataka	35731	65.4	23368	1.9	444	61.62	274
Kerala	21896	53.74	11767	11.41	1343	49.89	670
Tamil Nadu	43612	70.42	30712	2.9	891	58.6	522

Source: Authors' Estimate using NSS 60 (10th) data.

For statistical significance of the differentials in unemployment a multivariate analysis is used. In multivariate, a logistic regression is used. The dependent variable is those who were unemployed (1) against working (0). The predictor variables are sex, place of residence, age group (15-24), marital status, educational level, MPCE, caste and religion. The odds ratio of the independent variable is shown in (Table 6). It may be seen that the odd of being unemployed for female is 1.45 as compared to male. In other words, the odd of female being unemployed is 45 per cent higher than the male and it is significant and it clearly shows that the females are more likely to be unemployed as compared to males. Similarly, the odds are higher in the urban area, higher educated group, richest quintile, and ever married group. They are statistically significant as well. The differences are also found in other categories. The differentials are statistically significant.

TABLE 6
Odds Ratio from Multivariate-Logistic Regression Analysis

Variables	Characteristics	Odds Ratio
Sex	Male®	1
	Female	1.45**
Place of residence	Rural(R)	1
	Urban	1.30**
Age	Age (15-19)R	1
	Age (20-24)	0.69**
Marital status	Never married(R)	1
	Currently married	0.33**
Caste	Schedule Tribe(R)	1
	Schedule Caste	1.04**
	OBC	1.26**
	Others	1.42**
MPCE	MPCE (poorest quintile)(R)	1
	Second Poorest quintile	1.49**
	Middle quintile	1.49**
	Fourth quintile	1.29**
	Richest quintile	3.84**
General education	Illiterate/Up to below middle(R)	1
	Secondary	3.84**
	Higher secondary	6.57**
	Diploma/certificate course	9.26**
	Graduate and above	15.43**
Religion	Hindu(R)	1
	Muslim	1.06**
	Christian	1.72**
	Sikh	1.12**
	Jain	0.04**
	Buddhist	0.55**
	Others	0.28**

Note: Dependent variable unemployment
Source: Authors' Estimate using NSS 60 (10th) data.
** P<0.05 (R) reference category

Conclusion

In conclusion, the result of study reveals that young unemployed constitutes about 61 per cent of total unemployed in the country. The level of unemployment is highest (8.69 per cent) in the age group 20-24 years. It is higher in urban areas and among females. The differential by caste showed that it is colossal among other caste groups; also the differential by religion found that it is higher in Christians as compared to other religion groups; similarly it is found highest in never married group as compared to ever married group. The differential in unemployment by educational level shows positive association of educational

level and unemployment. Also the broad objective of this paper was to understand the levels and differentials of unemployment as well as relative distribution of young unemployed in India and states using the NSS data. The results of the study suggest that unemployment among youth is higher in better demographic profile state like Kerala as well as low economic status state like Orissa. So if the economy does not generate adequate employment of a sufficiently attractive nature, the demographics could deliver not a dividend but anarchy. If the Indian economy boom by demographic dividend, then government should adopt right policy like change in the education pattern such as enormous investment on technical education rather than the general education, ravage the regional disparities across the country and create favourable policy according to the state environment.

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Appendix

TABLE A-1
Per cent Distribution of Labour Force Among Youth in India, 2004

Type of Labour Force	Total			Urban			Rural		
	Person	*Male*	*Female*	*Person*	*Male*	*Female*	*Person*	*Male*	*Female*
Own account worker (self employed)	12.32	13.85	7.64	13.57	14.13	10.69	11.93	13.75	7.07
Employer	0.12	0.15	0.01	0.39	0.45	0.08	0.03	0.05	0.00
Worked as helper in household (unpaid family labour)	31.35	29.75	36.27	17.62	18.10	15.13	35.65	33.94	40.24
Worked as regular salaried/ wage employee	13.93	15.30	9.70	34.90	35.57	31.45	7.36	8.00	5.63
Public works/any others type of work	33.67	32.53	37.15	19.59	19.69	19.03	38.08	37.15	40.55
Unemployed	8.61	8.41	9.22	13.93	12.05	23.62	6.95	7.11	6.52
Total	100	100	100	100	100	100	100	100	100

Source: Authors' Estimate using NSS 60 (10th) data.

TABLE A-2
Per cent Distrbution of Youth by Educational Level (General & Technical) in India, 2004

Type of Education	Total			Urban			Rural		
	Person	*Male*	*Female*	*Person*	*Male*	*Female*	*Person*	*Male*	*Female*
General Education									
Not literate	21.20	13.69	29.42	9.94	7.78	12.56	25.59	16.15	35.55
Below Middle	49.97	54.69	44.81	45.45	48.51	41.75	51.74	57.26	45.92
Secondary	15.29	17.08	13.33	19.25	19.53	18.91	13.74	16.06	11.30
Higher Secondary	9.49	10.33	8.57	16.68	16.19	17.28	6.68	7.89	5.40
Diploma /certificate co.	0.39	0.54	0.23	0.75	0.99	0.46	0.24	0.34	0.14
Graduate and above	3.66	3.68	3.65	7.92	7.00	9.03	2.00	2.30	1.69
Total	100	100	100	100	100	100	100	100	100
Technical Education									
No technical education	97.58	97.08	98.13	94.91	94.17	95.81	98.63	98.30	98.98
Technical degree in agriculture/ engineering	0.22	0.26	0.17	0.44	0.55	0.31	0.13	0.14	0.12
Diploma /certificate in agriculture	0.05	0.09	0.02	0.04	0.08	0.00	0.06	0.09	0.02
Engineering/ technology	0.96	1.44	0.43	2.20	2.97	1.28	0.47	0.81	0.12
Medicine	0.06	0.05	0.07	0.11	0.10	0.12	0.04	0.04	0.04
Crafts	0.1	0.06	0.14	0.16	0.07	0.26	0.08	0.06	0.10
Others	1.03	1.02	1.04	2.14	2.07	2.22	0.59	0.58	0.61
Total	100	100	100	100	100	100	100	100	100

Source: Authors' Estimate using NSS 60 (10th) data.

Table A-3
Employment Status Among Youth by Education Level

Type of Education/ Work Status	Self employed	employer	Unpaid family labour	Unpaid family labour	Casual labour	Self employed	employer	Unpaid family labour	Unpaid family labour	Casual labour	Self employed	Employer	Unpaid family labour	Unpaid family labour	Casual labour
Total															
Illiterate	21.62	26.86	25.68	11.89	37.14	20.60	25.04	17.50	10.44	29.74	27.31	94.80	46.27	18.90	57.02
Upto below Middle	55.51	39.77	57.32	54.90	55.26	56.15	40.69	62.65	59.10	61.32	51.94	5.20	43.92	34.58	38.99
Secondary	13.17	20.09	10.53	14.10	6.00	13.34	20.63	11.87	14.96	7.04	12.21	0.00	7.15	9.94	3.19
Hr. Secondary	5.74	8.87	4.51	8.88	1.32	5.80	9.11	5.38	8.10	1.54	5.38	0.00	2.29	12.65	0.73
Diploma/Certificate	0.47	0.00	0.23	1.48	0.06	0.53	0.00	0.30	1.39	0.09	0.15	0.00	0.07	1.94	0.00
Graduate & above	3.50	4.41	1.73	8.74	0.22	3.58	4.53	2.29	6.00	0.28	3.01	0.00	0.30	21.99	0.07
Rural															
Illiterate	24.57	0.00	27.32	16.20	38.89	23.25	0.00	18.26	13.65	31.21	31.46	0.00	47.80	25.93	57.76
Upto below Middle	54.48	23.02	57.26	50.87	53.70	54.94	23.02	63.64	55.35	59.94	52.12	0.00	42.82	33.77	38.38
Secondary	12.79	41.39	9.93	15.27	5.88	12.92	41.39	11.26	16.36	7.00	12.12	0.00	6.93	11.11	3.14
Hr. Secondary	5.26	24.84	4.03	10.00	1.23	5.71	24.84	4.84	9.12	1.47	2.93	0.00	2.19	13.36	0.65
Diploma/certificate	0.36	0.00	0.15	1.01	0.07	0.40	0.00	0.18	0.84	0.10	0.19	0.00	0.07	1.66	0.00
Graduate & above	2.53	10.75	1.31	6.65	0.22	2.79	10.75	1.82	4.67	0.28	1.19	0.00	0.18	14.18	0.07
Urban															
Illiterate	13.35	34.15	15.08	8.99	26.26	13.45	32.07	13.55	8.44	22.06	12.71	94.80	24.52	12.21	48.61
Upto below Middle	58.38	44.31	57.77	57.61	64.96	59.42	45.65	57.50	61.44	68.53	51.30	5.20	59.47	35.36	45.96
Secondary	14.23	14.31	14.38	13.32	6.70	14.48	14.80	15.05	14.09	7.25	12.52	0.00	10.26	8.82	3.76
Hr. Secondary	7.08	4.54	7.60	8.13	1.86	6.05	4.69	8.22	7.47	1.90	14.04	0.00	3.74	11.97	1.66
Diploma/certificate	0.76	0.00	0.78	1.80	0.00	0.87	0.00	0.91	1.73	0.00	0.00	0.00	0.00	2.21	0.00
Graduate & above	6.20	2.69	4.39	10.15	0.22	5.72	2.78	4.77	6.83	0.26	9.43	0.00	2.00	29.43	0.00
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Authors' Estimate Using NSS 60 (10th)Data.

Table A-4

Number of Youth by Rural-Urban Residence and Gender According to the Decennial Census Data 1961-2001

Census Year/Sex	Number in the Age Group (Millions)									Youth as Per cent of Total Population		
	Age-Group 15-19			Age-Group 20-24			Age-Group 15-24					
	Rural	*Urban*	*All Areas*	*Rural*	*Urban*	*All Areas*	*Rural*	*Urban*	*All Areas*	*Rural*	*Urban*	*All Areas*
1961												
Males	14.69	3.91	18.60	13.95	4.25	18.20	28.64	8.16	36.80	15.60	19.10	16.30
Females	14.08	3.20	7.28	15.62	3.52	19.14	29.70	6.72	36.42	16.80	18.60	17.10
All	28.77	7.11	35.58	29.57	7.76	37.33	58.34	14.88	73.22	16.20	18.90	16.70
1971												
Males	19.26	5.96	25.22	5.84	5.73	21.57	35.10	11.69	46.79	15.60	19.90	16.50
Females	17.26	4.98	22.24	16.80	4.73	21.53	34.06	9.71	43.77	15.90	19.30	16.60
All	36.52	10.95	47.47	32.64	10.46	43.10	69.16	21.41	90.57	15.80	19.60	16.50
1981												
Males	24.84	9.09	34.93	21.03	8.80	29.83	46.87	17.89	64.76	17.40	21.00	18.30
Females	23.13	7.91	31.04	21.61	7.57	29.18	44.74	15.48	60.22	17.50	20.70	18.20
All	48.97	17.00	65.97	42.64	16.37	59.01	91.61	33.37	124.98	17.40	20.90	18.20
1991												
Males	30.48	11.75	42.23	26.26	11.26	37.52	56.74	23.01	79.75	17.70	20.20	18.30
Females	26.54	10.27	36.81	26.76	10.20	36.96	53.30	20.47	73.77	17.70	20.10	18.30
All	57.02	22.02	79.04	53.02	21.46	74.48	110.04	43.48	153.52	17.70	20.20	18.30
2001												
Males	37.75	16.19	53.94	31.13	15.19	46.32	68.88	31.39	100.26	18.05	20.85	18.84
Females	32.31	13.96	46.28	30.27	13.17	43.44	62.58	27.13	89.72	17.34	20.02	18.07
All	70.06	30.15	100.22	61.40	28.37	89.76	131.46	58.52	189.98	17.71	20.45	18.47

Source: Authors' Estimate Using Census of India 1961, 1971, 1981, 1991 and 2001'B' Series Socio-Economic age tables

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Education, Training and Earnings

– Evidence from Manufacturing Sector in Bangalore City

Subhashini Muthukrishnan*

Abstract

The primary aim of this paper was to apply the familiar human capital theoretical prescriptions to empirics. Using firm level micro data of 300 employees from six private sector firms in three different industries namely ready-made garments, pharmaceuticals and the auto-components industries in Bangalore city, the study examined the relationship between different human capital variables especially firm level training to earnings. The results established the anticipated positive and significant relationship that exists between human capital variables such as age, education, experience, and earnings across industries. The level of education and experience gained at work are highly significant factors in determining the level of earnings. Technical and professional education gives higher return than general education and this can explain the current rush for such education. Gender difference in earnings across industry and categories is established in the study. The differences in earnings of employees by categories clearly indicate that category of employees can be taken as a proxy to measure skill. The training undergone in the previous firm or with other agencies shows that it has positive effect on the current earnings of workers. The highest return in terms of earnings is for firm-based prior training. The earnings of those who have undergone short duration training gives higher earnings for all industry categories. Long duration training is essentially for skill formation and hence earning effect can be captured only over time. Thus, in this paper it was found that irrespective of gender and industry, the human capital model and its predictions are true in all cases with regard to earnings, age, experience, education and training profile.

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Introduction

In the standard human capital model, human capital refers to general and specific skills, which may be gained through education, on-the-job training, experience, or other formal or informal source. Individuals view the accumulation of human capital as an investment decision. They give up some proportion of their current earnings during periods of education and training to earn higher earnings later in life, reflecting higher levels of human capital and productivity. This issue of investment in human capital and its returns is examined in this paper using empirical evidence from manufacturing sector in Bangalore city, India. The paper is presented in three sections. The first section deals with literature review and methodology while the second section presents the empirical findings and the third section presents critical analysis and conclusions based on the findings of the study.

A Brief Review of Literature

The human capital theory hypothesises that workers with more experience are paid more than the less experienced ones because the former are considered to be more productive. Studies directly testing the validity of this hypothesis are rare, primarily because productivity measures are difficult to obtain (Maranto and Rodgers, 1984). Therefore, the emerging wage profile, after experience is accounted for, is assumed to proxy individual productivity profiles. Becker (1962) and Mincer (1962) provide explanation that links investment in education and training to workers' wages. Understanding this wage effect of training is vital, as this influences an individual's choice to invest in human capital. Mincer in his classic study, Schooling, Experience and Earnings extended the analysis from his earlier work, especially Mincer (1958) and showed that "the inclusion in the earnings function of even crude measures of 'post school investments' in addition to schooling lends a great deal of scope to the analysis of income distribution." He coined the term "the human capital earnings function" for this expanded relationship (Mincer, 1974, pp.2).

From this theoretical background, we provide a brief overview of the empirical literature concerning the effects of education and training on earnings. Wage is considered a proxy for increased labour productivity and skills. Studies of Psacharopoulos (1973, 1994), Tilak (1990), Madheswaran (1996), Krueger and Lindhal (2001), and OECD (2004) considered education as an important form of investment in human capital and analyzed the effect of years of education on earnings. Grade obtained in the last qualifying examination too contributed to earnings differential in India (Prasad: 1981), (Madheswaran: 1996).

Ashenfelter (1997), Barron et al (1989), Veum (1995) Tan and Acevedo (2003), OECD (2004) and Gerfin (2004) recognised that training, particularly employer financed past training, is positively related to wage growth. Lynch (1992) found that on-the-job training raises wages with the current employers but not of the future employers. Kuckulenz and Zwick (2003) established that the effect of training on earnings differs among different groups of training participants and employers. High-skilled employees profit more from training than low-skilled workers. These studies are supported by several others like Duncan and Hoffman (1979), Lillard and Tan (1986), Barron, Black and Lowenstein (1989), Booth (1991), Lynch (1991), Bartel (1995), Veum (1995), Blundell et al (1996), Ashenfelter(1997), Loewenstein and Spletzer (1997), Dearden et al (2000), Dougherty (2000), Smith (2001), Tan and Acevedo (2003), Gerfin (2004), Frazis et al (2005), among

others. Barret (2001), Parent (1999), and Kuckulenz and Garloff (2003) focused on the nature of training and its effect on earnings and found that training positively affected earnings.

The existing evidence suggests that the return to training is positive and significant for the trained. At the individual level, the primary effect of training is on increased productivity of the trained worker. The type of training received and the characteristics of the person receiving it have substantial effects on the relationship between wages and training. Wage effect is treated as a measure of gains accruing to individuals from training. Since it is difficult to measure individual productivity, the best proxy for productivity used in all studies is the worker's wages (Gerfin, 2004).

However, to our knowledge no empirical studies have been conducted to study this wage effect of training in India (Bangalore) where the present study was carried out. Moreover, studies are not industry specific and most of the earlier studies have used firm panel data or longitudinal data and have not used a sample of workers from firms belonging to different industries to make a comparative study. Such firm based studies on the effect of education and training on earnings are yet to take root in India and this study is thus a forerunner. There is thus a good scope to study employee education level and receipt of firm level training and its effect on earnings in industries, especially in Bangalore city. A brief description of education and firm level training scenario in India is presented below.

Education and Training: Indian Scenario

In this section we attempt to present the findings of the NSS Surveys on vocational and technical education followed by a snapshot of the firm level training in India. According to the Employment and Unemployment Situation in India, 61st round of NSS (2004-05), the distribution of population aged 15+ by education level shows that 5.5 per cent males and 2.4 per cent females had graduate level education in 1993-94 which increased to 6.7 per cent for males and 3.3 per cent for females in 1999-2000. Data for 2004-05 reveals that it had further increased to 7.3 per cent for males and 4.0 per cent for females. The levels of illiterates have also come down during the same period. 34.5 per cent males, 62 per cent females were illiterate during 1993-94 which had decreased to 30.8 per cent and 56.4 per cent respectively during 1999-2000 which had further decreased to 26.4 per cent and 50.4 per cent during 2004-05. This shows that the nation has made investments in education.

According to the same data source, the percentage distribution of persons of age 15+ years and above by level of attainment of technical education during 2004-05 at the all-India level shows that only 2 .2 per cent had technical degrees, diplomas or certificates in this age group. The distribution of persons by level of attainment of technical education also reveals that among those who had technical education, about 14 per cent had degree in technical education of graduate level or above and the remaining had some certificate or diploma in technical education. It was 59 per cent for below graduate level and 27 per cent for graduate and above level. Percentage with graduate level technical education was 27.3 per cent for males and 23.1 per cent for females.

The NSS 61st round also has data of persons with any type of formal skill training into the category of vocational training. The distribution of persons of age 15-29 years by status of vocational training received/being received, separately for each sex and sector at the all-India level, showed that in the age group 15-29 years, 2.4 per cent (1.7 per cent males and

0.9 per cent females) received formal vocational training. 3.9 per cent received vocational training from hereditary sources (5 per cent males and 2.8 per cent females), other sources totaled to 3.8 per cent (males 4.4 and 3.1 females). 87.8 per cent of the persons in the age group 15-19 did not receive vocational training. Thus, there is a need for increasing investment in vocational education.

The relationship between educational level and earnings in India 2004-05 is shown in Table 1.This relationship is expressed in average daily wage/salaried earnings of the regular wage/salaried persons of age 15-59 years for each educational category at all-India level. It clearly shows that with an increase in educational level, the average earnings increase, which clearly is in line with the human capital theory.

TABLE 1
Average Earnings Per Day of Regular Salaried Wage/Salaried Employees (Age Group 15+ by Different Educational Levels (in ₹))

Education level	Rural			Urban		
	Male	*Female*	*Persons*	*Male*	*Female*	*Persons*
Not literate	72.47	35.74	60.42	98.79	48.70	77.34
Literate & upto primary	98.59	47.75	91.23	111.44	64.79	105.16
Secondary and Higher	158.04	100.19	148.39	182.58	150.41	178.29
Diploma/Certificate	214.38	200.40	211.13	274.87	237.02	267.11
Graduation and above	270.02	172.70	253.19	366.76	269.17	344.14
All	144.93	85.53	133.81	203.28	153.19	193.73

Source: Employment and Unemployment Situation in India 2004-05, NSS 61st Round, GOI.

