Title:
Elementary Education in two Indian States: Comparative Analysis of Literacy in Rural Districts of Rajasthan and Himachal Pradesh

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This thesis is being submitted in total fulfilment of the degree
Abstract

The thesis is about elementary education in rural districts of the Indian states of Himachal Pradesh and Rajasthan. The main questions addressed are:

- How successful are the state education systems in rural areas of Himachal Pradesh and Rajasthan in providing universal elementary education that achieves at least basic levels of literacy?
- Have the state education systems in rural areas of the two states moved beyond attainment of basic literacy to aspire to a broader, quality, education?
- What are the factors that account for the different levels of outcomes of the elementary state education systems in these two states?
- What do girls themselves in the study regions report about factors that affect their education?

In setting the context for examining these questions, the thesis provides a short historical survey of Indian education and a detailed, but concise, summary of contemporary elementary education in India. As literacy is often seen as the prime purpose of elementary education, a chapter is devoted to examining contrasting view of ‘literacy’, as well as factors to do with its benefits and measurement. Conceptual models are outlined, contrasting simplistic notions of the ways schools are perceived to operate with more complex ones better representing factors that affect students education. Emphasis is placed on the distinction between the provision of education (via access to schools staffed by teachers) and educational outcomes as assessed by the capabilities of students emerging from schools. Extensive summaries of the fieldwork in each state are reported and discussed. The fieldwork summaries are based on observations in 40 schools and interviews with teachers, students and parents - about 120 in total. Data about education provision and student achievement in the study districts obtained from government and NGO sources is compared with that obtained from fieldwork. The differences between Rajasthan and Himachal Pradesh reported in government and NGO sources were confirmed by fieldwork observations, which in fact found the extent of the differences even greater. Observations in operating classrooms showed a stark contrast between the states with negligible attempt at teaching in Rajasthan schools. Interviews with teachers revealed very different attitudes from Rajasthan and Himachal teachers towards the education of children in their classes. Interviews with parents and students confirmed the very different experiences of schooling of students in the two states.

The different elementary education outcomes in Himachal Pradesh and Rajasthan are not the result of factors that obtain maximum government attention: infrastructure, facilities and incentives (concrete buildings, drinking water, uniforms, mid-day meal etc). The assumption that that student enrolment and attendance automatically lead to education is incorrect. The most important factor in improving education is the role of teachers, in respect of which, apart from teacher presence in schools, pedagogical knowledge, ability to engage and willingness to teach is required.
**Declaration**

- the thesis comprises only my original work towards a Doctoral Degree (Research).
- due acknowledgement has been made in the text to all other material used.
- the thesis is fewer than the maximum word limit in length, exclusive of tables, maps, bibliographies and appendices as approved by the Research Higher Degrees Committee.

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Signature: 

Date: 30th June 2015

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Introduction

This research is about state school elementary education in two north Indian states: Rajasthan and Himachal Pradesh. It examines differences in education in the two states and suggests some of their origins. As part of that examination the thesis looks at the history of education in India and the situation at present. As a prime purpose of elementary education is commonly considered to be the achievement of literacy, the thesis examines the meanings of that term. As well as the data collected during fieldwork, use is made of quantitative data available from government sources and the NGO, Pratham. The fieldwork was conducted using qualitative methods of research: interviews, discussions and observation.

Although an organised system of education has a long history in India\(^1\), during ancient and medieval times it was largely a prerogative of the elite and with minimal or no access for women. Later, locally organised village schools became common in parts of the country (Scharfe 2002). When British influence in India became strong there were complex effects on education, driven by “civilizing”, proselytising and utilitarian motives. Church schools were established, some money provided for “native education” and a network of primary, secondary and tertiary institutions established. But the system of indigenous elementary education, semi-formal and village based, was destroyed (Whitehead 2005; Basu 1867; Basu 1971). By the time the British left India a large number of schools and universities existed, but illiteracy was widespread. The state of education in rural areas was abysmal and the education of women greatly lagged behind that of men (Kingdon 2007).