However, evidence of firm level training and its various dimensions is not available in national statistics. No micro level study on employee characteristics and firm provided training is available in India. Data is available only from the "India: Investment Climate and Manufacturing survey" conducted by The World Bank and the Confederation of Indian Industry (CII) World Bank (2004) which is the first of its kind survey and gives some insights into the area of firm level training in India. Data reveals that not more than 17 per cent of manufacturing establishments in India provide in-service formal training and there is an industry wise variation in the provision of in-service training in India. The highest percentage of firm level training to employees is provided by the software industry (33 per cent), followed by the pharmaceutical (30 per cent) and sugar industry (29 per cent). The industries that provide less than average level of training include leather products (6 per cent), garments (8 per cent), food processing (17 per cent) Tan and Savchenko (2005). Thus, investment in firm level training in India is inadequate to meet the challenges of the rapid industrialization and globalization. The data source and methodology for this paper is presented below.

Data Source

This study is both exploratory and descriptive in nature. To conduct the study, the case study approach was used and a unique research design was developed to compare employees' human capital endowments and labour market experiences in three

manufacturing industries. Samples were taken from three different industries namely the ready-made garment industry, pharmaceutical industry and auto component industry, all located in Bangalore city, India .The ready-made garments industry is labour intensive. The pharmaceutical industry deploys people with high level of education and we designate this industry designated as knowledge intensive industry. The auto component industry employs a technically qualified workforce and this was designated as technology intensive industry. All the six firms were in the private sector. Three were multinationals while three were Indian private companies. The three industries were represented by two firms each totaling six firms. From each of these two firms, fifty samples were taken totaling to hundred from each industry and a scheduled interview was conducted. Thus, the total size of the sample was 300. Stratified random sampling method was employed in an attempt to get representation from three categories of the workforce namely, managers, supervisors and workers. There were more workers, lesser number of supervisors and a few managers to constitute the 300 respondents. This choice of industries enabled us to make inter-industry comparisons regarding training, skill formation and earnings. Years of schooling, technical qualification, short and long duration training, category of workforce, nature of industry, gender and age have been taken as determinants of current earnings. A description of the relationship among variables is presented in the following section.

Empirical Results

In this section of the paper, a description of the relationship among variables that emerged from the empirical work is presented below.

Educational Institution and Earnings

The nature of the educational institutions in terms of government owned or privately owned appears to bear some relationship with the level of education obtained. Empirical findings suggest that in the readymade industry 65 per cent of the respondents had their education in government institutions while it was 55 per cent in pharmaceutical industry and 51 per cent of respondents from the technology intensive industry had their education in government run institutions. It is interesting to note that 50 per cent of the respondents had government education until the pre-university in the readymade industry while it was 26 per cent and 43 per cent in the pharmaceutical and technology intensive industry respectively. At higher level of education, in all the three industries respondents had completed their education from private run educational institutions. 18 per cent of respondents from readymade industry studied in private institutions while 10 per cent had their higher education in Government run institutions. Similarly in the pharmaceutical industry, 31 per cent were from private institutions while 28 per cent were from Government institutions. In the technology industry, only 8 per cent completed their education in Government run institutions while 30 per cent were from private educational institutions. This clearly indicates that private sector appears to be sought after for pursuing higher education. Of the total sample 56.1 per cent male had high+pre-university level of education while 43.4 per cent had degree+post-graduate level of education. For the female respondents 6.9 per cent had middle school level of education, 56.9 per cent had high+pre-university while 36.1 per cent had degree+post-graduate level of education. Examining the

earnings of respondents from the institution's perspective it is seen that in the income groups between ₹2500 and ₹12500, respondents who had their education from government run institutions received higher salary than their counterparts who had their education from private institutions. In the income bracket ₹12501-15000 to ₹30000 and above, respondents who had their education from private institutions earned higher than those from government run institutions.

Age, Level and Nature of Education and Earnings

Another important factor that determines earnings is age. The relationship between age and earnings tends to be positively related to the level of skills (Becker, 1962). The empirical results of the study establish this phenomenon lucidly. The age group 39-43 gets the highest average level of earnings in all the three industries. After reaching the peak, the earnings curve gradually declines. However, the earnings rise once again for the oldest age group 54-58, indicating that their skills are in demand and they fetch good returns during the latter part of their career, too. This indicates that the recouping of certain kinds of investment in human capital happens later in life. This finding is an important contribution of the study.

Examining the relationship between level of education and earnings, it is understood that investment in formal education is an important determinant for receiving firm provided training later in one's work life. Persons who are more educated are generally more trained, hence, more skilled and earn higher incomes. Respondents with degree and post-graduate level of education receive the highest earnings in all the three industries .This is followed by high school and pre-university level of education. The respondents with middle school level of education earn the least in the sample. This pattern is true for all the three industries, though there are inter-industry variations. In the labour and technology intensive industry, respondents with a degree level education receive the highest average salary of ₹13941 and ₹23137 respectively. In the technology intensive industry, individuals with post graduation degree receive the highest mean salary of ₹32500.

Data relating to education was categorized into general and technical education. The earnings vary for general and technical education in the sample. In the study, engineering, pharmacy, and management, i.e., other than general education are taken as technical education. Technical education is related to higher earnings and therefore, indicative of work specific skills. Technical education has the advantage of putting candidates to work easily and further the pace and nature of firm specific training. Respondents with technical education and with management qualification earn the highest in the labour intensive and knowledge intensive industry. In the technology industry, engineers get the maximum earnings. However in the knowledge industry, those with no technical qualification get better earnings than those with ITI/diploma. For the total sample management education gets highest earnings followed by engineering, respondents with no technical education earn the lowest in all three industries. This result can explain the reason for the rush to invest in technical education in India.

Gender Wage Gap in Earnings

Employers do not employ women in certain occupations resulting in relegating women into those industries which are essentially women dominated like the readymade garments

industry. The total number of women respondents in the readymade garments industry sample was 49 while it was 12 in the pharmaceutical industry and only 5 in the auto component industry. Female respondents reach peak salary with 11-15 years of work experience but there are only seven women in this experience group indicating that the exit of women from the labour market had already begun. The maximum number of women 'crowd' the 0-5-work experience group. In all work experience groups, women's earnings are lower than those of men. Examining gender wage gap from 'experience' perspective, the highest wage difference of ₹14095.29 is in the 16-20 years experience group. The maximum number of women 'crowd' the 0-5 work experience group and thus gets ₹5065.65 per month. In all work experience groups, women's earnings are lower than that of men. The least mean difference in earnings is in the work experience group 11-15 years, amounting to ₹530.91.

Men and women with the same levels of education receive different wages. Male respondents with degree and above level of education earn on an average ₹9906 more than their female counterparts with the same level of education. This gap decreases with lower levels of education at ₹7278.19 at the high school and pre university level and ₹1594.50 at middle school level education. Only 2 per cent women respondents have a technical qualification in engineering while 12.7 per cent male have the same qualification. Male respondents earn ₹6721.53 more than females with the same qualification. So is the case with ITI/diploma qualification where men earn ₹2636.34 more than women. Male respondents with a technical education in pharmacy earn ₹ 6960.13 more than their female counterparts.

Category of Workers and Earnings

When the category of workers and their earnings is taken into account it is observed that male managers get ₹9862 more than female managers. The number of women managers is only 8 while there are 85 male managers. For the supervisory category the wage difference is ₹506. There are 15 female supervisors while there are 42 males. The wage difference is ₹5735 for the worker category. This clearly shows that even when women take on similar responsibilities like men, they do not get the same wages. Higher earnings for higher category of employees clearly indicate higher level of skills and hence, category of employees can be treated as a proxy for skills.

Level of Education, Training and Earnings

The level of education of respondents has a bearing on the duration of training obtained. Short duration training is less than 6 working days at a stretch while long duration training is more than a week and the period could extend depending upon the firm providing training. The relation between the level of education and training undergone shows those 35 per cent respondents with high school and Pre-University received short duration training while 21 per cent with similar education level did not receive short duration training. 33 per cent with degree and postgraduate degree level of education received short duration training while only 8 per cent with the same level of education did not receive training, clearly indicating that respondents with higher level of education fetch more short duration training. In the case of long duration training, 21.7 per cent respondents with high

school and pre-university level of education receive training while only 15.3 per cent with degree and post-graduate level of education receive long duration training. This indicates that with higher level of education the amount of long duration training undergone is lesser.

Prior Training and Current Earnings

The other important finding relating to prior training and current earnings is about 'who provided the prior training'. Information regarding the training received before joining their present employment, its nature, its duration and who paid for the training was obtained from the respondents. Receipt of training prior to present employment has positive effect on current earnings. Respondents who received training before joining the present firm received on an average ₹3065.59 more than those who did not undergo any training earlier, for the total sample. The effect of previous training is different for different industries as well. In the labour intensive industry, respondents who underwent training in the earlier firm received ₹4395.51 more, while it is ₹7330.25 in the knowledge intensive industry and only ₹2245.99 in the technology intensive industry. This indicates that training required for this industry is firm specific and hence, the skills acquired earlier are not of much value in the present firm. Thus, training undergone in the previous firm has a positive effect on current earnings as some skill development has taken place in the earlier firm.

Examining the path of skill formation, which is different for different industry, it was seen that in the readymade garments industry, the largest number had undergone prior training from informal sources such as from the village tailor or from members of their family. Such respondents received an average earning of ₹ 9950, while those who had prior training in firms earned an average current salary of ₹8823.52. However, this is not the case with respondents from the pharmaceutical and auto component industry. Respondents from the pharmaceutical industry who underwent firm based training received ₹13120 more than other informal sources of training while those who underwent government training receive ₹10580 more than those who underwent firm based training. In the technology based industry 55 per cent had undergone training in their previous firm but the difference between this training and those who did not undergo training is only ₹2375 indicating that prior firm based training and its resultant skills are not of much relevance to the present firm. Of the total sample, 30.3 per cent did not receive any previous training before joining the present firm. Of those who received some training before joining the present firm, government provided training to only 2.3 per cent respondents, previous firm provided training to 58.3 per cent, 7 per cent received training from village and family members before joining the present job.

When it came to 'who paid for prior training' and its effect on current earnings it was found that the maximum current earnings was obtained when the firm had made the payment for old training. This indicates that firms are major investors in training and that skill formation, resulting in increased earnings of those workers trained by the firm. The current earnings is higher for the labour industry by ₹1352 when individuals have paid for their previous training while this is not the case of the knowledge and technology industry. Current earnings are ₹10169 lower in the technology industry for those who paid for their training themselves. In all the three industries when the government paid for the previous training, it was found that the current earnings are lower than when firms paid for the training. Moreover, the number of respondents who received government training is also

small at only 2.3 per cent. Individuals do not invest in their training in the technology intensive industry is seen from the sample, which indicates that the skills required by this industry are firm specific. For the total sample too, those who received training paid for by the firm earn the highest current income when compared to other categories.

Regarding the short duration training, it was seen that those in lower income slabs of ₹2500 to ₹5000 who underwent short duration training earned more than those who did not undergo training and this was true of all income slabs. Regarding long duration training, 30.3 per cent had not undergone any long duration training while 69.6 per cent of the total sample had undergone long duration training which ranged from 7 days and above to as long as the firm felt the need to provide training. It did not reveal any difference in earnings as all salary groups had under gone some long duration training or the other.

The next issue related to prior training and current earnings is about the nature of training received prior to joining the present firm. Respondents who received a combination of on-the-job training with technical and managerial training received the highest average current earnings at ₹26913.33 followed by on-the-job training which is ₹14207.28 for the total sample. Firms' role in skill formation by providing on-the-job training is well established and the outcome of the sample is no different. The earnings difference is lowest for the trainee category which is ₹8030 per month and highest for those who received a combination of on-the-job training with technical and managerial training at ₹24534.62. Another important finding is that skills acquired in an informal manner like those from members of family or from self-employment has lower value in firms, as employers are not in a position to assess the value of such skills. It is as good as not having undergone any training at all.

Thus, from the above analysis, it can be concluded that those who had undergone some form of previous formal training received higher current earnings than those who did not attend any previous training. Difference in earnings was seen in terms of who conducted, who paid for the previous training and the nature of training received before joining the present firm. In the following part, we now examine the relationship between current training and earnings. From this analysis a presentation on the relationship between training received in their present firm and its impact on current earning is explained in the following section.

Current Training as Determinant of Earnings

Training received during the last two years was categorised into short duration and long duration current training. The relationship between education level and short and long duration training and its effect on current earnings reveals the importance in receiving training. Respondents with higher level of education who underwent short duration training earn more than those with high school level of education and have undergone some short duration training. This means that the benefit of undergoing short duration training in terms of current earnings is more for those respondents who have already invested in their education.

Those who had undergone short duration training from the labour intensive industry received ₹6269.10 more than those who did not undergo short duration training in the same industry. In the knowledge intensive industry, an employee who underwent short duration training received ₹10848.06 more than those who did not undergo such training. In the

technology industry, however, the results show that those who did not undergo short duration training received higher earnings than those who had undergone short duration training. This is because managers who had not undergone short duration training but were receiving high current salary were part of the sample. The relationship between short duration training and current earnings by industries shows that for the total sample, those who received short duration training received on an average ₹7897.94 more than those who did not undergo any short duration training. It can be concluded that undergoing short duration training positively affects the earnings of employees.

Examining the relationship between long duration training and earnings it was found that those who underwent long duration training received lesser current earnings than those who did not undergo such training. Long duration training is for learning work related skills. Fresh recruits and workers receive more of this kind of training. During the training period, young recruits receive lower wages compared to their senior age cohorts. The mean earnings of those who underwent long duration training is lesser by ₹2543.3 for respondents from the readymade garments industry, by ₹5003.36 for pharmaceutical industry and by ₹840.62 for technology industry. From this analysis it is clear that long duration training offered at the beginning of one's career gives lower wages in all the three industries, indicating that fresh recruits bear a part of the training costs.

The long-term effect of long duration earnings can be captured if their earnings are tracked over a period of time. Since such information was not available it was not possible to estimate the long-term wage effect of long duration training.

The effect of training on the earnings of male and female are different. 66.7 per cent female did not undergo any short duration training. On an average, females who underwent short duration training get ₹6923.46 more than women who did not undergo such training. The difference between earnings of male, who underwent short duration training and those who did not is ₹4623.34. The difference between the earnings of males and females who underwent short duration training was ₹5066.05. This indicates that undergoing short duration training has not reduced the earning difference between male and female respondents.

Male respondents who underwent long duration training received on an average ₹1731.09 less than those males who did not undergo training. Average earnings of females are lesser by ₹5244.49 for those females who did not undergo training. An important finding is that more women 44 (61.1 per cent) underwent long duration training than men 70 (30.7 per cent). More women thus receive lower wages by way of training wages to cover the cost of training provided by the firm. Men are trainees in the technical and pharmaceutical industry while women are trainees in the ready-made garment factories where labour turnover is high and wages are relatively lower.

Earnings differ by the categories of workers, as each category requires different levels of skills to perform their job Employees in all the three categories namely managers, supervisors and workers who have undergone short duration training appear to have benefited from increased earnings. Managers who received short duration training received ₹3520 more than those managers who did not undergo short duration training. The earnings of the supervisor category are lower than that of the managers. The worker category respondents possess lower level of skills, which is reflected in lower earnings. The workers who had received short duration training received ₹9727.84 while those workers who did not undergo such training received only ₹3133.67, the difference being ₹5594.17. Thus there

is a positive effect of undergoing short duration training on all categories of employees but the benefit is more for the supervisors and worker category.

The effect of undergoing long duration training, on the other hand, is different for all the three categories. Those who did not undergo long duration training received more earnings than those who underwent such training. This outcome is explained by the fact that this kind of training is given more to the recent recruits, who even otherwise earn lower wages than other categories. This indicates that each category of employees possesses different sets of skills and get different levels of earnings implying that category of employees can be used as a proxy for skills.

Another analysis in terms of the category of employees and long duration training reveals that in the labour intensive industry, there were 9 trainees in the less than ₹2500 salary slab who underwent long duration training. 31 per cent workers and 7 per cent supervisors in the earning category less than ₹2500 and 2501-5000 underwent long duration training. 7 per cent middle level managers too underwent such training and they too are in the lower income slabs. Only 2 per cent of the senior management category underwent on-the-job training and were in the ₹22501-27000 salary slab. Both were production incharge and they were undergoing training in new production and ergonomic practices. In this industry most of the skill formation takes place through long duration training.

In the technology intensive industry, workers, middle level managers, supervisors have undergone long duration training irrespective of the income slabs. This shows that long duration training was important to meet changing production needs and any category of employees may undergo such long duration training depending on the emerging needs. A senior manager too underwent long duration training abroad. However, it is different in the knowledge intensive industry. 83 per cent of the respondents did not undergo any long duration training. No senior manager underwent any long duration training. Only 5 per cent middle level managers underwent long duration training and they were in the ₹27001-30000 and greater than 30001 income slab. Only 3 (17.6 per cent workers underwent such training and they were in the less than ₹7500 income slab. Only one trainee respondent and 2 apprentices (11.8 per cent) were undergoing long duration training and they were in the starting salary slabs. Inquiries revealed that such long duration training was not considered necessary in this industry. Their requirement of training is to help build and maintain harmony in production processes involving people. From this empirical finding, it can be concluded that long duration is related more to the nature of the industry rather than to the earnings of the respondents.

Firms invest in training their employees as such industrial training is beneficial to the individual and to the firm. In the study the firm was the largest provider of training. Those who received training provided by the firm received the highest current earning in the total sample. The earnings of employees in the knowledge intensive industry are highest for those who received training conducted by firms. From the analysis, it is seen that earnings increase with increase in the level of human capital indicated by educational levels and training. Importantly, differences in earnings are seen by gender and by industry.

TABLE 2
Sources of Skill Formation

Training	Labour	Knowledge	Technology	Total
Entry Level Training	23(23.0)	16(16.0)	15(15.0)	54(18.0)
Training by Superiors	9(9.0)	10(10.0)	24(24.0)	43(14.3)
On-the-job training	81(81.0)	83(83.0)	52(52.0)	216(72.0)
External training	11(11.0)	13(13.0)	13(13.0)	37(12.3)
Short training	27(27.0)	14(14.0)	19(19.0)	60(20.00
Attending seminar/workshops	1(1.0)	4(4.0)	9(9.0)	14(4.7)
E- learning	1(1.0)	4(4.0)	9(9.0)	14(4.7)

Source: Collected from field work.
Note: Figures in parenthesis indicate percentages.

Conclusion

The primary aim of this paper was to apply the familiar human capital theoretical prescriptions to empirics. The results established the anticipated positive and significant relationship that exists between human capital variables such as age, education, experience, and earnings across industries. The level, nature of education and experience gained at work are highly significant factors in determining the level of earnings for the respondents from the three industries. The study also established that differences in earnings of employees by categories clearly indicates that category of employees can be taken as a proxy to measure skill. The nature, duration and who provided training affects on the current earnings of workers. The highest return in terms of earnings is for firm based prior training Thus, in this paper we found that irrespective of gender and industry, the human capital model and its predictions are true in all cases with regard to earnings age, experience, education and training profile.

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Performance Appraisal of University Faculty in India – Present Status and a Futuristic Model

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Abstract

Performance appraisal in service sector and particularly in educational service sector has been emerging as one of the critical components of human resources. Though the academia is well privileged in almost every aspect after the 6th Pay Commission recommendations yet it has elevated the professional expectations from the faculty. Without much demands and additional expectations on performance, the pay commission has taken their due care. However, in the changed scenario the performance appraisal of university teachers has become a key issue to honour and respect the social expectations and the utility of performance evaluation as such should not underestimated. As per the present study, 'Self-Appraisal only without comments of HOD' has emerged as the most common faculty evaluation practice in the university system. However, in futuristic terms, 'Classroom Environment' has emerged as the dominant factor of consideration while assessing the university faculty. The other factors of university faculty evaluation that emerged from the study are the 'Research Contribution', 'Extension Activities', 'Self-Review and Development' and 'Third Party Ratings'.

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Introduction

Employees are the key Assets of an organisation and organisations have to take many decisions about acquirement and development of their employees. When an organisation sets standards or objectives all employees work to achieve the common aims and objectives of the organisation. To harmonize with the expectations of both a system of continuous evaluation and monitoring is obligatory. We cannot avoid the importance of performance evaluation in our routine life also. An ordinary person does evaluation of others' performance even in his customary life. When parents have to select school in which their child will go, they also do inquisition about the performance of the different schools by taking feedback from others or by analyzing the results of passed out students. Even when we select any educational institution, its performance vis-à-vis the performance of the faculty working therein helps in our choice. The first thing to be noted about performance evaluations is that they exist: there is no alternative.

In organizations, all employees are constantly appraised by everyone with whom they come into contact and even by those with whom they have no contact. This appraisal may consist of nothing but rumours, ignorant opinions, hearsay evidence, misinformation, prejudice, and even outright character assassination, or of friends shielding one another in order to build up their monarchy and escalate their ego. Yet such appraisals may be real and have exuberance. The point here is that appraisal relies on there being something to appraise. This can be done by adopting a fair system of performance evaluation. The system of evaluation and monitoring is popularly known as 'Performance Evaluation'. Performance evaluation encompasses all formal procedures used to evaluate personalities, contributions and potentials of group members in a working organisation. The appraisal system need not be mere a tool of evaluation but should also serve as a tool of infusing growth oriented behavior in the individual employee. People differ in their abilities and attitudes which is natural due to obvious reasons. Many a time these differences cannot be eliminated even by giving the same basic training and education to them. There will be some differences in the quality and quantity of work done by different employees even on the same job. Therefore, it is necessary for management to know these differences so that the employees having better abilities may be rewarded and the wrong placements of employee may be rectified through transfers or other organisational mechanisms. In today's world of competition, there is an increasing pressure on organisations to perform. This pressure is essentially for survival of one segment which is constantly under pressure to perform, i.e., the employee.

With competent employee becoming expensive and rare, every employee is continuously being assessed for the value he is adding to the organisation. Performance evaluation, therefore, has become an important instrument for assessing and determining the worth of each employee in relation to the organisation. When we glance through the literature, Indian education system was different and far from the present one. In the present system we are trying to impart western education through Indian cultural ethos which is diagonally opposite to each other in content, methodology and the philosophy. Evaluation, assessment and appreciation are the hallmarks of the western learning process whereas admiration, emulation and imitation are the typical Indian methods of gaining knowledge. In comparative terms we find that the western philosophy concentrates on 'performance evaluation' whereas the Indian philosophy concentrates on 'performance management'. India is known for its educational systems; in ancient times *Gurukul* system

was prominent and of world fame. But now, India is an open economy, as a result, Indian educational organisations have to compete for survival not only at national level but at the global platform of higher education too. The system of 'performance management' in education sector ought to concentrate on three main objectives, i.e., the remedial objective developmental objective and innovative objectives. The remedial objectives aim at improving those performances which are not upto the required standards. However the extent to which such objectives are encouraged depends upon the number and nature of the instructional needs. The developmental objectives involve reinforcement of strong points that the teacher has displayed and inculcation of new skills and knowledge to cope with the future challenges. The innovative objectives encourage discovering the ways of dealing with new tasks or to better ways of completing the existing work.

But when we peep into the existing system we find that traditionally in Indian higher education, there is automatic seniority based promotion from lecturer to senior lecturer to reader or even to professor. Performance management system based upon the three objectives as mentioned above can be helpful to give recognition to those who are genuine and conscientious and to identify unscrupulous members of the faculty. The emphasis on the evaluation of faculty is not new, but has been given additional impetus by the globalization of education and educational institution have to change in tune with changing times, if they want to survive and flourish. The faculty performance evaluation system is a process through which the behaviour and achievements of an individual teacher for a fixed period are measured and evaluated. Every institute needs to ensure right number and right kind of people, at the right time, capable of effectively completing the task that helps the organisation to achieve its educational and non-educational objectives. A current inventory of the talent can be made only through a valid evaluation process to differentiate between good performer and average performer and also to retain superior talent in the organisation. Performance evaluation and management of performance have recently attracted much attention in the universities across the globe. A performance evaluation criterion has to be, on the one hand, relevant, reliable and justly measurable; and on the other hand, tightly connected to the objectives of the organisation and its subdivisions. The evaluation systems must be based on skills and competence, behavioural traits and outputs from the job. Such criteria are relatively difficult to find and in consequence the best results are achieved through a balanced combination of distinct criteria.

The days of traditional performance appraisal system, i.e., self-appraisal and appraisal by head of the department, head of the institution seem to have lost their relevance and there is need to turn towards a holistic approach of 360-degree appraisals and feedback system having inbuilt mechanism of performance management. The new system need to include not only the traditional system of appraisal but also other dimensions, i.e., Class Teaching, Research Publications (research papers, popular articles, research books, textbooks, research reports etc.), students' supervision for research & allied academic activities, sponsored research and consultancy projects from different funding agencies like UGC/DST/DBT/AICTE/Industry etc., educational administration assignments, extension/ consultancy activities, organisation of educational/co-curricular activities like seminars/ conferences/training programmes etc., students' ratings, peers/colleagues rating, may form significant constituents of faculty appraisal reports. The information from these sources is bound to present a broader and more accurate perspective on the concerned faculty. The results of the study conducted by Punia and Siwatch (2008) suggest that no single system of

performance appraisal is preferred totally by the faculty and a new system of appraisal having specific weightage of various academic and allied actives seems to be the need of the hour. Hence Indian education system needs to re-plan the faculty performance appraisal system and fortunately the same has been endeavored by UGC, New Delhi by making Academic Performance Indicator (API) as a mandatory requirement in faculty selection and promotion matters to introduce Performance Based Appraisal System. It is pertinent to mention as on date the new guidelines of UGC, New Delhi are facing a lot of opposition and criticism from different corners of academia and its success in execution/implementation is yet to be tested.

Literature Review

From the literature survey the researchers found that there are numerous studies on faculty appraisal systems and practices in international contexts but very few studies could be found in Indian contexts and that too of very elementary nature. Landy, Farr and Jacobs (1982) revealed that the performance evaluation and compensation has a crucial role in reforming the functioning of educational system and productivity of academic staff, as well as the overall quality of higher education. The appraisal ratings may also provide the criterion in decision making to retain employees during layoffs, to measure the quality of training programmes, to measure equitable treatment of different groups of employees, to increase employees' pay, and to promote or terminate employees. The faculty members' motivation has become a very important resource to gain rapid changes in higher education in order to meet the transformation in the public demand. As quick changes increase the workload of academic staff drastically, it is important to implement specific motivation schemes and work out a united performance appraisal and fair compensation system.

Srivastav and Singh (1996) in their conceptual paper concluded that the trends towards accountability have focused attention on the evaluation of performance of the faculty. The basic purpose of evaluation is to provide the faculty members a measure of how well they are performing in their professional role, so that they can improve their performance. The evaluation activities directly or indirectly serve as a basis for decision making in the matter of transfer, promotion, salary administration and other rewards. If the process is handled improperly or casually, it may result into negative consequences of evaluation like lower morale, grade inflation, increased litigation, reduced momentum of college development, place the principal/administrator at receiving end of a long succession of grievances, deterioration in co-operation and collegiality and loss of institutional time and resources. Any effort to improve the performance of a teacher requires an effective feedback system and corrective action. No evaluation technique has yet been found which does not have serious shortcomings. As viewed by Mrinalini (2000) the present scenario of Indian education system is under wide range of criticism. The more popular critique about the system is its declining standards and lack of quality. The author asserted that this is the time when teachers working at university level and authorities concerned should rethink the existing practice in classroom and the appraisal mechanism for the same which require transparency and accountability in the system.

Towmev (1997) had revealed that even though the introduction of the appraisal system and the accountability aspect are considered appropriate, the type of appraisal is a much more sizzling issue. For example, universities resisted to the introduction of judgmental

appraisals initially proposed by the government and adopted developmental reviews more in line with their inherent needs. Simmons (2002) conducted a research and the in-depth interviews were conducted over a three-month period with parallel stakeholders, i.e., Heads of the organisations, appraisers, appraisees, personnel manager, and trade union representatives. For the data collection, 117 questionnaires were issued to academic staff within the two organisations, 90 questionnaires to staff at the university business school and 27 to staff in the college school of management. Academic staff was constituted as an "expert witness" group and their views were sought on performance appraisal in their institutes. The first result of the study was, notwithstanding the significant body of opinion critical of performance appraisal, the practice is not going to disappear. It was found interesting that those who put forward sharp criticisms of appraisal are less forthcoming as to how key decisions on performance would be made in its absence. Second, there were significant evidences that traditional forms of performance appraisal were less appropriate for knowledge based organisations which need to maximise the flexibility and innovation of professionals in order to compete effectively. Performance measures identified in the research study, as likely to be valid and accepted to academic staff, should be considered by those involved in appraisal system design and change in universities and colleges. Third, the study proposed the stakeholder synthesis approach as an effective way of developing robust and equitable performance management system that recognizes stakeholder interests while giving particular importance to the concerns of the knowledge based workers whose commitment is central to organisation success. Whereas Scott (1999) also came together with arguments that the "student as customer" view is often rejected because of its implicit reference to the marketing view that "the customer is always right". In order to be aware about customer interests, universities should monitor more closely their customers' expectations. Thus, awareness about these expectations is a comparison of the appraisal systems important even if the customer aspect is only one of several performance appraisal criteria. Whereas Houston and Rees (1999) described postgraduate students as having unpredictable roles that range from co-producer to consumer, they also analysed the complex process of developing a quality management system for postgraduate education which needs to incorporate appraisal aspects.

Younes (2003) in his conceptual paper has viewed that faculty evaluation programmes need re-examination to observe how they fit with institutional purposes of evaluation. The issue is a contentious one and it has been stated that faculty evaluation systems often have two contradictory purposes: to enhance faculty development efforts by assessing the strengths and weaknesses of individual instructors and to determine whether the employment of a faculty member should be continued or terminated. There is no doubt that faculty evaluation is a key element in improving the performance and effectiveness of academic institutions. If the appraisal system is developed and applied properly, it can contribute to the institution's mission in achieving excellence and a positive reputation to act as a benchmark for others. However, the intrinsic conflict in purpose and perceptions needs to be dealt with in a manner which can satisfy both objectives without an apparent bias. An assessment of evaluation practices is also necessary to determine the programme's effectiveness with regard to the promotion of faculty development and productivity. Ample and unbiased evaluation programmes can only be achieved when administrators involve faculty members in the process of determining the evaluation's purpose, its scope, as well as the sources of data, participants and the assessment of effectiveness. The backbone of any

evaluation must be its purpose. The purpose of evaluation dictates the questions asked, influences the sources of data utilised, the depth of analysis and the dissemination of findings. Professional development and the growth of faculty members need to be addressed adequately within the scope of evaluation. Continually developing and improving faculty plays an important role in the collective pursuit of institutional development and excellence.

In the study conducted by Szeto and Wright (2003), the researchers have tried to explore an ideal system of faculty evaluation. They have found that for the evaluation of scholarship or research, not surprisingly, the number of papers published in "quality" journals and the number of books (sole or senior author), were regarded as the most acceptable methodologies. When degree of satisfaction with the present system was measured, a different scenario emerged. Only 58.2 per cent of respondents indicated they were either "somewhat" or "very satisfied," leaving a substantial minority in the "dissatisfied" category. The merits of multi-rater appraisal have been debated extensively but the multiple measure concept, however, appeared to have gained widespread acceptance. The authors concurred with this view, but stressed that an element of flexibility needs to be added to the evaluation process to reduce disaffected minorities. However, the service aspect of the profession remained lopsided in the research. Traditionally avoided or seen as unproductive, institutional citizenship also should be measured and perhaps rewarded. The researchers have combined traditional and novel ideas, therefore, evaluation approach needs to accommodate either discipline-based or individual-based idiosyncrasies and further suggested strongly that no organisation can operate effectively when close to half of its people do not believe that their efforts are being measured fairly and effectively.

Ngware and Mwangi (2005) reported the findings on feedback mechanism and teaching effectiveness in Kenyan universities. It was clear from the research that faculty in the universities do not have standard tools for measuring teaching effectiveness or performance of faculty which can steer management in developing a comprehensive quality control policy. There was no clear university policy on the evaluation of teaching effectiveness, despite its importance in quality control. Student evaluation of teaching effectiveness (SETE) was found to be unreliable, although widely used where evaluation existed, without other evaluation support systems. Even where instruments were in use, only a small percentage of staff (21 per cent) was made aware of the results. The majority of the teaching staff do not benefit from these evaluations. This raises the question of the motive behind the administration of such tools. However, the few who had access to the results strongly agreed that they were useful in improving their personal professional development. Feedback from the evaluation process, though decisive in professional improvement, was not made available to the respondents., whereas the teaching evaluation is important in order to bring about an improvement in areas such as student achievement, and use of public funds or educational materials. The study findings provided critical information for management decision making to assist universities to translate the resources at their disposal into learning outcomes. Use of a variety of evaluation tools for instance self, peer rather than relying solely on SETE is necessary as it can provide comprehensive and usable information that may be effective in teaching. Universities should provide clear policy guidelines on quality control for faculties to develop multiple teaching effectiveness evaluation instruments.

Monyatsi (2006) conducted a study on Botswana secondary schools and found that 44.7 per cent of the respondents expressed the feeling that the appraisal process as carried out in

their institutions de-motivated the teachers, while 27.9 per cent felt it motivated them. It signifies that to some extent the appraisal process has the capacity to motivate teachers to improve their duties of facilitating students' learning. Some respondents in the semi-structured interview supported the view that the current system of teacher appraisal as carried out in Botswana secondary schools demoralizes teachers because it is not carried out properly. The teachers were of the opinion that it demoralizes them while others claim that as a result of the appraisal process they were able to get motivated. Whereas 44.5 per cent of the respondents agreed that the appraisal process improved their skills and knowledge in teaching while 37.6 per cent disagreed. As a result of acquiring new skills and knowledge, the teachers got motivated and thus improved their performance in teaching. Another 47.4 per cent of the respondents believed that the appraisal process improved their attitudes towards teaching while 32.5 per cent disagreed and 18.9 per cent had no opinion. It was also realized that the appraisal process was effective in influencing the behaviour of the teachers in the schools. For instance, 47.2 per cent of the respondents expressed the opinion that the appraisal process enhanced their working relations with colleagues compared to 31.7 per cent who disagreed, while 20.6 percent had no opinion. The same trend was shown when 46.2 per cent of the respondents indicated that the appraisal process enhanced the teachers' working relations with their superiors and 29.1 per cent disagreed.

Shahzad, et al. (2008) viewed that a number of researchers have established the relationship between human resource practices and employee performance but they mainly discussed it in the context of developed countries. In their study they have examined the relationship between three human resource practices like – compensation, promotion and performance evaluation and perceived employee performance among university teachers in Pakistan. They indicated that the results signify a positive relationship between compensation, promotion practices and employee perceived performance while performance evaluation practices were not significantly correlated with perceived employee performance. They suggested that Pakistani universities need to revise compensation practices and define clear career paths to enhance the performance of teachers. Through the study they proposed a number of implications and proposed that the weak correlation between performance evaluation practices and teachers' performance needs prompt attention. They supported that public sector universities need to change the typical confidential reporting system. The time period for evaluation should be reduced from one year to six months and results should be communicated to teachers so that they can improve their performance. The evaluation system should be devised in such a manner that it is linked with promotion and compensation so that teachers consider it important. As far compensation practices are concerned they have direct impact on teachers' performance. The authors argued that the step which currently taken by the Higher Education Commission in Pakistan includes attractive salary package for university teachers which is a very positive step to enhance teachers' performance. They also see promotion practices not only helpful for teachers' development in organizational hierarchy but also serve as mode for professional development. Since this study proves the relationship of promotion practices with teachers' performance, it is up to the government and the universities to devise career development programmes for faculty which should allow their career growth vis-à-vis there should be opportunities for the same.

Significance and Objectives of the Study

Performance evaluation and management of performance have recently attracted increased attention of academia in India particularly. When world has grown as a composite market, the educational institutes cannot keep themselves away from the competition and to compete with national and international educational facilitators Indian academic organisations have to make their system more transparent and objective. The diverse moves of University Grants Commission to inculcate quality and responsiveness in the higher education system have necessitated the introduction of new faculty appraisal system (Punia and Siwatch, 2009). In order to raise academic standards, the procedures used in evaluating faculty performance should be supported by the faculty. Who else can give best response and tell required changes than the people who are working in these institutes and these people are the only who can give feedback on present system of evaluation adopted by the institutes and about the required changes in the system. The faculty who are working in educational institutes have to face some changes according to the requirements and this study is an attempt to collect views on existing system of faculty performance evaluation in different institutions of higher education and also to suggest a workable model for the infusing transparency and objectivity in the system. The prime objectives of the study have been as under:

1 To examine the existing faculty appraisal practices in the university system vis-à-vis organizational evaluation of the same; and
2 To suggest an objective, incentive oriented and realistic model of faculty performance appraisal in the universities.

Methodological Framework

This study is based on primary data gathered through a well structured questionnaire divided in two parts. The first part was devoted to respondents' profile and sought information on various basic issues like respondents' personal, academic, experience and institutional profile. The information on the prevailing faculty appraisal practices was also collected through this part of the questionnaire. In the second part, the respondents were asked to respond on twelve components which have key roles in the performance management and career progression of the university faculty. These components were identified after a thorough literature review and also discussions with faculty members from different universities. The respondents were asked as to what should be share of different components in the proposed performance evaluation model and what percentage they want to attribute to each component of the model, and then the percentages assigned by the respondents to distinct components have been converted into ranking scale/ordinal scale. The questionnaire was administered on 1200 respondents of 24 Indian universities having different academic stream and employing faculty with different qualifications and at different designations. Out of 1200 distributed questionnaire only 572 questionnaires were received back and out of those questionnaires only 520 were found suitable for analysis and finally only 500 questionnaires were used for final data analysis. Though stratified random sampling techniques with adequate input of convenience sampling has been applied for selecting university faculty members yet while selecting the sample due care has been taken

to make it representative of all the major streams of studies. Out of the sample 129 were Professors, 204 Readers and 167 Lecturers working in different academic streams, i.e., Science (150), Social Science (239), Arts (111). The sample has been taken from central (109) and state (391) universities, residential (158) and affiliating (342) universities, and general (388) and special character (122) universities. In the sample, majority has been found of male faculty members, i.e., 355 and a vast majority of teachers have been found having Ph.D. degree, i.e., 412. The data gathered has been analysed and interpreted with the help of tabulation, mean, grand mean, percentage, factor analysis, correlations and other need based statistical techniques. Factor analysis was used to reduce the factors as well as for grouping purpose. Keeping in view the objective and available related studies for the present study, a descriptive-cum-exploratory research design has been taken up in the present study as a mix of these designs provides enough provision for protection against biasness, maximizes reliability, and provides opportunities for considering various facets of the research problem.

Results and Discussions

Existing Performance Evaluation Methods for University Faculty

With a view to propose a model for future reference, the examination and understanding of the existing performance evaluation methods for university faculty comes at the core. This part of study has been devoted for the same and results have been shown as per the Table 1. The existing appraisal system has been studied on the basis of three appraisal methods, i.e., 'Self Appraisal only without comments of HOD', 'Self appraisal with comments of HOD' and Any other method (which includes Evaluation by HOD only, Evaluation by Head of the Organisation only, Evaluation by HOD & Head of the Organisation, Joint evaluation by Students, HOD & Head of the organisation, Joint evaluation by Students, colleagues, HOD & Head of the organisation). The cross-examination presented in the Table has been done across the organisation category of the respondents.