In 1947 India became independent with about twelve percent of its population regarded as ‘literate’ and the literacy rate for males about three times that for females (Planning Commission 2012 p15). Attaining total literacy has been a stated target in each successive five year plan since 1947. The latest census (2011) found a national literacy rate for the population aged seven and over of seventy three percent. Within the overall figure there is a sixteen percent gap between male and female literacy rates and large differences between regions (Census of India 2012b). A number of programs have been instituted during past decades to improve elementary education and literacy specifically. The latest is Sarva Shiksha Abhiyan (SSA), commenced in 2000-2001. Two obvious questions arise directly from the current pattern of literacy acquisition in India and the

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\(^1\) In institutions such as Gurukuls, Sanghas, Madrasas, and Makhtabs
five decades of effort at improvement: why the slow progress toward total literacy and why the continuing gender gap and large regional differences in literacy rates?

The explanations in each case are likely to be multi-factorial and involve factors that are inter-related. Attaining literacy has overwhelmingly been thought of, and planned through, the provision of elementary schooling. When considering literacy and Indian school education several further questions are fundamental: (i) what is meant by literacy, how is it assessed, how is it related to education? and (ii) the significance of the role played by educational facilities in raising literacy rates?

The former is important because it brings to attention the purpose of schooling, literacy and education. In any undertaking a lack of clarity about purpose is likely to result in confusion as to process and uncertainty about outcomes, and so it is for Indian schooling. The latter question is important because so much attention in India has been given to provision of educational facilities, often, it would seem, to the neglect of other factors, including assessment of outcomes.

The research reported in this thesis arose from considering these questions and aims to provide partial answers. Partial because, as well as each of the questions itself being complex, India is a very large and very diverse country. Literacy rates, school participation and gender disparity have often been most problematic in rural areas. Regions have differed greatly in the extent and rate of their improvement. The fieldwork reported here was conducted in the states of Himachal Pradesh and Rajasthan. The three districts selected in each were all rural and chosen as examples with high, medium and low literacy, according to government data.

The Thesis Problem

Jean Drèze and Amartya Sen in their book India, Development and Participation (2002) have given the example of Himachal Pradesh as a state which has made great progress in elementary education (Drèze et al. 2002 in particular Pp177-183); but much still needs to be unravelled to understand why this has occurred. What is special about Himachal Pradesh is that it appears to have broken the “literacy barrier” in the north of India. Northern India is frequently distinguished from southern India by its lack of demographic transition\(^2\), its low levels of economic development and low literacy. Change in Rajasthan has been slower, overall literacy remains low and differences based on gender and region much larger. Thus this thesis looks at two north Indian

\(^{2}\) the model that predicts a change from high birth rate and high death rate in pre-industrial societies to low birth rate and low death rate in industrialised ones (Chesnais 1992). For data comparing states on many social and economic indices see Drèze and Sen (2002 appendix: Table A3)
states – one of which appears to have now broken through this north-south divide.3

The main research questions

- How successful are the state education systems in rural areas of Himachal Pradesh and Rajasthan in providing universal elementary education that achieves at least basic levels of literacy?
- Have the state education systems in rural areas of the two states moved beyond attainment of basic literacy to aspire to a broader, quality, education?
- What are the factors that account for the different levels of outcomes of the elementary state education systems in these two states?
- What do girls themselves in the study regions report about factors that affect their education?

Subsidiary Question

To what extent have the targets and objectives4 of Sarva Shiksha Abhiyan (SSA), been achieved in the elementary education systems of each of these states; including those regarding pedagogy and equity5?

The significance of the research and reasons for choosing these two states are set out in detail in chapter 1.

While this research is in part concerned with impact of a program, SSA, which targets ‘education’ it gives considerable attention to ‘literacy’. Education is a concept that focuses on the process of learning by which an individual develops the capabilities to become a responsible member of society, including the acquisition of basic skills such as reading, writing and numeracy. John Dewey wrote of education as being preparation

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3 Another north-south division used in discussing India is the “Hindi Belt”, encompassing the states of Bihar, Uttar Pradesh, Madhya Pradesh, Haryana, Rajasthan, Himachal Pradesh, Uttarakhand, Chhattisgarh and Jharkhand. With the exception for Himachal Pradesh, the Hindi Belt states are relatively more backward, on a range of human development indices, than the rest of the country.