TABLE 1
Organisational Evaluation of Existing Faculty Evaluation Methods

Organisation Category	System of Performance Appraisal						Total	
	1st		2nd		3rd			
	Count	*%*	*Count*	*%*	*Count*	*%*	*Number*	*%*
Affiliating University	156	31.2(46)	93	18.6(27)	93	18.6(27)	342	68.4(100)
Residential University	50	10(32)	74	14.8(47)	34	6.8(21)	158	31.6(100)
Central University	26	5.2(24)	39	7.8(36)	44	8.8(40)	109	21.8(100)
State University	180	36(46)	128	25.6(33)	83	16.6(21)	391	78.2(100)
General University	170	34(44)	117	23.4(30)	101	20.2(26)	388	77.6(100)
Tech./Special Character Uni.	36	7.2(32)	50	10(45)	26	5.2(23)	112	22.4(100)
Overall	**206**	**41**	**167**	**34**	**127**	**25**	**500**	**100**

Source: Primary Data (n=500)

Note: 1st = Self-Appraisal only without comments of HOD; 2nd = Self-appraisal with comments of HOD; 3rd = Any other (i.e. Evaluation by HOD only, Evaluation by Head of the Organisation only, Evaluation by HOD & Head of the Organisation, Joint evaluation by Students, HOD & Head of the Organisation, Joint evaluation by Students, Colleagues, HOD & Head of the organisation).

The organisational analysis of the existing appraisal methods as given in the Table 1 depicts that in all 206 respondents (41 per cent) respondents have viewed that the 1st system of appraisal is followed in their universities. 147 respondents (34 per cent) respondents have viewed that the 2nd system of appraisal is followed in their universities and rest 127 (25 per cent) respondents have revealed that their universities follow the 3rd system for evaluating the performance of its faculty. Majority of the affiliating universities have been found following the 1st system and the majority residential universities follow the 2nd system of faculty evaluation. 46 per cent of the respondents from State universities have admitted that their university follows the 2nd method of faculty evaluation. The third method has been found most popular and in practice in central universities as 40 per cent respondents have viewed the same. The 1st method has been found most common in general universities, 45 per cent respondents from technical/special character universities have given their views in favour 2nd system with regard to its usage in their respective universities. As a whole, the 1st system has emerged to be most common and wide in practice and the 'evaluation proforma' designed by the University Grants Commission, New Delhi is largely used for appraisal and evaluation faculty performance in different universities of the state.

Dimensions/Components of the Proposed Model

Based upon the literature review and also discussions with faculty members from different universities, the researchers identified twelve components which play key role in performance management and the career progression of the university faculty. These components may also be used in deciding their specific share/proportion in performance based payment practices (if implemented) and can also become part and parcel in the proposed model of faculty appraisal. The details of these components have been presented as per the Table 2.

TABLE 2
Components of Proposed Model

No.	Performance Pay/Career Progression/Model Performance Appraisal Proforma Components
1.	Class Teaching
2.	Research Publications (research papers, articles, research/text books, research reports etc.)
3.	Students' supervision for research & allied academic activities
4.	Sponsored research and consultancy projects from different funding agencies like UGC/DST/DBT/AICTE/Industry etc.
5.	Educational Administration assignments
6.	Extension/Consultancy activities
7.	Organization of educational/co-curricular activities like seminars/conferences etc.
8.	Rating by Head of the Institution
9.	Students' Ratings
10.	Peers/Colleagues rating
11.	HOD Rating
12.	Self Rating

It can be gauged from the Exhibit-1 that 'class teaching' has been mentioned as the first component as teaching is the primary and pious duty of a university teacher. Second

component has been mentioned as the 'research publications' which include research papers, popular articles, research books, text books and research reports as well. Since research is an important aspect of a university teacher and its documentation is equally important, universities are centres of learning and the attitude of the universities are largely manifested though the research contribution of the faculty. Research is carried out by the scholars and impetus and input for research comes from the supervisors. Therefore, student supervision for research and allied activities have been taken as a component which otherwise is not considered many a time. Research projects from different funding agencies not only attract money and add to the financial health of the host institution but also elevate the academic and research standing of the institution. What should be share of sponsored research and consultancy projects in the proposed model has also been asked from the respondents. Within the university system, a teacher has to perform many administrative duties in addition to the academic responsibilities and to what extent they should be counted for, has also been taken as a component. To make faculty evaluation a 360-degree philosophy driven event, in addition to 'self-rating', the ratings by head of the department, head of the institution, colleagues and also from the students need to be a part of proposed model. In fact any activity which a university teacher performs irrespective of the fact whether paid or honorary, needs to be included in proposed model and the same has been attempted by the researchers and also by the University Grants Commission, New Delhi in the 6th pay commission report. The views of the respondents on these twelve components have been analysed and the researchers put forth a model that can be used not only for evaluation but also for management of faculty performance.

Inter-Correlation Matrix of Proposed Model Dimensions

To ascertain validity and reliability of the proposed model it is essential that the components/dimensions must reveal some level of coherence and association. That is why an inter-correlation matrix of model components has been drawn and presented as per Table 2 which explains the inter-factor correlations and demonstrates that significant correlation has emerged between class teaching and other dimensions of the proposed model at both the levels of significance. Since the class teaching is the key factor in the professional life of a teacher and hence it constitutes prominent dimension in performance appraisal of academia.

It can be gauged from the Table 3 that 'class teaching' has been found negatively but significantly correlated with all the components of proposed model. It signifies that any assignment to a faculty member except the 'class teaching' is bound to adversely affect the faculty performance as a teacher. Though the relationships of 'research publications' have been found significantly and positively correlated with 'research supervision', and 'research and development projects', yet its relationships with other dimensions have exhibited significant negative correlation (except the extension/consultancy activities). Almost similar trend has been reveled in the relationship of 'research supervision' with other dimensions. Herein, 'research and development projects' and 'educational administration assignments' have been found positively correlated whereas its relationship with 'students' ratings', 'peers/colleagues ratings', 'head of departments' rating', and 'self-rating' has witnessed a negative correlation at .01 level.

TABLE 3
Inter-Correlation Matrix of Model Dimensions

Model Dimensions		CT	RP	RS	R&DP	EAA	E/CA	OEP	STR	P/CR	HODR	RHI	SR
CT	Pearson Correlation	1											
	Sig. (2-tailed)												
RP	Pearson Correlation	-.115**	1										
	Sig. (2-tailed)	.010											
RS	Pearson Correlation	-.293**	.121**	1									
	Sig. (2-tailed)	.000	.007										
R&DP	Pearson Correlation	-.394**	.094*	.139**	1								
	Sig. (2-tailed)	.000	.035	.002									
EAA	Pearson Correlation	-.381**	-.111*	.244**	.032	1							
	Sig. (2-tailed)	.000	.013	.000	.474								
E/CA	Pearson Correlation	-.401**	-.043	.081	.209**	.293**	1						
	Sig. (2-tailed)	.000	.337	.071	.000	.000							
OEP	Pearson Correlation	-.375**	-.231**	-.030	.016	.154**	.195**	1					
	Sig. (2-tailed)	.000	.000	.502	.714	.001	.000						
STR	Pearson Correlation	-.240**	-.280**	-.176**	.057	-.023	.032	.090*	1				
	Sig. (2-tailed)	.000	.000	.000	.205	.609	.469	.043					
P/CR	Pearson Correlation	-.385**	-.241**	-.128**	.003	.123**	.038	.205**	.217**	1			
	Sig. (2-tailed)	.000	.000	.004	.944	.006	.398	.000	.000				
HODR	Pearson Correlation	-.365**	-.261**	-.170**	-.078	.081	-.002	.097*	.243**	.457**	1		
	Sig. (2-tailed)	.000	.000	.000	.081	.069	.957	.031	.000	.000			
RHI	Pearson Correlation	-.397**	-.199**	-.075	.048	.072	.027	.020	.080	.399**	.508**	1	
	Sig. (2-tailed)	.000	.000	.093	.286	.108	.548	.661	.074	.000	.000		
SR	Pearson Correlation	-.360**	-.256**	-.152**	-.086	.016	.020	.217**	.013	.149**	.233**	.202**	1
	Sig. (2-tailed)	.000	.000	.001	.056	.719	.652	.000	.778	.001	.000	.000	

Note: CT—Class Teaching; RP—Research Publications; RS—Research Supervision; R&DP—Research & Development Projects; EAA—Educational Administration Assignments; E/CA—Extension/Consultancy Activities; OEP—Organisation of Educational Programmes; STR—Students' Ratings; P/CR—Peers/Colleagues Ratings; HODR—Head of Departments' Rating; RHI—Rating by head of the Institution; and SR—Self Rating.

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 3 further depicts that very interestingly, the 'research and development projects' undertaken by faculty have shown significant and positive correlation only with 'extension/ consultancy activities' and with rest of the dimensions no significant relationships have emerged. The 'educational administration assignments' performed by the faculty members have shown significant positive correlation only with 'extension/consultancy activities'; 'organisation of educational programmes' and 'peers/colleagues ratings'. The 'extension/ consultancy activities' performed by the faculty have been found positively correlated only with 'organisation of educational programmes'. 'Organisation of educational programmes' has been found positively correlated with 'students' ratings', 'peers/colleagues ratings', 'head of departments' rating', and 'self-rating' at one level or the other but it did not witness significant relationship with 'rating by head of the institution'. The 'students' ratings' have been found positively correlated with 'peers/colleagues ratings', and 'HOD rating' dimensions of proposed model but it did not reveal significant relationship with 'rating by head of the institution' and 'self-rating' dimensions. As a whole the dimensions of proposed model have been largely found correlated with each other and hence, justify the usage of factor analysis for further exploration.

Factor-Analytic Approach for Proposed Model of Faculty Performance Evaluation

Performance appraisal system needs to be very objective, transparent and helpful for the faculty as well as the management. Various performance appraisal methods that have been suggested by the experts and the organisations have adopted one or the other or a mixed form of the methods for performance appraisal. From the study results discussed above it is apparent that most of the universities have adopted self-appraisal method with comments of HOD or without comments of HOD. The faculty members of different universities have shown dissatisfaction or a very low per cent of respondents have revealed their satisfaction with the existing appraisal systems. Since the systems applicable at present do not fully satisfy the respondents, moreover there is always scope of improvement or betterment therefore, the respondents were asked to offer their suggestions for the proposed model. Keeping respondents' views in mind a model for 'faculty performance appraisal' in the universities has been proposed. It is pertinent to mention that the proposed model fulfils the condition of 360 degree appraisal and feedback system to a larger extent while considering the views of all the parties having interactions with the faculty.

The factor analysis technique has been used by the researchers in identifying significant and smaller numbers of factors as the respondents were asked to respond on twelve components for the proposed model of faculty performance evaluation. The twelve components relating to performance evaluation of faculty have been subjected to factor analysis. The Principal Component Analysis extraction method has been used to analyse the data with Varimax Rotation Method. Kaiser-Meyer-Olkin Measure of Sampling Adequacy test shows the value of .610 and has been found significant as shown in Table 4. The extracted communalities ranged from 0.478 to 0.800.

TABLE 4
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.610
Bartlett's Test of Sphericity	Approx. Chi-Square	728.458
	df	66
	Sig.	.000

For clarity of the factor definitions, factor loadings of more than 0.400 are considered as shown in Table 5. The factor analysis yielded 5 factors in all which explain 61.910 percent of total variance as explained in Table 6 which signifies that 61.91 percent of total variance is explained by information contained in the factor matrix. Tables 7 and 8 give an overview of component matrix and rotated component matrix wherein Principal Component Analysis extracts the five components and the rotation method of Varimax with Kaiser Normalization converged in 7 iterations. In all, the following five factors (factor names have been assigned by the researchers based upon their proper clubbing and association with each other) have been derived and description has been given in the ensuing section of the study.

Factor 1 - Third Party Rating
Factor 2 – Extension Activity
Factor 3 – Self Review & Development
Factor 4 – Class Room Environment
Factor 5 – Research Contribution

TABLE 5
Communalities

Component		Initial	Extraction
1	Class Teaching	1.000	.800
2	Research Publications	1.000	.551
3	Research Supervision	1.000	.577
4	Research & Development Projects	1.000	.766
5	Educational Administration Assignments	1.000	.715
6	Extension/Consultancy Activities	1.000	.478
7	Organisation of Educational Programmes	1.000	.602
8	Students' Ratings	1.000	.716
9	Peers/Colleagues Ratings	1.000	.418
10	Head of Departments' Rating	1.000	.573
11	Rating by Head of the Institution	1.000	.560
12	Self-Rating	1.000	.674

Extraction Method: Principal Component Analysis.

TABLE 6
Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	*% of Variance*	*Cumulative %*	*Total*	*% of Variance*	*Cumulative %*	*Total*	*% of Variance*	*Cumulative %*
1	2.301	19.177	19.177	2.301	19.177	19.177	1.726	14.386	14.386
2	1.641	13.671	32.848	1.641	13.671	32.848	1.495	12.456	26.842
3	1.303	10.861	43.709	1.303	10.861	43.709	1.469	12.241	39.084
4	1.142	9.518	53.227	1.142	9.518	53.227	1.391	11.592	50.676
5	1.042	8.683	61.910	1.042	8.683	61.910	1.348	11.234	61.910
6	.828	6.902	68.811						
7	.794	6.613	75.424						
8	.709	5.909	81.334						
9	.685	5.705	87.039						
10	.636	5.302	92.341						
11	.596	4.964	97.305						
12	.323	2.695	100.000						

Extraction Method: Principal Component Analysis.

TABLE 7
Component Matrix[a]

	Component				
1	-.697	-.437	-.185	.201	.220
2	-.464	.369	.394	-.074	-.197
3	-.009	.606	.344	.271	.134
4	.065	.571	.071	-.650	-.090
5	.371	.400	-.118	.560	.301
6	.317	.460	-.377	.153	.015
7	.499	.057	-.408	.154	-.398
8	.320	-.030	-.433	-.440	.482
9	.535	-.172	.189	-.191	.173
10	.523	-.304	.358	-.005	.279
11	.448	-.164	.562	.091	.094
12	.494	-.310	.035	.044	-.574

Extraction Method: Principal Component Analysis.
[a] 5 components extracted.

TABLE 8
Rotated Component Matrix[a]

No.	Component				
1	-.390	-.318	-.404	-.619	.022
2	-.199	-.096	-.293	.295	-.573
3	.080	.525	-.270	.227	-.413
4	-.088	-.023	-.085	.045	.865
5	.121	.825	.021	-.136	.039
6	-.171	.571	.224	.190	.191
7	-.073	.259	.708	.028	.165
8	.071	.057	-.104	.809	.205
9	.569	-.014	.114	.122	.259
10	.735	.005	.021	-.089	.156
11	.727	.035	.047	-.019	-.166
12	.273	-.174	.749	-.037	-.084

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
[a] Rotation converged in 7 iterations.

Deriving conclusions from the above description, the Table 9 has been derived. The table presents a composite of factor analysis results and the description of the five factors; and also the outcome extracted from the proposed percentage as attributed by the faculty members to each of the twelve components.

TABLE 9
Proposed Model for Faculty Performance Evaluation in University System

Factor	Evaluation Dimension	Proposed Component	Factor Loadings	Component Mean	Component Percentage	Factor Percentage
F1	Third Party Rating	9	.569	2.48	2	8
		10	.735	3.01	3	
		11	.727	2.99	3	
F2	Extension Activities	5	.825	4.79	5	19
		6	.571	4.85	5	
		3	.525	9.06	9	
F3	Self Review & Development	7	.708	5.66	6	11
		12	.749	5.23	5	
F4	Class Room Environment	1	.619	32.67	33	38
		8	.809	5.19	5	
F5	Research Contribution	2	.573	16.16	16	24
		4	.865	7.58	8	

Source: Primary Data (n=500)
Note: 1=Class Teaching, 2=Research Publications (research papers, popular articles, research books, text books, research reports etc.), 3=Students' supervision for research & allied academic activities, 4=Sponsored research and consultancy projects from different funding agencies like UGC/DST/ DBT/AICTE/Industry etc., 5=Educational Administration assignments, 6=Extension/ consultancy activities, 7=Organisation of educational/co-curricular activities like seminars/ conferences/training programmes etc., 8 = Students' Ratings, 9=Peers/Colleagues rating, 10=HOD Rating, 11=Rating by Head of the Institution, 12=Self Rating.

It has been mentioned earlier that the respondents were asked to attribute approximate percentages they would like to assign to each of the twelve components. That way the Table 8 can be understood better from both the perspectives independently and also cumulatively. When we gauge the Table on factor analysis basis we can view that the twelve components have been converted into five factors. Component mean is the mean score of the total percentages attributed by respondents to each component independently and component percentage is the rounded off percentage attributed, and the factor percentage is the sum total of all the components percentage within that factor. However, with regard to the assignment of total weightage, the mean of proposed percentage assigned by the faculty has been used while describing the results. As mentioned earlier in all, five factors have emerged and they can be used in evaluating faculty performance and also in deciding performance pay (if applicable in the concerned institute) and career progression of the faculty from one Grade Pay to next/one designation to next. The faculty evaluation on this basis will be objective and transparent by giving weightage to each and every contribution of faculty in their respective institutions and the pious profession of teaching.

We can visualize from Table 8 that out of the five factors, the first factor has emerged as Third Party Rating (Factor 1). The title of factor is self-explanatory that it is based upon the outcome of the others' views while evaluating a university teacher. This factor as proposed by the respondents should include Peers/Colleagues rating (2 per cent weightage), rating by HOD (3 per cent weightage), and Head of the Institution rating (3 per cent weightage) while evaluating the university faculty. Hence as per the proposed model, Third Party Ratings should count only upto the extent of 8 per cent of total evaluation score of faculty. Interestingly, very less weightage has been attributed by the faculty for this factor as compared to other factors. Though these are some of the components of faculty performance appraisal which have been used by very select Indian universities yet they need to be counted while evaluating the faculty performance.

Extension Activities (Factor 2) is the second leading factor and it is the composition of Educational Administration assignments, Extension/consultancy activities, Students' supervision for research & allied academic activities. Since all these activities lead to the extension of knowledge and faculty efforts beyond the classroom teaching hence the factor has been designated as such. The respondents have attributed a total of 19 per cent weightage to this factor. Within the factor, highest weightage has been given to Students' supervision for research & allied academic activities (9 per cent), followed by Educational Administration assignments (5 per cent) and Extension/consultancy activities (5 per cent). Self Review & Development (Factor 3) has also emerged as an independent factor and respondents have assigned 5 per cent weightage to self appraisal and 6 per cent weightage to the organisation of educational/co-curricular activities like seminars/conferences/ training programmes etc. It is worthwhile to mention that as per the study at hands 41 per cent respondents have viewed that in their respective universities 'self-appraisal' is used as a mode faculty evaluation. It signifies that self-review/self-appraisal may continue but its weightage in career progression and performance management of university faculty may be curtailed upto the extent given above.

As per the proposed model Class Room Environment (Factor 4) has appeared as the leading and dominating factor in faculty performance appraisal and management. The academia has viewed that 38 per cent of highest proposed weightage should be given to this factor which should encompass 'class teaching' (33 per cent) and 'students' rating' (5 per

cent). This situation confirmed that faculties of different universities believe rather unreservedly that 'class teaching' is the ultimate contribution which faculty can give to their respective institutions and therefore, it should count for at least one third of total rating scores. Much of the research efforts have been done on assessing the role and quantum of student ratings in faculty performance appraisal. Students are the actual customers in the education system and only they can assess the classroom performance of a faculty. Students' ratings for the faculty popularly known as 'Student Evaluation of the Teacher' (SET), being one of the important components, should be considered significantly while assessing faculty performance. The Students' Rating, which otherwise also has been emerging as a significant dimension, is a widely debated phenomenon in the higher education scenario of the day. As per the findings of the study, the students' ratings for faculty should constitute a maximum of 5 percentage total weightage. Research Contribution (Factor 5) has emerged as the second leading factor which is composition of Research Publications (research papers, popular articles, research books, textbooks, research reports etc.) (16 per cent), Sponsored research and consultancy projects from different funding agencies like UGC/DST/DBT/ AICTE/Industry (8 per cent). We can visualize from the Table results that component percentage of the research publications is second highest after class teaching component. Hence as per the faculty views the outcome of research publications sub-factor should carry a maximum weightage of 16 per cent during their performance evaluation and in totality this factor may be attributed maximum of 24 per cent weightage in total evaluation score of the faculty. In overall summation of the results it can be concluded that Factor 4 (Classroom Environment) and Factor 5 (Research Contribution) should count for approximately two third weightage (62 per cent) in overall performance ratings of the faculty and rest of components should not exceed 38 per cent of total weightage and that is how the proposed model will act not only a tool for faculty performance appraisal but also of performance management.

Conclusion and Policy Implications

Performance appraisal in service sector has been emerging as one of the critical component. With the wider spectrum of service sector, education service sector is more prone to performance management as human resources in the sector appreciate in terms of value with the passage of time. Whether this appreciation in value is justified or not need to be assessed through 360 degree appraisal and feedback mechanism. University system of the country governs the entire system of higher education thereby the faculty of university must pass through a well defined and objective mechanism of performance appraisal. In real practice, the outcome of the present study may be taken as a performance management activity rather than a performance appraisal activity. The traditional performance appraisals at their worst can be subjective, simplistic and political. Yet the need for accurate and fair performance measurement has increased exponentially as education system is facing greater internal changes and more external competitive pressures from the private players in the education sector. The present study brings out that 'Class Room Environment' factor which is a blend of 'class-teaching' and 'student evaluation of the faculty' need to dominate in faculty appraisal matters and it should be followed by Research Contribution factor. As a whole, approximately two-third of total rating score must constitute from the abovementioned factors and rest of the factors, i.e., Extension Activities, Self-review and

Development, and the Third Party Ratings should constitute approximately one-third of total rating score in the matters of faculty progression and performance pay matters. Fortunately this matter has been taken care of in the UGC 6th Pay Commission recommendations though it is under clouds in terms of its implementations. The present model suggested by the researchers is quite simple and objective in implementation and of course will prove morale boosting for high performers while differentiating the good performers and the poor performers. The implementation of model in letter and spirit will be ultimately beneficial for the entire education and social system as it will encourage the faculty to be more autonomous, responsive and accountable.

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RESEARCH NOTE

Mid-Day Meal Scheme and Growth of Primary Education

– A Case Study of a District in Orissa

Jayant Parida*

Abstract

The Mid-Day Meals Scheme (MDMS) was launched in 1995 as a centrally sponsored scheme to give a boost to universal primary education. The main focus of the MDMS was to increase enrolment and retention and simultaneously, to take care of the nutritional status of primary level school going children. The present study attempts to analyse the impact of the scheme on primary education in terms of enrolment, attendance and drop-outs in primary schools in Bhadrak district of Orissa.

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Introduction

Education is the most important invention of mankind. It is more important than his invention of tools, machines, space-crafts, weapons and medicines because these are the products of education. Man without education would still be living just like an animal. It is education which transformed man from a mere two-legged animal into a human being. It helps him to behave like a man and prevents him from behaving like an animal. Hence, the value of education is recognized in every society. Education and knowledge are viewed as great wealth in themselves. Education creates and diffuses knowledge. It expands intellectual horizons and empowers the people to have better quality of life (Tilak, 2003). Education is also regarded as the cornerstone of economic growth and social development. It contributes to economic development through increased national income and individual earnings. Education is not only of direct importance to living (for broadening a person's horizon of perception and thought), it can also influence the conversion of other entitlements of human ability (Dreze and Sen, 1995). Education is the principal means of promoting welfare of individuals and quality of life. It is also considered as the key element of human development, the only and the greatest liberating force (Dhawan, 1997).

Despite the constitutional commitment, the goal to achieve universal primary education still remains a distant dream. According to 2001 Census report, about 34.62 per cent of people remain illiterate in India. Furthermore, those who join primary schools, only one-third of students continue beyond the primary level. The drop-out rate is quite high in primary schools. The situation is worse in rural and backward areas. It is found by many scholars that extreme poverty, malnutrition and under-nutrition amongst the school going children are major causes of illiteracy. To overcome this problem and to increase the literacy rate and reduce drop-out rate, the Governments (both central and stales) have introduced several schemes since independence for promoting education among school going children. These were Integrated Child Development Scheme (ICDS), Balwadi Nutrition Programme (BNP), NGO supported schools, Ashram Schools etc. But when these schemes failed to achieve the desired goal, the Union Government launched new educational promotion scheme under the name of Mid-Day Meals Scheme to universalize primary education.

The Mid-Day Meals Scheme or National Programme of Nutritional Support to Primary Education, started on 15th August 1995, is hailed as the "single largest programme for the benefit of school going children". The programme was started in Orissa in 1995. Under the scheme cooked-food is supplied lo students at primary level from Standard I to V. As per the guidelines of the scheme, l00 grams of rice and l0 grams of dal per student per day are supplied to schools. The Government of India provides rice and Government of Orissa provides Fund towards purchase of dal, vegetables, oil, condiments and transportation charges etc. @ 0.64 paisa per beneficiary per day. The government of India provides cooking cost @ ₹1.00 per beneficiary per day and accordingly ₹1.64 (₹0.64 from state government fund) is being provided per beneficiary per day. The table below presents the detailed break up in this regard.

Ration cost under MDM scheme (in ₹)

Rice 100 gram (Provided by Government of India)	
Dal (15 grams)	0.50
Supervision charges per child	0.30
Oil (I gram)	0.05
Vegetables, condiments, salt etc.	0.16
Fuel and Stationery	0.18
Transportation Charge etc	0.35
Egg	0.35
Total (₹)	1.64

Since its inspection, no systematic study has been done to evaluate the impact of the programme on primary education in Orissa. Hence, it is imperative to study the working of the scheme and its impact on universalisation of primary education. To analyse the impact of the scheme, the present study was conducted in the Bhadrak district of Orissa. Empirical data for the study were collected by the author from the 20 sample primary schools, situated in the four blocks of the Bhadrak district. Further, to gather information regarding the impact of the Scheme, 80 students, 60 parents/guardians, 20 teachers, 20 Panchayat/ Municipality representatives and 20 government officials were randomly interviewed through structured questionnaire schedule. Besides, primary data on enrolment, attendance and drop-out rates of school going children were collected from the School Registers and Inspection Reports. To assess the impact of the scheme on boys and girls, an attempt was also made to collect data on gender basis.

Impact of MDMS on Primary Education

This section provides an analysis of the impact of MDMS on primary education. The impact analysis of the paper is based on the views of teachers, students, guardians and government officials involved in the operation of the scheme and field data collected from 20 sample school registers, inspector records.

Two major research questions under consideration for the study are:

i. Whether MDMS has any positive impact on the primary education in terms of increasing enrolment, attendance, and decreasing drop-out rates.
ii. Whether the MDMS suffers from structural and operational deficiencies.

To measure the impact of the MDMS on primary education, three major variables such as enrolment, attendance and drop-out rates were taken into consideration. The MDMS was introduced in Orissa in the academic year1995-96. To study the impact of the scheme on the above variables in the sample schools of Bhadrak district, the time series data covering two periods, viz. the pre-Mid-Day Meals period (1990-95) and post-Mid-Day meals period (2000-05) were collected. This was done with a view to understand the trends on these indicators for pre- and post-Mid-Day Meals period.

TABLE 1
Average Annual Growth in Enrolment of Students in the Bhadrak District* (%)

Area/ Period	SC			ST			Others			Total		
	B	*G*	*T*	*B*	*G*	*T*	*B*	*G*	*T*	*B*	*G*	*T*
Bhadrak Block												
1990-91 to 1994-95	-7.91	-10.49	-9.12	-10.91	-12.94	-11.34	-8.14	-10.79	-9.52	-8.13	-10.73	-9.44
2000-01 to 2004-05	-0.23	-0.51	-0.35	1.06	1.06	0	-0.48	-0.03	-0.23	-0.39	-0.15	0.51
Basudevpur Block												
1990-91 to 1994-95	-7.12	-6.55	-6.80	-6.17	-7	-6.74	-7.26	-7.14	-7.20	-7.21	-7.00	-7.11
2000-01 to 2004-05	-2.00	-2.49	-2.29	-1.37	-1.02	-1.27	-1.84	-2.08	-1.97	-1.86	-2.17	-2.03
Bonth Block												
1990-91 to 1994-95	-2.47	-7.21	-4.96	-5.11	-7.45	-6.34	-3.37	-7.04	-5.35	-3.17	-7.10	-5.27
2000-01 to 2004-05	2.39	-0.59	-0.85	4.63	-0.64	1.92	2.31	-0.65	0.76	2.40	-0.63	-0.82
Chandabali Block												
1990-91 to 1994-95	-0.42	0.56	0.12	0	0	0	-0.12	0.95	0.46	-0.19	0.85	0.38
2000-01 to 2004-05	4.67	5.21	4.96	4.19	3.51	16.55	4.56	5.18	4.88	4.58	5.26	4.94
Bhadrak District												
1990-91 to 1994-95	-5.16	-6.43	-5.82	-6.86	-7.97	-7.31	-5.33	-6.57	6.07	-5.47	-6.55	-6.03
2000-01 to 2004-05	0.94	0.03	0.46	1.69	0.66	1.27	0.73	0.32	0.51	0.79	0.25	0.51

Note: *Figures based on field data collected from sample primary schools.

The analysis of data shows that the average annual growth rate of enrolment in the Bhadrak district has increased in the post-Mid-Day Meals period in comparison to pre-Mid-Day Meals period. During pre-Mid-Day Meals period, the average annual growth rate of enrolment was 6.03 per cent and in the post-Mid-Day Meals period it is 0.51 per cent. Furthermore the growth rate of enrolment of all category of students i.e. SC, ST and other (both Boys & Girls) increased in the post-Mid-Day Meals period. This implies that there has been an increase in the number of students enrolled in the post-Mid-Day Meals period. Overall, Table 1 shows that Mid-Day Meals has a positive impact on the enrolment of students in all categories. However, except Chandbali Block, the annual growth rate of enrolment in other blocks was found negative, both in pre- and post-Mid-Day Meals period.

Mere enrolment is not sufficient for learning. For better quality of learning, regular attendance in the classroom is very necessary. To increase the rate of attendance of the students, Mid-Day Meals programme was started in India. The Table below provides the percentage of average attendance rate of students in both pre- and post-Mid-Day Meals period.

TABLE 2
Attendance Rate of Students in Different Periods* (%)

Area	Period	Boys	Girls	Total
Bhadrak Block	1990-91 to 1994-95	79.01	77.34	78.29
	2000-01 to 2004-05	86.27	83.50	84.94
Chandabali Block	1990-91 to 1994-95	81.78	79.57	80.75
	2000-01 to 2004-05	86.65	84.97	85.84
Basudevpur Block	1990-91 to 1994-95	76.04	74.00	75.06
	2000-01 to 2004-05	83.05	85.57	84.23
Bonth Block	1990-91 to 1994-95	78.99	77.57	78.38
	2000-01 to 2004-05	88.79	89.74	89.30

Note: *Period 1990-91 to 199495 refers to pre MDMS period and 2000-01 to 2004-05 refers to post MDMS period.

Table 2 reveals a rising trend of attendance during the post-Mid-Day Meals period. The average attendance rates of both boys and girls have gone up from 78.12 per cent in the pre-Mid-Day Meals period to 86.08 per cent in the post-Mid-Day Meals Period. It clearly demonstrates that the percentage of average attendance has improved over the study period among both the sexes and all types of schools. To know the reasons for the increasing attendance rate of students in the post-Mid-Day Meals Period, the opinion of the teachers, parents and students were registered. As per the opinions of the respondents, the Mid-Day Meals scheme is one of the reasons for the increasing attendance rate of students. But the other vital reason were: increasing awareness of education among the parents, (ii) increasing interest of the parents to send their children to schools, and (iii) the impact of other facilities and incentives like free-books, dress materials etc.

Another variable used in our study was drop-out rate. The school lunch programme was primarily introduced to prevent drop-out from the schools. The result/analysis is presented in the Table 3 below:

TABLE 3
Average Drop-Out Rate of Students in Different Periods in Bhadrak District (%)

Area	Period	Boys	Girls	Total
Bhadrak Block	1990-91 to 1994-95	37.19	39.33	38.10
	2000-01 to 2004-05	22.62	29.91	25.34
Chandabali Block	1990-91 to 1994-95	28.13	21.43	24.63
	2000-01 to 2004-05	12.38	19.81	16.11
Basudevpur Block	1990-91 to 1994-95	19.12	16.19	17.84
	2000-01 to 2004-05	11.33	11.29	11.31
Bonth Block	1990-91 to 1994-95	20.99	25.00	22.82
	2000-01 to 2004-05	13.08	12.64	12.89
Bhadrak Dist.	1990-91 to 1994-95	26.37	25.30	25.89
	2000-01 to 2004-05	15.47	18.65	16.92

The table above shows that he average drop-out rate for boys and girls has declined in the post-Mid-Day Meals period. The average drop-out rate in pre-Mid-Day Meals period was 25.89 per cent which has reduced to 16.92 per cent during the post-Mid-Day Meals period. This implies that the average drop-out rate in the district has declined by 8.97 per cent indicating positive impact of the school lunch programme. Decrease in drop-out rate also implies that there has been an increase in the average retention rate of students. Our study has found that in the district the average retention rate has increased from 74.11 per cent in the pre- Mid-Day Meals period to 83.08 per cent in the post-Mid-Day Meals period. Table below depicts the percentage of average retention in the district.

TABLE 4
Average Retention Rate of Students in the Bhadrak District (%)

Area	Period	Boys	Girls	Total
Bhadrak Block	1990-91 to 1994-95	62.81	60.67	61.90
	2000-01 to 2004-05	77.38	71.09	74.66
Chandabali Block	1990-91 to 1994-95	71.87	78.57	75.37
	2000-01 to 2004-05	87.62	80.19	83.89
Basudevpur Block	1990-91 to 1994-95	80.88	83.81	82.16
	2000-01 to 2004-05	88.67	88.71	88.69
Bonth Block	1990-91 to 1994-95	79.01	79.00	77.18
	2000-01 to 2004-05	86.92	87.34	87.11
Bhadrak District	1990-91 to 1994-95	73.63	74.70	74.11
	2000-01 to 2004-05	84.53	81.35	83.08

The retention rate both for boys and girls has shown an increasing trend in the post-Mid-Day Meals period indicating the impact of Mid-Day Meals scheme on the retention of children at schools.

Operational Problems of the Scheme

Though the study has found that MDMS has produce positive result, the operation of the scheme is not free from defects. This study found a number of socio-economic, cultural, financial and administrative problems influencing the operation of the scheme. In the study area it was found that general and higher caste students were not taking mid-day meals with other caste students on account of their social status and prestige. This was also true in case of students belonging to higher income group parents. There were often complaints by children and parents of higher caste that mid-day meals were prepared and served by cooks and helpers belonging to lower castes. Further, the poor quality of food sometimes discourages the children to take noon meals in schools.

The quality of food materials supplied for school lunch programme is found very poor. Rice supplied by the FCI godown was found producing bad smell. Dal and other condiments supplied by the agents were not fit for human consumption. Massive corruption and heavy kick-backs were reported in the operation of the scheme.

The scheme also suffers from managerial and administrative problems. There is no separate staff to look after the operation of the Mid-Day Meals programme. At the school level, it is the Headmaster/Headmistress or his/her representatives who are mostly involved

in the management and operation of the noon-meals. The teachers also maintain daily record, receipts and expenditure under the programme. All these affect the study hour, the teachers' ability in engaging classes. Overall, it makes adverse impact on the study atmosphere. At the upper level, there is poor coordination and cooperation among the officials with regard to operation of the scheme. District Social Welfare officer, Block Development officer, Sub-Inspector of Schools who have been given additional responsibility of supervision and coordination of the programme are over-burdened with their daily work and get very little time to supervise properly the operation of the scheme. Every government official interviewed informed about his/her inability to shoulder the extra burden of supervision and coordination of the operation of Mid-Day Meals Programme.

The scheme also suffers from financial problem. There is no separate budgetary provision for the scheme. Financial allocation for operation of the scheme is found not only inadequate but also irregular. Due to inadequate provision of money for purchase of vegetables, condiments, fire woods, etc, the quality of meals (cooked food) served to the students is very substandard in all the schools.

Conclusion

Education is considered as a key component of human development. It moulds the consciousness and character of persons. Realising the importance of education, both the central government and the state governments, since independence, have undertaken so many measures to universalize primary education. Among the various measures undertaken in the recent past, the National Programme of Nutritional Support to primary education or popularly known as Mid-Day Meals scheme is a landmark programme in the direction of spreading primary education. The MDMS is hailed as a historic scheme in terms of promoting 'equity', 'democracy' and 'social justice' in primary education. The main focus of the MDMS is to increase enrolment, retention and simultaneously, take care of the nutritional health of primary level school going children. To know the impact of the programme, this study was carried out in a coastal district of Orissa.

The study found that the MDMS has produced a positive impact in the case of attendance and drop-out rate. This scheme has increased the enrolment of boys and girls of all categories in all the schools. The scheme has also been able to increase the rate of attendance of school-going children. Further, the school lunch programme, to some extent, enables to reduce the drop-out in all sample schools. However, it needs to be mentioned that the MDMS is not the sole reason responsible for spreading of primary education. Increasing consciousness on the part of the guardians, implementation of other educational promotion schemes like Sarva Sikhya Abhijan etc., could be the other reasons responsible for increasing the rate of enrolment and decreasing drop-out rates. This calls for further investigation in this regard.

Though the impact of MDMS is impressive in terms of enrolment, retention and attendance, nonetheless, the scheme suffers from a number of bottlenecks in the course of its implementation. The quality of food materials supplied for the noon-meals programme in found very poor. Massive corruption and kick-backs are also reported in the operation of the scheme. Financial allocation for operation of this scheme is inadequate and irregular. Supervision and monitoring of the programme is not regular. The study hours of the schools

are getting affected due to direct involvement of teachers in the management and operation of the noon meals.

To overcome the defects and make this scheme more effective, we may suggest the following policy measures:

1. At the school level, the operation and management of the scheme should be handed over to local NGOs or Self-Help Groups. These groups should be associated with the supply of cooked meals to the schools.
2. The teachers should be associated with the supervision and monitoring of the programme.
3. The support of Parents and Teachers Association (PTA), Mother Teachers Association (MTA) should be solicited to ensure regularity and quality of Mid-Day Meals given to children.
4. Gram Panchayat Representatives and Village Education Committee (VEC) should encourage the villagers to help the school management in ensuring timely cooking, serving and cleaning operation on rotation basis.
5. Separate budgetary provision should be made for successful implementation of the programme.
6. There is also an urgent need for raising the per head allocation of funds, taking into consideration the market price of Vegetables, Dal, Spices, Fire woods etc.
7. Adequate steps should be taken to tackle the problems of corruption and kick-backs.
8. MDMS needs to be monitored and supervised regularly. The programme needs to be monitored at various levels, (district, block and school) regularly.

At the end, we may say that Mid-Day meals programme is a massive social welfare programme aiming at attracting children into the educational mainstream and also providing them with all the much-needed supplementary nutrition to make them healthy and worthy citizen of the country. This is a pious programme in the direction of universalisation of elementary education. However, implementational problems associated with this scheme need to be overcome to make this programme more effective.

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RESEARCH NOTE

On Opening New Colleges in Tamil Nadu

– Is College Population Index Justified?

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The Eleventh Plan aims 'to set India as a nation in which all those who aspire good quality higher education can access it, irrespective of their paying capacity.' To achieve this objective the plan document further states, 'Expansion, inclusion, and rapid improvement in quality throughout the higher and technical education system by enhancing public spending, encouraging private initiatives, and initiating the long overdue major institutional and policy reforms will form the core of the Eleventh Plan effort.'

As a monitorable target, the Eleventh Plan aims at improving the Gross Enrolment Ratio (GER) in higher education from 11% in 2004-05 to 15% in 2011-12 and to 21% in 2016-17. Further it highlights that the GER is generally higher in urban than in rural areas, for men than women, for other communities than SCs, STs and OBCs. But the regional, social and gender disparity in GER from primary to higher secondary schools also exists.