4 The 2000 document Sarva Shiksha Abhiyan: Programme for Universal Elementary Education in India (Department of Elementary Education and Literacy 2000) uses the term ‘objectives’ in setting out the program’s aims. These include some specific targets such as ensuring that “All children complete five years of primary schooling by 2007”.

5 As female literacy rates have been lower that those for males in almost all parts of India, SSA includes sub-programs directed specifically at improving girls education overall. Children from Scheduled Castes and Scheduled Tribes, boys and girls, have generally had below average school attendance and literacy. Girls from these groups are doubly disadvantaged. SSA includes provisions aimed at improving the education of children from Scheduled Castes and Scheduled Tribes.
to participate in a democratic society\(^6\), and of the necessity for citizens to be educated for democracy to function. He also wrote:

“The fundamental factors in the educative process are an immature, undeveloped being; and certain social aims, meanings, values incarnate in the matured experience of the adult. The educative process is the due interaction of these forces” (Dewey 1902 p2).

Education can be both formal and informal - the former occurring within the structure of schools, colleges and universities and the latter via the diverse interactions an individual has with their physical and social environment.

Unfortunately, many policy documents from governments and other agencies use the words ‘education’ and ‘literacy’ as if they are interchangeable. This researcher views ‘education’ in a sense similar to Dewey’s. It includes socialisation and gaining the necessary knowledge and skills so that the immature child becomes a mature adult, capable of participating in a democratic society (Dewey 1916). In this thesis, studying the formal aspects of education, as impacted by SSA, the researcher will take education within school to mean *all* the various processes that occur inside primary schools\(^7\), as it is the totality of what a child experiences that contributes to their *education* as Dewey used the term. The term ‘literacy’ she takes at its most basic to mean ‘being able to read and write’ though ‘being literate’ also encompasses what can be done with those skills. Assessing students’ literacy should be, in principle, a straightforward matter, assessing the nature of their ‘education’ in Dewey’s sense is not. The researcher’s opinion is that a report on schooling in these two states would be impoverished were it to ignore “education” in Dewey’s sense just because of the difficulty in quantifying it. Observation, discussion and reflection will lead to description of the *nature of students’ education* though, necessarily, not to a numerical measure.

**Why this Research?**

One reason for this research was to critically assess the achievements and shortcomings of elementary education in India - to check at ground level the picture conveyed by statistics and reports against findings based on original field research in Himachal Pradesh and Rajasthan. These states have received similar support and have

\(^6\) Given the range of democracies (e.g. Ancient Athens, slave based) and educated societies with political systems that don’t meet Dewey’s notion of democracy (China) the education↔democracy connection is more elusive than Dewey’s idea suggests.

\(^7\) Thus more than the formal, ‘written’, curriculum: the extended, *intended*, experiences advocated for schooling by Dewey (1902; Department of Elementary Education and Literacy 2000; 1916) and the (often unplanned and unintended) ‘hidden curriculum’ documented in detail by Jackson (1966) and now an accepted element in attempts to understand schooling.
implemented the same central government\textsuperscript{8} programs but, though both are in Northern India\textsuperscript{9}, have markedly different educational outcomes. This is striking as, at independence, what is now Himachal Pradesh started with a lower literacy rate than that of Rajasthan. This thesis seeks to explain the reasons/factors behind the differences between the two states. The issue of “literacy” is also problematized and discussed as it is central to the government programs on education. Literacy is sometimes taken as the purpose of elementary education and where a broader view of education does exist literacy is often taken as its ‘proxy’ – as if assessing literacy measures ‘education’. Thus notions of what literacy is and how it is measured are important in assessing the performance of a system of elementary education. This thesis gives attention to the cultural-educational debate as to what constitutes literacy and to the specific Indian questions: the criteria that are used to measure it and the reliability of those measurements. The significance of these can be gauged from the researcher’s finding that the practical meaning given to ‘literacy’ by teachers varied across states. For example - in West Bengal it was the ability to recognise and write the first letter of one’s name; in Rajasthan the abilities to write one’s name, to be street smart and to “behave rightly in society” whereas in Himachal Pradesh it was the ability to comprehend written text and write a paragraph.