One of the major Eleventh Plan initiatives is to start 370 new degree colleges in districts with low GER based on careful selection. In resource scarce countries, like India, what should be the criteria while allocating resources especially in higher education? The allocation should be more judicious given the fact that the access to primary education is still not universal. Several issues need to be looked into. Should the focus be on strengthening existing colleges or starting new colleges? Even in case of starting new colleges should we look district as a unit or State as a unit or should we address the problem from only supply point of view or look at the demand of higher education also? The answers could be the basis for a comprehensive approach to enhance access to higher education equally across India as well as to different social groups.

A recent UGC report (of a committee headed by Prof. Thyagarajan constituted to probe this issue) has taken district as a unit and has classified districts into different groups based

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on Gross Enrolment Ratio (GER). The measure includes all the students enrolled in higher education proportionate to population in the 18-23 years age group. This is then used to identify Educationally Backward Districts (EBDs) for the purpose of planning and allocation of funds for starting new arts and science colleges. Since enrolment in higher education is significantly influenced by the availability of educational infrastructure and facilities, College-Population Index (CPI) has been calculated as a measure of college availability. CPI represents the number of colleges per lakh population in the age group of 18-23 years in a given district. Accordingly, 374 districts have been identified as EBDs and categorized as A with GER of <3.0 (n=11); B with GER range of 3.01-6.00 (n=79); C with GER range of 6.01-9.00 (n=143) and category D with GER range of 9.01-12.4 (n=140).

The aim of the report is to suggest phase-wise prioritization plan of establishing 'Model Colleges' in the identified EBDs. The report then uses CPI as a measure to suggest how the funds need to be allocated by Government of India under the Eleventh Plan in phases. In Phase-I there are 86 EBDs with CPI equal to or below 4.0; Phase II EBDs are 114 with the CPI range of 4.01-8.0 and Phase III EBDs are 172 with CPI range of 8.01-12.4.

The CPI reflects the relative difference in supply of higher education between districts. On the other hand, the difference in GER is an outcome of both supply of and demand for higher education in districts. Instead of using CPI as a measure, it is appropriate to base the decision to expand access to higher education on a direct measure of the demand for higher education in each district. For instance, the number of students obtaining higher secondary certificates every year is a good measure of demand for higher education in a district and the number of existing arts and science colleges is a good measure of supply of higher education. Incidentally, several recommendations of the report have been accepted. The Cabinet Committee on Economic Affairs, on January 21, 2010, approved the setting up of model colleges in these 374 districts.

This article taking Tamil Nadu (TN) as an example argues that using CPI and GER as measures to determine the need for a college gives erroneous results. As per the report, five districts – Villupuram, Tuticorin, Virudhunagar, Ariyalur and Tirunelveli in TN have CPI of below 4, hence require financial allocation and colleges need to be set up there in Phase I. Phase II consists of 8 TN districts, whereas in phase III seven districts of TN will be given financial allocation (Table 1).

Roughly on an average 4.75 lakh students pass out of plus 2 system in TN every year. To accommodate these students, TN has 1.22 lakh engineering seats and 2.06 lakh seats in arts and science streams at the undergraduate level. Apart from these, there are nearly 0.5 lakh seats in medicine and allied subjects including agricultural sciences and other courses. This implies that there are approximately 3.8 lakh seats available at undergraduate level in the first year. This matches the demand of seats if we assume that of these 4.75 lakh students nearly 20% would be in the job market immediately after the plus two.

Moreover, the admission to all the courses is decided at the State level and there is no regional quota for a district or for colleges within a district. In that case, deciding on the basis of district-wise enrolment for identifying EBD has less relevance. The only question is whether allocation at the State has denied any deserving candidate from these backward districts. We do not have any information on this, but tackling that requires a different strategy and not opening new colleges in districts, which have low demand for higher education.

TABLE 1
Identification of EBDs and Students per College in Different Districts of TN

S. No.	District	CPI	GER	Passed		Students per college	No. of colleges	Students Passed in +2/ 18 years population	
1	Villupuram	3.7	4.9	18460		1154	16	21.5	
2	Tuticorin		7.7	13950	Phase I				
3	Virudhunagar	2.2	7.2	16422		2053	8	22.4	
4	Ariyalur	2.6	7.5						
5	Tirunelveli	3.6	7.4	23316		1943	12	35.5	(26.5)
6	Pudukottai	6.6	5.8	10255		855	12	28.1	
7	Tiruvannamalai	7.0	4.0	14047		936	15	33.0	
8	Cuddalore	4.3	8.9	16361		1363	12	29.3	
9	Nagapattinam	5.6	7.1	10637	Phase II	1064	10	29.8	
10	Dharmapuri	5.7	6.6	21295		1121	19	31.7	
11	Tiruvarur	5.7	6.5	9144		1143	8	32.7	
12	Karur	6.8	8.7	5930		847	7	28.8	
13	Vellore	7.7	6.7	22417		1067	21	41.3	(31.8)
14	Theni	12.2	5.5	9535		636	15	38.7	
15	Ramanad	8.9	7.1	9427		725	13	32.3	
16	Dindigul	10.0	7.4	13358		607	22	30.2	
17	Udagamandalam	9.6	9.1	5415	Phase III	602	9	28.9	
18	Salem	10.2	9.1	22721		631	36	32.2	
19	Erode	11.0	9.6	21028		678	31	37.2	
20	Kanniyakumari	12.4	11.1	17892		688	26	42.6	(34.6)
21	Thanjavur	16.9	8.3	19938		443	45	37.4	
22	Coimbatore	25.0	8.9	30045		237	127	29.5	
23	Tiruvallur	13.2	12.1	22737		484	47	31.8	
24	Perambalur	14.2	10.4	9377		1172	8	83.0	
25	Sivaganga	14.6	9.1	10303		515	20	37.6	
26	Madurai	22.1	10.6	20967		300	70	33.1	
27	Kancheepuram	23.1	9.4	24162		281	86	32.4	(40.7)

Note: Italicized figures given in the last column are the average for the group.

The low demand also gets reflected if we compute the students passed in plus-two as a proportion to the population in 18 years age group in the district (Table 1). As can be seen, this ratio increases with decline in Educational Backwardness of the district. In other words, the districts which are more educationally backward also have less number of students requiring higher education. This indicates that the solution lies not in opening new colleges in the district, but increasing school enrolment, reducing drop-out and increasing passing percentage up to plus two level.

A disaggregated analysis at the district level also tells the same story. A simple calculation based on number of students passed in +2 and dividing it by number of (government and government aided) colleges in each district gives us number of students needing higher education per college (column 4). Assuming a college can admit normally

500 students in year one and all these college run in two shifts and given the fact that in TN nearly 20% of students go for technical education and another 20% enter the job market immediately after plus 2, in that scenario we need to have only 1000 students per arts and science college. Under the situation, there are only 9 districts that require new colleges (Table 1).

The above Table, however, does not include private universities in the State. If we include quantum of admission in private universities, the need for opening new colleges for higher education in the State will diminish further. Moreover, the recent data, on the contrary, indicates an over-supply of higher education. In 2008-09, the sanctioned seat-strength in arts and science colleges was 252,767, whereas only 206,454 seats (≈ 82%) were filled. Nearly 3000, 17,000 and 26,000 seats were vacant in government, government-aided and private colleges respectively. Though almost all the seats were filled in government and government aided engineering colleges, near about 13,000 seats were vacant in private engineering colleges. There are two reasons for the huge vacancy in both arts and science and engineering colleges – one, there could be mismatch between courses demanded and supplied (directly linked to the employability of students after the programme) and two, the tuition and other fees are prohibitively high for the poor. Thus a mere expansion of arts and science higher education in public sector will not address the low GER in higher education, rather, the changing pattern of demand for different courses also should be addressed.

The implication of the report is evident from the fact that the projected total financial requirement for the entire scheme of establishing 374 'Model Colleges' across the country during the XI Plan period would be ₹2992.00 crores as one time non-recurring budget with Central government bearing ₹1079 crores of this (i.e., approx. 36%) and ₹561.00 crores per annum under the recurring budget. This is based on the projection of ₹8.00 crores per college as the non-recurring cost and ₹1.50 crores per annum per college under the recurring expenses required for salaries & hiring charges (₹1.00 crore/college) and college running and maintenance requirement of ₹50.00 lakhs/college.

There are two ways to improve the quality of any system – one is to refurbish the existing institution or alternatively start new institutions which are model in nature. This is true of higher education in India too. Refurbishing existing institutes or colleges requires greater effort. This would warrant a multi-pronged approach with attitudinal change and might require use of both carrot-and-stick to improve the quality. On the other hand, starting new colleges is much easier as this only needs allocating funds. But the former is not only economically efficient solution but also socially just. The fact that most of the newly created colleges in the public sector are under different sets of rules and regulations than those prevailing in older institutions, there is visible difference in quality of higher education within the public sector. For obvious reasons, this should not be allowed to proliferate otherwise. Moreover, unless the disparities at the lower levels of education are addressed the efforts to increase GRE in higher education will be of no avail. Rather there is a need for synchronized spatial planning both of school education and higher education to remove any kind of disparity.

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Book Reviews

Agneta, LIND (2008): Literacy for All: Making a Difference. Paris, UNESCO, ISBN: 978-92-803-1313-0, Paperback; Pages: 147

The book under review deals with various aspects of literacy education with special reference to adults. The aspects of adult literacy education discussed in the book include the concept, need or function, and strategies and outcomes of literacy programmes. In the introductory chapter, the author presents (i) the objective of the book, viz. discussion on creating literate societies and the policies needed for raising the literacy level of the adult population; and (ii) the organisation of the contents of the book on the various aspects of literacy into the different chapters. In addition to the introduction, eight chapters constitute the book.

Chapter I on "The challenges of literacy for all" deals with some of the difficult problems involved in the task of providing literacy for all adults. They include the close link of adult illiteracy with poverty, confusion on functional literacy in a multi-language situation, disparities among populations within the same nation, unreliability of the instruments used in estimating literacy rate (which results in overestimation of literacy rate) and the differing views on the instrumental nature of literacy.

Chapter II on "Meanings and concepts of adult literacy" explains the concept of literacy and adult literacy in the context of the various related terms used in the literature on literacy. The discussion in the chapter presents the concepts and terms with clarity and precision.

Chapter III on "Why literacy for all, not just school children?" discusses an important issue in adult literacy, viz. the rationale for the efforts or programmes in adult literacy. The author has argued for the cause of adult literacy from different perspectives and on different grounds. The underlying principle stressed here is "that literacy (skills) in itself is only a potential communication tool or asset that may or may not be used for a great variety of purposes. As a capacity, it can be more or less mastered, and without application it can easily be lost or become meaningless. There is no automatic effect of literacy; it depends on the process of acquisition, the context, and how and for what it is used" (p. 57). Basing on this principle the author argues that the right to education in the 1948 UN Universal Declaration of Human Rights is rooted in the right to literacy, literacy is implied in two of the education-related Millennium Development Goals (MDGs), and literacy is positively linked to human development. The author has also pointed out the difficulty in establishing the returns or cost-effectiveness of adult education, although available "studies on costs per successful adult literacy learner compared to the cost per learner completing four years of primary education show that adult literacy was cheaper" (p. 68). The discussion on this issue in the chapter is concluded with emphasising the point "that literacy is a potential asset for individuals, families, and local, national and global communities. These assets are human, political, socio-cultural and economic" (p. 77)

Chapter IV, "Enabling contexts and learning environments" speaks of the need for creating appropriate context or environment for adult literacy education, especially the political will and placing literacy in the developmental context of the society.

Chapter V, "Literacy acquisition and teaching-learning approaches" focuses on motivating adults for adult literacy education. In this context the author mentions the issue of the choice of language for instruction and points out that, when mother tongue is selected as the most appropriate one, it is necessary to find out which language the learners demand. Otherwise they may drop out. Also, "learning literacy in a language without written material is not very meaningful" (p. 88). Another point, raised by the author with reference to the approaches and strategies for adult literacy education, is participatory method. The approach of REFLECT (Regenerated Freirean Literacy through Empowering Techniques) adopted by non-government organisations (NGOs) is highlighted in the book. Another approach mentioned by the author is the inclusion of development-oriented programme components (such as learning contents about practices of everyday life and livelihood skills) in the adult literacy education.

Chapter VI, "Evaluating and monitoring literacy programmes" speaks of the need to have a system of monitoring and evaluation of adult literacy education, and appropriate techniques with reference to the objectives, components, strategies and outcome of adult literacy programme.

Chapter VII on "National policies and strategies" points out that major adult literacy programmes have been initiated and led by the government in collaboration with other agencies of the civil society. The state therefore should have national policies on adult education that enlists the involvement of other agencies.

The eighth and last chapter "Conclusions and implications for educational planners" reiterates that the effects of literacy "are not automatic; yet, literacy is necessary ingredient of active citizenship, healthy and prosperous lives, gender equality, peace and overall human development" (p.135) and lists some suggestions for better implementation of the adult literacy programmes. The book concludes with the observation that more financial investment is needed in the sector of adult literacy education.

Substantively, the book discusses an important issue in the area of basic education or even right to education. Most of what is discussed in the book is relevant and useful to multi-language countries with large population of non-literate adults, like India. The points of adult literacy education discussed in the book have been presented with research reference and in a systematic manner. However, a few chapters in the book do not contribute much to the theme of the book. Comparatively, chapter VI on evaluating and monitoring literacy programmes does not highlight any important issue of adult literacy, except pointing out the need for monitoring and evaluation. Similarly the matter presented in chapter IV on enabling contexts and learning environments could have been better integrated in chapters V (where approaches are discussed) and VII (where political will is dealt with). The three page concluding chapter has turned out to be just a ritual. The other chapters deal with various important issues of adult literacy. They are presented with clarity and are quite useful to students and teachers of adult education, and agencies implementing adult education programmes.

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National Council for Teacher Education (1998): Policy Perspectives in Teacher Education – Critique & Documentation. New Delhi; Price ₹100.

The present book review is critical of the book titled Critique & Documentation and the main arguments are directed against the way the documentation has been done. The first grouse is that the entire group is innocent of Indian history. They have never read a single book on Indian history. They summarize teacher education programmes before Independence in just about 5 lines overlooking the fact that teacher training existed in a fairly developed form of a highly complex, yet in highly specialised institutions in ancient times wherein training in architecture, mathematics, law, medicine, physical sciences, music, environment etc. they taught and these people had knowledge of the binary system; besides astrophysics and logic. They knew and used zero for oral mathematics. Muslims too had also a fairly developed arrangement in their madarsas. A single book, if read, on medieval Indian history could have improved their understanding about the merits of early education. The fact is that the concerned section is only a summary of what is available in Doaba notes. Secondly, they never heard of Serampore and about the Norwegian missionaries starting teacher training and not Education for their missionary workers in the year 1793.

It was natural for them to train their workers first and open Missionary institutions. The idea was to convert heathens. In fact, the earlier Indian history of teacher education covers a period of 4000 years. They cite Archival material as casually as they cite Nurullah & Naik without realizing that they have been more slipshod than any of our contemporaries. If one knew that the entire documentation in the work cited above was done by Naik alone they would have to squirm in shame. And to say that teacher education has *non-religious (p.3)* origins is written in utter disregard of Indian history and our heritage. Even today the best institutions of learning are run either by the Christian missionaries, or by those who support Sanskrit pathshalas or the Islamic madarsas. In terms of the documentation in other part of the book the group of writers/scholars acknowledged to have worked and named have been either too lazy in reading the texts or misguided and are, therefore, quite misleading in their observations to deserve our respect. They hardly ever cite the reasons for the creation of an institution or cite the source for the birth of such a terse discussion or present a correct background for their very scholarly (?) or mafia-like discussion. The present attempt seems to confuse serious readers who wish to know why such a discussion was at all attempted. For instance, if I wish to know why Regional Colleges of Education were started initially and continue to increase in number under a new name I find no text to quench my thirst and the discussion does not help me to get to the reasons why they failed to serve the very purpose for which they were started and were lost to the cause that gave them birth and that too while they were still in the process of starting their innings. The tragedy involved here is lack of clarity in the entire write up. One wishes them to have spent some time in Shastri Bhavan library for consulting authentic material and documents reserved only for senior officers of the government.

During the British rule, our native scholars may have had no forum to express their views but not so after Independence. For instance, these scholars talk of Ph.D. in Education having been introduced in Indian universities after we attained freedom from colonial rule but do not give reasons why Sir Michael Sadler heading Calcutta Commission recommended

it in the first place and its impact on teachers' training as a whole. At least, a major citation from relevant record would have clarified several misconceptions and the vast gap that exists between the two warring groups – the private-aided or self-financed colleges and the older colleges affiliated to universities. It would appear that they additionally, wish us to accept the view that the whole of India was a British colony and the French and the Portuguese did not occupy any part of it and that neither had any programme for teacher training/or/educating their teachers. The fact is that they had systems of their own and did leave in their occupied territories of India their imprint besides several other parts of colonial India that were separated from it. We in India still continue with many features of the three earlier colonial powers and the Muslim rule. Also, nowhere it is clarified that these legacies became an integral part of nation's psyche. Look at our courts in year 2009 and the criminal law and the lax way our police deals with people and try to appreciate that the rich criminals and the poor get a differential treatment. This is medieval India's legacy. We still use Persian and Urdu words in our Courts of Law which continues to signify a culture different from that of any European nation.

They do not discuss which parts of the Indian Union became our integral parts during British rule and were separated after they left. For instance, Burma was separated in 1947 and Sikkim was later on merged with the country but the latter had a fully developed teachers' training programme. All this clearly betrays their lack of understanding India's history and the impact of each in turn on the Nation per se.

Surprisingly, they take credit for the work done before it became a statutory body. This is one more way in which these scholars are trying to confuse the young *uncritical* readers. Unlike other branches of academic areas Education does not produce critical minds. So far not a single professor of education has ever shown any acumen in logic. Firstly, these scholars too do not tell us why MHRD thought of setting up NCTE in1975 and that too why in the NCERT's department of teacher education. What was the reason to keep a reader in the dark about the birth of such an important institution? The main discussion is a kind of comparison between Teacher Education and teacher training. They show *contempt* for teacher training and opt to compare teacher education with the changes that have taken place in Education *system.* In fact, this is the way they finally come to the conclusion that *a B.Ed. degree does not qualify one to take the classes supposedly one is taught to take.* This is how they conclude a discussion on the subject. Read the following excerpt (p. 123) from this intellectual(?) work in which they defend their argument which makes B.Ed. degree *irrelevant.*

"The same rationale has been adopted with respect to teacher education. For instance, anyone with a B.Ed. degree is considered qualified to become a teacher educator for elementary stage in a secondary stage teacher education institute and anyone with an M.Ed. to become a teacher educator in a secondary teacher education institute. *This seems to defy logic,* since a B.Ed. degree holder is trained for secondary and even when not oriented towards elementary education, is entrusted with the responsibility of educating elementary school teachers. Instead they wish a non-linear approach to teacher education. They apparently defend the current policies of NCTE in which a B.Ed. is fit to take a B.Ed. class. They do cite even Kothari Commission only to obtain support for their specious argument.

Now read: (p.132)

'The Commission report induced a much wider recognition of the nature of education vis-a-vis national development. The Commission made a plea to strengthen the study of

education at the university level in such a manner that the processes of education and other related problems are examined in the context of "social reality" of which education was a part. Towards the end the Commission recommended the establishment of school of education. While they cite this part they do not say that the same Commission also said *that no teachers' college be allowed to function without a practicing school attached to it.* Now this clearly shows selective use of what favours one. Also, they do not discuss why the recommendations of National Commission on Teacher (1) took a long time getting accepted but in the case of higher education all of them were accepted promptly. The reason was that teacher education/training in the States and in the MHRD continues to be part of school education and not considered worthy of being accepted at par with higher education.

I am leaving the appendices part because it requires more space than a book review will allow. If these experts had ever paid a visit to the National Archives they would have known about topics/documents that would have made their work readable and meaningful. For instance, all communication between the company headquarters in London and its offices in India could be read and decision about medium of instruction e.g. Macaulay's Minutes could have been consulted or the history of CABE could have been written on. There exist many orders of similar nature in the MHRD library.

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Nayak, P.M. (2009): Community Participation in the Universalisation of Primary Education. Academic Excellence; New Delhi; Pages 274, (Hardbound); ₹750/-.

The book under review attempts to understand the role of communities in ensuring Universalisation of Primary Education (UPE). In India, there have been sincere attempts to achieve the un-finished goal of UPE with the community involvement at local level since independence. Through the introduction of decentralization in the mid 1980's, Panchayati Raj Institutions (PRI) became the facilitator of the people's participation in the school education system. Gradually people's direct participation in the management of primary education became indispensable and inevitable for materializing the goal of UPE. Through commencing the concept of democratic decentralization, there has been a power shift from the central to the local bodies. For instance, programmes like District Primary Education Programme (DPEP) and the on-going Sarva Shiksha Abhiyan (SSA) have envisaged constituting community bodies such as Village Education Committees, School Management Committees, Parent Teacher Associations, Mother Teacher Associations, etc., to accelerate the pace of UPE and to sustain the overall development of the country. To encourage decentralized governance in education sector the community participation is visualized as a means of social transformation.

The book deals with the historical and policy evolution of the community participation in primary education in India in general and Orissa in particular. It represents the social context of schooling in terms of the location of the school and its access to different caste/tribe groups of the village. The author tried answering several questions, how the

location of the school impacts the participation of the members of all social groups in the School Management Committee (SMC). Is there any impact on the socio-economic background of the parents and the SMC members in order to understand the social context in the village? It also highlights the processes of functioning of structures of community participation generated by the State in the form of SMC. It tried to understand the perceptions of the parents and the functionaries of the School Management Committee and examine whether there are any differences in the way the community participation facilitates in ensuring the goal of UPE. It reflects the group dynamics in operationalising the community participation in terms of caste, class and gender and how they affect the goals of democratic functioning within the SMC as well.

The social mapping of the villages presents a unique residential demarcation and segregation in terms of various caste groups, peasants (intermediary) upper castes, other backward castes (intermediary, middle level artisan and service castes), Scheduled Castes and Scheduled Tribes. Different castes within each of these broader social categories live together within their clan as a *ghetto*, making the principle of cohabitation applicable in a very limited manner in the case of the eight villages undertaken for the study. For instance, it is found that the so-called high caste members maintain social distance from the low caste members in terms of their residential arrangement. The members of a particular clan live together maintaining some distance from the members of other clans of the same caste group. It is found that the basis of such segregation is based on the distinct ritual status of each of the caste and the clan groups.

The physical location of the school is found to be within the dominant caste habitations in most of the villages, which seem to have an effect on the access of schooling to certain disadvantaged groups in those villages. This is reflected in the distribution of literacy rates among different caste/tribe groups of that village. For instance, in one village, as the author mentions, the school is located in the peasant caste habitations and most of the villagers are literate as they can read and write with understanding the local language, which is not evenly distributed in terms of the social category. The educational situation of the peasant castes and Other Backward Castes is better than the Scheduled Tribes and Scheduled Castes.

The author tried to study the socio-economic background of the parents of the school going children and the SMC members in order to understand the social context in which the community participation takes place. It was also intended to see whether there are any variations in the socio-economic background of the SMC members/functionaries and those who elect them, the parents of the school going children. The educational status of the parents and the SMC functionaries reveals that the educational status of the SMC functionaries is slightly better than the parents of the school going children. The summated index of Socio-Economic Status (SES) based on the educational status, occupational status and monthly family income of the parents and the SMC members reveals some significant findings. The data reveals that the social deprivation in terms of social class lies in the rural social hierarchy. While general and OBC groups are largely from the medium and high SES, the SC/STs are from the low and medium SES.

Regarding the conduct of the SMC meeting the study reveals that SMC meetings are held once in a year and instances are there where meetings do not take place at all. There are differences between the expected roles and the actual goals practised by the SMCs currently. For parents, making the school function effectively is utmost important and it supersedes all other functions of the SMC. Interestingly, various strategies for increasing the enrolment and

reducing the drop-out in the school were undertaken by the SMCs. In some of the villages, SMC functionaries have visited the houses of the children of five years and above to bring them to the school in regular intervals, once or twice in a year. SMC members opined that the quality of education provided in their schools is much to be desired. To attract more children to the school, SMCs tried to provide quality food in the school as part of the Mid-Day Meal scheme. The kind of items that are given priority in the meeting is dependent on the physical context in which the school is located, the other issues like inadequacy of teachers, poor socio-economic condition of the community members, lack of sufficient financial aid, lack of co-ordination among the members, inadequacy of classrooms, lack of incentives for the SMC members, political interferences and reservation of SMC seats in the village community are points pondered during these meetings.

The study tried to understand the group dynamics in operationalising the community participation in terms of caste, class and gender and how they affect the goals of democratic functioning within the SMC. Caste is perceived to be an important factor in the working of the SMC. For instance, the caste background of the chairperson is perceived to be important for the effective functioning of the SMC. The members of the higher castes stressed that they are better in governing the SMC compared to the lower castes. However, the members from the lower castes decline this line of argument and stress that commitment and willingness are important and not the caste for the effective functioning of the SMC. The data also substantiates the view that the rich, though they are not members, influence the work of the SMC. However, there appears to be some consensus among the rural community that the school improvement is given utmost priority and not their political agenda. Thus, the caste and class dynamics interplay with the political affiliations in the day-to-day running of the rural school and the SMC of that school. The study divulges gender of the chairperson is perceived to be important for the effective functioning of the SMC. The male members argue that they are better in governing the SMC compared to their female counterparts whereas some of the women members reject the idea and stress that commitment and willingness are important and not the gender for the effective functioning of the SMC. However, the household responsibilities are found to be the most significant impediment for the women chairpersons to perform their task effectively. Thus, the caste, class, gender and political affiliations do affect the functioning of the SMC in multiple ways and directions.

The study has focused on the processes and practices of community participation and it tried to understand the interplay of caste, class and gender in the community participation for achieving the goals of UPE through the SMCs. The study seems to be significant as it had attempted to understand the sociological dynamics of Indian villages. The author has delimited the scope and applicability of the study as it is confined to only eight villages in just two districts of Orissa. A bigger coverage would have brought in much more diversity of experiences in the actual functioning of the community participation for achieving the goals of UPE in the state of Orissa.

Community participation in education is not a new concept in India. Even during the pre-independence period the community and school had a coherent link since long. At present we are rediscovering the broken relationship in a new framework. The Gandhian concept of school education to make school as an integral part of the society is only found in the government policy documents not in its true strength. After independence the government has not given due emphasis in involving the community as it is thought that, it is only the responsibility of the state. But gradually through a series of committees,

commissions and five-year plans it has added emphasis on the importance of community participation in a more meaningful way. The book has rightly highlighted the dynamics of decentralization and its implication on the community participation in a fascinating manner. However, the area of community participation continues to be an important area for future research as there are no single or straight answers to the complex issue of community participation and its role in promoting the UPE in India.

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Agarwal, PAWAN (2009): Indian Higher Education – Envisioning the Future, Sage Publications India Pvt. Ltd., New Delhi; Pages xxxiii+448 (Hardbound); ISBN.978-81-7829-941-9; Price ₹ 895.

The book under notice looks at Indian higher education and adopts a comparative approach for analysis. The issues identified for discussion are: access, equity, relevance and quality. The Eleventh Plan identified core issues as: extension, inclusion and excellence. In introduction, the author states that the emphasis on the economic role of higher education reflects the contemporary reality, though the civic, moral and intellectual purposes of higher education are important and will continue to be so. It is stressed that changes in higher education are related to transformations taking place in the economy, demography and the society.

In the 'foreword', Philip G. Altbach points out that India has no higher education centre and no group of researchers are focusing on this subject. Higher education as an academic subject is not taught in the Indian universities and a large cadre of administrators sprawling higher education system have no training about how universities function. It is emphasized that without careful attention to improving the universities, provide more adequate funding, expanding the top quality sector of the system, eliminating corruption and ensuing that students who get access to higher education can successfully complete their studies, India's economic potential and eventually its economic success will be put in jeopardy.

By 2005, the higher education system has seen a seventeen-fold increase in the number of universities and 35-fold increase in the number of colleges in comparison to the number at the time of independence (India 2009). Demographic bulge, expanding school education and rising expirations has put considerable pressure for expansion of higher education. There are greater expectations from the system due to country's rapid economic growth and rising income. The gross enrolment ratio is about 11 per cent which is projected to be raised to 15 per cent by the end of 11th Plan and to 21 per cent by the end of12th plan. This will lead to massive expansion of higher education institutions. There are both large colleges and many colleges are small and non-viable. K.B. Powar (2002) expressed the view that Indian higher education has been compared to a monolith with a large core of mediocrity surrounded by a thin and discontinuous rim of excellence. The large core of mediocrity is a matter of deep concern and a rim of excellence a matter of pride and hope. There is a

suggestions that undergraduate colleges could be restructured to create smaller universities that are responsive to change and easy to manage. Next, the issue of expanding access has been associated with rising aspirations in the recent years. However, due to financial limitations, there are constraints on the enhancement of access. It has improved due to the expansion of private higher education; still there are gender differences, regional differences, rural-urban differences and differences in the upper and weaker sections of society in enrolment. At present, inclusive growth is the central development agenda and opportunities to higher education are viewed as the most potent tool to address the problems of such inequalities. The issues of inclusive growth and equity in access dominate the discourse on higher education in the country.

Private higher education in India is destined to grow. However, the state will have to negotiate equality and equity through a fair, transparent and participatory regulatory system that will be driven more by consumer interest. A framework that recognizes the complementaries of public and private higher education and ensures the healthy growth of both is required. In this mechanism, the interest of the students has to be kept in view. Next, there is no need for more funds for higher education, it has to come from government (central and states), parents and students. Private initiative needs to be encouraged to enhance capacity. There is a need to make fund allocation procedure objective so that it is outcome focused and performance based. There is a suggestion that the government support for higher education should be at least 1.5 per cent of G.D.P. It is emphasized that the increased outlay will have little impact on increasing access or improving the quality for bulk of higher education system unless these are accompanied with wider institutional reforms. Regarding deemed universities, it is reported that the centre will come out with a blue print to streamline deemed universities on the basis of Prof. Tandon Committee recommendations (The Hindu, November 17, 2009)

There is a feeling that the problem of skill shortages in the country can be effectively addressed by increasing enrolment in higher education. But from the labour market point of view, current enrolment levels are adequate and match the country's occupational structure. The skill shortages are at lower end where graduate skills are not required; the need is of blue collar skilled workers. There is no need to link the products of higher education with manpower planning and to restructure higher education accordingly viz.; a match between supply and demand in the market. The challenge lies in multi-level coordination with speed and flexibility to accommodate a large variety. Next, the author points out that despite India's poor performance in basic and applied research, there is a general optimism about India's potential in the knowledge based economy. Research funding has increased in recent years. There is a concern about lower PhDs graduating from Indian Universities. Experience has shown that gradual and experimental innovations bring in greatest gains in productivity. There are also signs of hope in academic research and research through higher education institutions needs to be substantially enhanced. The consortium approach has been adopted to enhance access to expensive e-journals and e-resources. For coordinating research, an institution like National Science Foundation may be set up. There is a need for greater collaboration among universities, R and D laboratories and industries. Recently, the need for science education and research has been emphasized by N.R. Narayana Murthy (*The Hindu*, November 13, 2009).

There is a need to develop a roadmap for streamlining regulation of higher education sector through decentralization of central regulation and development of institutional mechanism for effective market coordination. Compulsory self-disclosure in the form of returns of information by universities and colleges should be mandated to address problems of information asymmetry in higher education. Higher education institutions should have reasonable autonomy to decide on their entrance criteria subject to the condition that such criteria are fair, transparent and merit based. For this, there is a need to create a National Testing Service. The entire regulatory framework needs to be designed keeping in mind the increasing professionalisation of various occupations. A National Qualification Authority (NQA) could be set up to define standards of instruction, curriculum and academic titles in each subject area at various levels. Next, quality higher education is often linked to standards, measurement, assessment and control. In the face of knowledge revolution and mass participation, diversified and flexible provision of higher education is important. However, the quality assurance system is based on accreditation system. It is both for institutions and programmes and is organized at the national level. UGC has framed a regulation making it mandatory for all Universities and Colleges to be certified by National Assessment and Accreditation Council (NAAC). This move is an attempt to assess and thereafter ensure the quality of education offered in the institutions of higher education in the country (The Hindu, November 23, 2009). One important element in ensuring quality is attracting and retaining quality teachers and making them accountable. The impact of new technologies in enhancing quality and improving access can be far reaching. There is a need to improve ability (autonomy) of institutions and put pressure on them to perform (accountability) including change of curriculum.

There is a need for conducting a base-line survey of higher education and training system, both in public and private sectors. However, information on higher education is vague and out of date. Data standards and classification needs to be worked out. The author concludes that considering the nature of Indian polity and society, strategic intervention with an incremental approach would be the best way forward.

In sum, this book attempts to analyze the socio-economic and political scenario impacting on higher education. There is a need to strengthen and consolidate the existing institutions and to move slowly in the expansion of the system keeping in view the manpower requirements of the country. The book does not talk about curricular reforms. Pawan Agarwal has done a good job and deserves gratitude of the reader for his endeavour. The book will be of interest to educational administrators, teachers, policy makers and legislators interested in improving higher education.

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MIREY OVADIYA and GLUSEPPE ZAMPAGLIONE (2009): Escaping Stigma and Neglect–People with Disabilities in Sierra Leone. The International Bank of Reconstruction, World Bank.

The policy abstract (working paper) is about people with disabilities (PWD) in Sierra Leone, Africa. It has a total of five chapters. In chapter one the authors present an overview of the Sierra Leone scenario of the disabled in Sierra Leone. They diagnose the situation in terms of nature and scale. Policy/measures taken so far and proposed further options for the government and development partners in dealing with the problem are also discussed.

In chapter two the diagnosis of the situation of the disabled, ill health and poverty is presented. The relationship between poverty, the war and the problems of the disabled are discussed. The 2002 war impacts are the main cause of disabilities in Sierra Leone, a country which is also the poorest in the third world country and statistics for the affected are well presented. An emphasis on how the census tended to underestimate the numbers of disabled is given. A comparison with other countries with the same problem of under estimation is made.

Analysis of types, causes, and gender aspects of the disabled are discussed, where war related disabilities account for 10% followed by health services inadequacies related disabilities (75%). The role of education and health and education policies in trapping off people from disabilities and participation of disabilities in these services is discussed.

The economic activities that are determined to by transportation accessibility, the disabled are well discussed in this chapter.

Chapter three exposes the reader to policy efforts in supporting PWD. The framework and SL constitutions and their commitment to PWD is discussed. Other strategies like the PRSP (2005/7) National Council for PWD, National Policy paper on PWD (2004/5), Legal framework as well as UN convention (CRPD) with their commitment on PWD are well discussed and their shortcomings in implementation presented.

In chapter four, public and private partnerships support of PWD is discussed. The financing from NGOs, charitable organizations, ministries, social security insurance Trust Supports and achievements and good practices are disclosed by the authors. Challenges are such as funding, through government allocation, technical capacity, inadequate health, education strategies and lack of political will.

Chapter five deals with possible solutions. It is recommended that, private/public partnership finance and sectoral approach in planning and finance, knowledge building, analysis, strengthening legal and institutional framework and donor financing be employed.

The book clearly focuses on the situation of disabled persons in Sierra Leone and suggests means of alleviating the situation. The flow of arguments, counterarguments and their answers are well presented. Policy measures to the problem analysis and prioritization into long, medium and short term measures is another credit to the authors.

Despite the good presentation made, the topic of the policy note (titled the booklet) is not well focused in the policy brief.

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Nicolai, SUSAN (2009): Opportunities for Change – Education Innovation and Reform During and After Conflict. Paris, France: International Institute for Educational Planning and UNESCO. ISBN: 978-92-803-1328-4. Pages 262 (Paperback); Price: Not given.

The book under review is an edited volume with sixteen articles in total. Contributors were drawn from different educational background. The book posits that across the world, people are increasingly suffering from political instability, endemic violence, war and forced migration, while women and children have been displaced, their safety, health, nutrition and education are jeopardized; many families have been scattered as a result of the prevalence of conflict. Since conflict can be seen as a catalyst to change, violence, war and conflict have excruciating effect on education. The book showcases education in the period of emergencies and reconstruction, as an instrument of change and how it has proved to be a potent contributor to an enduring solution in rehabilitating the war-displaced people and restoring normalcy after conflict. Various attempts at education for transformation are also discussed.

The first chapter of the book presents an excellent examination of how armed conflict creates an unsavoury experience for many people in different parts of the world and how it also creates an opportunity for education innovation and reform. Post-conflict opens latitude for government and other stakeholders to work in partnership and reposition social institutions, especially education.

Chapter two describes how conflicts bring about change. Among such changes is that it open windows of opportunity for education innovation and reform. Education reform in post-crisis society began with Japan and Germany after the Second World War. However, large scale reforms in contemporary era are now taking place in countries like Cambodia, Kosovo, Afghanistan and Angola, among others. Apart from conflicts, conventional social dynamics like economic transition and globalization may also bring about education reforms. The chapter identified various social factors instrumental to the fecundity of education reform during periods of conflict and recovery. The chapter concluded by stressing that the objective of educational change should be the desire to modernize and improve the structure, quality and content of the educational system.

Chapter three reveals the catastrophic and devastating impact of conflict. Social actors during the period of recovery usually blaze the trial to reposition the educational system. Such reforms are commonly broad, all encompassing and very in-depth. Some factors identified to be responsible for the educational reforms include popular enthusiasm for education after conflict, improving educational access through the abolition of school fees, renewed interest in girl-child education, curriculum review etc.

Chapter four presents conflict as opening windows of opportunity for education reform in post-conflict environment; constraints such as tensions between ethnic minority groups, divisive language policies and volatile nature of the political environment as were identified as riddles towards the realization of this goal. The chapter submits that tensions between ethnic groups can be solved by providing armed escorts, increasing patrols around school and/or using distance education. On the other hand, plurality of languages can be resolved by creating interlink between mother tongue and national identity.

Chapter five provides a narration of conflicts from the positive and negative sides that can move a nation ahead. An ideal nation is characterized by peaceful mechanism of education change and development hence, the establishment of programme like Education For All (EFA), The Fast Track Initiative (FTI) are also useful in bringing about change in a society other than conflicts. Change in education cannot be achieved except bodies like Amnesty International and Human Rights Watch are ready for durable investment in education. Thus, teachers should constantly be trained, regular salaries be paid because they are key contributors to the development of education.

Chapter six highlights the extent to which partnerships are effective and examines the challenges involved in delivering aids in these countries. Challenges like emergency donor "feeding frenzy" where countries in crisis are crowded with several offers of help which are mostly not redeemed. The politicization of aids, where countries that are important to international security agendas are given priority over countries that are of little or no importance to politics. These challenges override the real meaning of partnership, which involve the relationships between organizations that addresses the concepts of fostering social agendas and monitoring accountability. Positive issues were discovered to help in delivering effective partnership aids to poorer countries. The need to build firmer partnerships is also discussed.

Chapter seven discusses the establishment of a suitable education model that complements the educational needs of communities during the Taliban regime. The community based education model originated as a result long distance. The success of this model is centred on the dedication and commitment of community members. The ownership of the school by community, shadow alignments, education quality, coordinated NGO advocacy, and protection reasons all contribute to the adoption and success of the community-based schooling model.

Chapter eight talks about Norwegian Refugee Council (NRC), an humanitarian non-governmental organization. Angola was identified as the first country in which NRC served as a hand-on-actor in the educational sector. The overall goal of NRC as an education supporter is to help create opportunities for children and youth beyond the normal school starting age. The NRC made use of a model that involved specific contents and certain target groups which is the Teacher Emergency Package (TEP). This model helped in training teacher on participatory and child friendly methodology. It was also the highest hope of NRC that the TEP training and practice will remain in Angola's school system.

Chapter nine is a case study that traces the historical background of Cambodian primary education during the colonial era and presents it as education at its best. By 1970, the political atmosphere of the country was characterized by civil war. This caused a great setback in primary education administrations. Khmer Rouges compounded this problem by adopting a Maoist political philosophy during his regime, thus turning schools into shelters and feeding centres for forced agricultural labour. The post-conflict period of 1979 to 1991 witnessed a greater attention in improving the quality of the Cambodian primary education. Despite this, primary school enrolment was not at its highest, there were internal inefficiency and the recruitment of untrained primary school teachers. More sustainable development phase took off from 1979, it saw to the establishment of Priority Action Programme in year 2000 during which the government showed a great commitment in managing Cambodian primary education. It was a period of transition from donor to partnership and country ownership.

Chapter ten stresses the importance of conflict in restructuring the unaccepted situation in a given country. Southern Sudan was a case in point, a country that was marginalized by the Colonial administration. It was characterized by political turbulence and many years of conflict, the major reason being the inequalities of educational opportunities between the North and the South. Transition and reconstruction period emerged after many years of conflict. In 1994, the educational system of Southern Sudan took a new positive shape through the efforts of Sudan People's Liberation Movement (SPLM).

Chapter eleven emphasizes the impact that the political atmosphere of a country can have on carrying out meaningful reforms and development of education and the consequential effect in jeopardizing the future growth and development of the country. Kosovo with her complex political history, where ethnic clashes was the order of the day was analyzed. Governance became almost impossible as social relations collapsed owing to widespread violence. The University of Mitrovica, North of Kosovo was used as a case study because its history pointed out the impact, a country's political environment can have on higher education. Attempts were made towards educational reforms but were met with constraints at the local and national levels.

Chapter twelve focuses on the struggle of over-desegregation and languages of instruction in African schools in South Africa. The issue centres on the adoption of a single medium of language of instruction as opposed to dual medium. The African National Congress as the ruling party believed that the adoption of a single medium will be detrimental to the blacks, while the blacks were bent on ignoring the language of their former oppressor. As a way of resolving issue, they resort in lawsuit, which brought a handful measure of expected changes. The government's over reliance on the lawsuit made people lose confidence in the rule of law. However, it is glaring that in embarking on educational reforms, government should try to adopt consensus-building approach.

Chapter thirteen captures decade of Belgrade - Albanian civil war, which ended in 1999, where students, teachers and school administrators were repressed, intimidated and beaten by the police. There were virtually no in-service trainings for teachers and very little awareness of emerging learner-centered approaches. To develop a new education system, catch-up classes were organized in tents schools. Also, in-service training for teachers, rebuilding, refurnishing and re-equipping of schools were adopted. Result of these clearly illuminated the significant impact of the training on the classroom and the school.

Chapter fourteen showcases the ordeal of teachers as victims of political violence in Colombia, especially during periods of conflicts and civil wars. The armed actors are perpetrators of serious violence and teachers are the target. The government attempts to implement austere resistant measures. The military and police set up camps in schools; teachers were denied the courage to challenge situations. The paramilitary extorted, blackmail murdered and violated human rights in Colombia. To curb these, certain strategies to manage violence were evolved. Part of these is that the Inter-American Human Rights Court (IAHRO) has the power to sanction any agency, provide the special protection and assistance packages for teachers.

Chapter fifteen encapsulates peace education in reconciliation processes in an unstable violent situation in Sri Lanka and Uganda. In an effort to lay the foundation for lasting peace, two approaches to peace education evolved; the integrative and additive approaches. The former offers students the opportunity to reflect critically upon peace and existing inequalities while the latter is where classes remain separate from the existing curriculum.

These are needed to integrate concepts of national harmony, democratic principles and non-violent conflict resolution skills to curriculum. In Uganda, war, negative deconstructive attitudes, and practices in education and dearth of infrastructure including notable lack of trained teachers became obstacles to social stability and unification. To achieve peace, value-oriented education, political education, religion, democratic culture in schools, peace education programme, and civil peace service project were introduced, which involved training of adolescents and adults.

Chapter sixteen, talks about the political dimension of history and sheds light on the difficulties concerning its teaching in post-conflict society of Rwanda. Rwanda educational system was characterized by injustice, discrimination and aversion of history that served the people in power. The education system suffered during the genocide as schools closed abruptly with the outbreak of violence, while teachers and children were killed. As part of the government policies to stop the situation, goals set at worldwide conventions were integrated into Rwanda's strategy for the educational sector. The absence of a curriculum represents a threat to the process of unity and reconciliation and risks a potential return to conflict. To avoid this, 60 teachers were trained to re-train others. The Ministry of Education released a lifeskills handbook for primary school teachers, while the Department of History at the Kigali Institute of Education organized a workshop on teaching Rwanda history. To achieve positive change, the political dimension of history, developing and teaching a new history curriculum were emphasized.

This collection of articles is definitely a step forward in comprehending the much talked education innovation and reform during and after conflict, as well as how best education can be applied to reform, rehabilitates and catapults development. The editors deserve congratulations for this meticulous work. It is certainly a monumental piece of work in understanding the role of education as a weapon of change in conflict-afflicted societies. It has also provided a stimulating reading for all those who are interested in the pre-and post conflict educational situations and serves as additional reference for scholars of peace education. The book will be a prized possession for the libraries and individuals. No one in education can actually afford to ignore it.

As far as methodology is concerned, the use of case studies reflecting and discussing situations in conflict-afflicted areas is commendable. The diction used by the authors is straightforward. The unfussiness of the language makes it very painless to comprehend what the writer is saying. How the authors have cleverly interwoven their ideas together, having a little highly foregrounded in every chapter with series of sub-titles is commendable. This ploy brings about fluency and clarity to the book.

The editor being a senior specialist on education crisis makes the account of the book to be dependable and gives the account high degree of aptness. However, the readers' task will be made easier if a short introduction could be provided at the beginning of chapters 1 to 5 in a modified and precise form as we have in chapters 6 to 16, while at the end of the book, a chapter should be devoted to a summary of the whole book to create a kind reflection and reminiscence of what the readers have read.

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Garcia Marito, Pence Alan, and Evans Judith L. (2008): Africa's Future, Africa's Challenge – Early Childhood Care and Education in Sub-Saharan Africa. Directions in Development: Human Development. Washington DC: World Bank, pp. 525; ISBN: 978-0-8213-6886-2.

Sub-Saharan Africa is commonly known as a region that spells disease and despair. This region comprising 48 of the 54 African countries has a population of 130 million children below the age of 6 years. Estimates suggest that 27 million children are born every year and 4.7 million children die every year. The birth rates and death rates are perpetually high as compared to any part of the world. The under-5 mortality of 163 per 1,000 is twice that of the rest of the Developing world and 30 times that of the Industrialized Countries (UNICEF, 2006). Of the children who are born, 65 per cent will experience poverty, 14 million will be orphans affected by HIV/AIDS (directly and within their families) and one-third will experience exclusion because of their gender or ethnicity. These are the statistics that are typically reported for Africa.

What is lesser known about SSA, however, is the rapid pace of children's enrolment in grade I and the increasing number of children who are graduating from primary school. Moreover, the ever-rising number of children who have access to a pre-primary programme and a wide variety of programmes that are being created to meet multiple needs in a variety of contexts are also some of the stories that remain largely unnoticed.

Viewed in the light of these facts, this volume makes a unique contribution as it seeks a balance by describing the challenges being faced in the region and highlighting the developments that are taking place. The book forms an interesting reading as it includes voices of specialists and generalists, of those from international and local organizations, from academia and the field. It seeks a diversity of views thus capturing the diversity and complexity which is the reality of SSA today.

Early Childhood Care and Development in Sub-Saharan Africa is the focus of the book. It forms a very useful resource on the subject as it covers a wide array of issues in ECD such as the rationale for investment in ECD; policy development and programming in Africa; evaluation and research; and describing challenges as well as charting future agenda. Given the impact of historical developments that began with the Convention on the Rights of the Child being formally adopted by the UN General Assembly in 1989, young children have emerged as social entities in their own right. Further developments through World Conference on Education for All (1990) and a follow-up conference at Dakar, Senegal (2000) have brought young children on the education agenda and positioned ECD as a significant area of concern for all countries. Further impetus came in the form of UNESCO's (2006) EFA Global Monitoring report, Strong Foundations, which cautions that the EFA and Millennium Development Goals cannot be achieved without significant investment in young children's well-being.

Global events mentioned above have had an impact in Africa just as these have affected the rest of the world. Such an impact was witnessed in Africa in the form of several major happenings. Followed by a continent-wide African International Conference on Early Childhood Development held in 1999, other conferences were held in Asmara, Eriterea (2002) and Accra, Ghana (2005). Asmara Declaration on ECD and Accra Communique have been the famous outcomes of these events. ECD was also selected as a focal theme for the

Eighth ADEA Biennial meeting of the Ministries of Education held in Libreville, Gabon in 2006. These events have helped move ECD as a central concern for many countries in Africa. This book is pitched as a step to sustain the momentum generated by the above endeavours and seeks to fill the gap in availability of research literature on children within and about Africa.

First of the six sections in the book namely Contexts, leads with an overview of the state of young children in Sub-Saharan Africa and provides a comparison with the current status of other regions of the world. Chapter 1 gives a review of childhood indicators on poverty, demography, nutrition, health, and early education before children enter school. Using 2003 SSA data from the World Bank's World Development Indicators database, authors have computed child welfare index. A graphic presentation on page 16 showing GDP per capita and child welfare index for different countries shows that the higher national income does not necessarily translate into better conditions for children.

Chapter 2 describes in detail how ECD has become positioned as a national priority in several African countries, but highlights the fact that there is still a long way to go. Some of the key actions that are needed to accelerate ECD in Africa have also been culled out in the chapter. These include: need to demonstrate political will, vision and courage; to promote advocacy, social mobilization and information on ECD; to conduct research for ECD promotion; to build and strengthen technical capacity for ECD policy and implementation; to ensure effective links of ECD programmes with major national development policies and frameworks; and invest in and allocate adequate resources to ECD.

In chapter 3, a relationship between investments in ECD and the potential for a country to achieve the child-related Millennium Development Goals/EFA goals has been explored. The analysis indicates that with the current levels of pre-school provision across SSA countries, the region probably cannot meet MDG and EFA goals by 2015. Adopting education policies that include ECCD programmes may bring about some positive change but that requires a greater political will. As the education budgets in majority of the African countries are not likely to increase substantially, the need of the hour is to allocate a proportion of the current budget to support quality pre-school programmes. Chapter 4 describes the neurological development and argues that a healthy brain development is critical to the realization of human potential. Brain development sets trajectories for learning behaviour and emotions that last a lifetime and that cannot be overcome later by the formal education system. Chapter 5 provides an overview of the current HIV/AIDS pandemic in Africa and highlights the implications of the same for young children.

Section 2 has three chapters that deal with socio-historical contexts. Chapter 6 gives a historical perspective on ECD in Africa and describes ECD in the Colonial era giving examples from British Colonial Africa. European pre-school initiatives including infant school, kindergarten and nursery school have been compared with the indigenous child-rearing practices and post-independence developments in Kenya and other nations. Chapter 7 argues that colonization practices remain a key part of the international ECD dynamics in Africa today, ignoring and threatening indigenous approaches to early childhood that have deep and complex histories based on 'other' understandings of child and social development. In chapter 8, an important but usually neglected area, i.e., the role of father in the care and development of young children has been discussed both from the international literature and from recent studies in South Africa.

Policy development and programming have been dealt with in sections 3 and 4. Chapter 9 looks at the three case studies done in 2001 on ECD policy development in Ghana, Mauritius, and Namibia, while chapter 10 describes participatory ECD policy planning in Francophone West Africa giving lessons learned about policy planning in Africa and presenting future policy challenges. The programmes describe a wide range of approaches to support young children and their families in SSA. Frameworks for understanding and promoting early development are discussed in chapter 11 followed by case information from The Gambia, Kenya, and South Africa. Chapter 12 uses a case description approach to look more closely at the emergence of a pre-primary year of education in Kenya, Lesotho, South Africa and Zimbabwe. Chapter 13 describes a multifaceted approach to special needs care from Mauritius and chapter 14 considers approaches to parent support programmes that are evolving in Malawi, Nigeria, and Uganda as a result of the changing African family. An extensive description of HIV/AIDS initiatives from various parts of SSA is included in chapter 15, while chapter 16 discusses the importance and ways of promoting children's well-being in conflict and post-conflict situations, with a focus on Angola. The section concludes with a discussion of the importance of strategic communication initiatives for ECD, with a case study based on project experience in Uganda (Chapter 17).

The most convincing arguments in favour of ECD have been often based on the empirical evidence drawn from studying the impact of ECD programmes on development of children and their families. While an ever-increasing body of research is available about such an impact in the United States and Europe, there is only limited information available about children in Africa. Section 5 of this book focusing on Evaluations and Research describes in detail five research pieces that bring about the impact of ECD programmes in SSA. These researches detailed out in chapter 18 through chapter 22 make a valuable contribution for two reasons. Firstly, the impact of nutrition and ECD interventions has been studied across different facets of development of children and their families ranging from cognitive development, school readiness, maternal employment, school participation and family-care practices. The second interesting feature that gives a value addition to this research evidence is the use of a variety of research approaches. For example, an experimental approach used to assess the impact of growth monitoring and promotion on nutrition and ECD in Uganda, an approach of non-parametric score matching to assess the effects of longer exposure to growth promotion programmes on child nutrition in Madagascar, use of house-hold survey data in Kenya to study women's participation and a quasi-experimental design to assess the impact of Madarasa-based ECD on primary school participation in Kenya, Tanzania and Uganda. A Qualitative and critical-theories approach is used to better understand the local care provision practices in Kenya. The last chapter in this section describes an evaluation of the Integrated Management of Childhood Illness community-based programmes being implemented in 18 African countries focusing on four countries that include Malawi, South Africa, Tanzania and Uganda.

Section 6 entitled Challenges and Ways Forward consists of chapters 23 and 24. The former describes the cost and financing of alternate approaches to ECD in SSA and the latter being the last chapter concludes the book with a description of an interrelated set of ECD leadership-promotion and capacity-building activities which have been undertaken since 1995 and continue till date in the region.

Overall, the book is an incomparable resource that has examined various facets of ECD in SSA in a comprehensive manner. It presents a judicious mix of hope and desolation and

describes multiple stories with multiple perspectives blending local and global influences on the development of ECD in SSA. It is rare to find a volume of this kind specific for a country or a region on the difficult subject areas of early childhood development. Similar exercises undertaken for major countries/regions could generate a useful base for planning and management of ECD and can help stakeholders learn from others' experiences in moving forward to achieve global goals set for ECCE.

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Gautam BISWAS, K.L. CHOPRA, C.S. JHA and D.V. SINGH: Profile of Engineering Education in India: Status, Concern and Recommendations. New Delhi: Indian National Academy of Engineering/Narosa Publishing House, 2010, pp. 236. ISBN: 978 81 8487 061 9

Andreas BLOM and Jannette CHEONG (eds.): Governance of Technical Education in India: Key Issues, Principles, and Case Studies. World Bank Working Paper No. 190, Washington DC: World Bank, 2010, pp. 85 (Paperback) ISBN: 978 0 8213 8314 4

Higher technical education – mainly engineering education and secondly management education, has experienced very rapid growth in the recent years in India. In fact, its pace has outpaced the growth of all other areas of higher education. There are more than 2400 engineering colleges in the country turning out more than 6 lakh engineers every year. However, the system faces serious challenges in the form of quality, equity, regional imbalances, over-burdened affiliating system, faculty shortages, changing values, decline in ethical standards, etc. There are very few books focusing on engineering or technical education in the country.

The book by Biswas et al., sponsored by the Indian National Academy of Engineering presents a serious overview of the problems of engineering education in India. The book of 15 chapters individually authored by the four distinguished experts in engineering education covers a wide range of issues – starting from historical glimpses of the growth of technical education in the country tracing developments from the pre-independence period in India to the contemporary international scene. They also dwell at length on issues such as ethics in engineering education, curriculum, teaching-learning processes, research, interaction with industry, evaluation mechanisms, innovations, property rights, faculty development etc.

Keeping in view the national and international development factors and development needs, Biswas et al present a good set of recommendations for the improvement of engineering education in the country. Their suggestions include setting up of a essential common structure and features all over the country for engineering education, curricular reforms including credit based academic system, strengthening of R&D activities, close interaction with industry, etc. The large expansion that has taken place in engineering education got confined to under-graduate level education. Post graduate education and research programmes have been neglected. It is necessary to expand post graduate education and research many fold to solve the problem of faculty shortage, as Biswas rightly

argues. Expansion of post graduate education and research would be critical for development of strong engineering education in the country.

Many important issues are kept outside the scope of the book. Secondly, it would have been more useful had it been more data-based (like the report prepared by Rangan Banerjee and Vinayak Muley, *Engineering Education in India.* Mumbai: Indian Institute of Technology, 2007, unpublished). There is a huge amount of data that need to be analysed, which would shed important insights into several dimensions relating to engineering education. But for C.S. Jha in Chapter 3 on 'Challenges Faced by Indian Engineering Education,' others have hardly used any empirical data. Nevertheless, the book as whole presents a deep understanding of the issues involved in engineering education.

The growth in technical education in India is also characterised by a phenomenal increase in private institutions, which account for more than 85 per cent of all technical institutions in the country. The rapid growth in private institutions is also associated with inefficient and unfair practices. The need for proper governance and measures to check unfair practices is widely recognised. World Bank funded technical education in India under a project called TEQIP (Technical Education Quality Improvement Program), and hence obliviously is interested in issues relating to technical education in the country. The slim paper of the World Bank, the other book under review, is an outcome of the meeting of a few key actors from industry and government, arranged by Learning Forum, convened under the aegis of the TEQIP by the NASSCOM. It is concerned with governance, but it refuses to recognise the fact that the problem of governance has assumed alarming proportions with the mushrooming of private institutions.

The paper opens with listing of a few select key issues in governance relating to legal base for higher education development, professional development of faculty, industry-academic collaboration etc. The scope of the book, in which seven experts and four representatives of state government in India have participated, is in a sense, very narrow. There are many more important issues relating to governance of higher education – general/technical intuitions in the country, than what are covered here. The paper also presents brief case studies of four states in India, viz., Andhra Pradesh, Haryana, Karnataka and West Bengal, and also a few national and international case studies on India, China, Japan, Korea, UK, USA and Europe. The Indian state studies provide some quantitative data on the growth of the colleges and state policies in higher education. While Andhra Pradesh, Karnataka and Haryana experienced very high growth in engineering and other technical colleges, the growth in West Bengal has been very modest. The case studies of Indian states and also of other countries are very brief, descriptive and informative and there is no discussion or critical analysis of the policies. However, an attempt is made to draw lessons for others and they are presented in the form of a few bullets. They are also very general, like 'improve the access to technical education, faculty development and empowerment is vital; interaction with industry is crucial, international linkages create visibility, etc. The paper pleads for a common legal framework, common quality assurance policies and standards, and common model of governance which do not differentiate between government/ government-funded and private institutions.

The country level case studies on other countries, including one on US state of Virginia focussed more on issues relating to accountability, autonomy and governance. While the experience of some of these countries is valuable to draw lessons for others, the overall description is very brief, mostly presented in bullet format. One would expect a much

thorough and in-depth study on governance of technical education in India. Governance is indeed a complex issue. It requires a detailed understanding of the institutions, their functioning and of the state. As Chopra argues in the other book under review, the growing concerns for value for money, efficiency, excellence, greater access, quality assurance, competitiveness, accountability, etc., have altered the way engineering education institutions have to be governed. Given the rapid changes, the need to forge industry-institution collaborations, and given the role of the state, it is difficult to conceive that institutions of higher education could become "institutes of academics, for academics, and by academics," however desirable it be. There is need to develop a model of governance that provides for nearly full academic autonomy, and a reasonably high degree of, if not full, administrative and financial autonomy with built-in measures for checks and balances and accountability.

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