More meaningful that the binary categorisation as literate/illiterate is an assessment of the actual literacy capabilities of students, long given scant attention in India but increasing a subject of interest and comparison in the increasingly competitive globalised environment.

Such an interest in the outcomes of schooling, when pursued to seek improvement, leads to interest in finding the factors that result in one school’s students gaining high level capabilities while another’s do not. There has been a tendency in India to expect that simply being in school will make a student literate and educated – a ‘black box’ view of schooling. In this vein the government of India, through SSA, has recently poured large sums of money into school education to provide infrastructure and incentives (e.g. school meals, student uniforms) with the aim of improving enrolment,

\textsuperscript{8} India, being a federation, has a national government with responsibility for defence, foreign affairs and a large range of domestic issues; as well as twenty-nine state governments. The national government is usually referred to as the ‘Union government’ or the ‘central government’. The terms are used interchangeably.

\textsuperscript{9} “Northern India” has several connotations: colloquially those Hindi speaking areas in the north contrasted with the non-Hindi south; geographically the states Haryana, Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, Punjab and Uttarakhand - not including Rajasthan (which in this classification is western together with Gujarat and Maharashtra); culturally the states Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir, Uttrakhand, and Rajasthan (Ministry of Culture 2014).
retention and literacy rates. But many states, including Rajasthan, continue to fail to achieve even basic literacy targets.

Within the same ‘black box’ notion of schooling government statistics provide figures on literacy, number of toilets, drinking water facilities etc. but little data showing what students can actually do. Pratham, an NGO, was established in Mumbai in 1994 as a Charitable Trust with support from Mumbai Municipal Corporation, UNICEF and individuals was the first to undertake the assessment of student capabilities on a large scale. This arose from a desire to measure the effectiveness of their own initial programs aimed at improving literacy among children in Mumbai’s informal settlements. To do this Pratham staff developed simple tools to assess reading skills and since 2005 have published an Annual Status of Education Report (ASER) based on work with a large student sample and detailing the performance of students in rural primary schools (ASER Centre 2012). A seemingly more sophisticated approach is that of educational economics where studies examine elementary education in terms of ‘inputs’ and ‘outputs’ and use mathematical models to seek the crucial factor or factors related to ‘performance’, hence to target those factors as the basis for improved student achievement. Caste, family income, school facilities and infrastructure are among factors in these models; so too is the teacher - often as another binary input (present/not-present) or (working/not-working) but virtually never is the teachers’ complex role considered. Whether it is government data setting literacy rates along side facilities provision, Pratham’s basic assessment of performance or the conclusion of econometric models, honing in on the factors that will raise the achievement of Indian school students remains elusive.

There is little literature that discusses the views of teachers, students or parents on low achievement, the ability to meet targets, or possibilities for improvement. The researcher has attempted to reflect some of these opinions in this thesis. One strand in the analysis used in this thesis brings attention to the central role of the teacher in students’ education.

Following this introduction the thesis contains nine chapters.

Chapter 1, gives the background to this research. It sets out in greater detail the reasons for choosing Rajasthan and Himachal Pradesh and provides a statement as to the significance of the research. The chapter presents the conceptual framework that describes the way in which the researcher sees schools educating students, as well as how it appears that that relationship is conceived by government and bureaucracy.
Chapter 2, is about methodology. It deals with the way the research was conducted, where it was conducted and why it was conducted in the ways chosen.

Chapter 3, is an overview of contemporary Indian school education and its problems. It examines the elementary education system in India in connection with the laws supporting education, financing and governance of elementary education and the performance of the elementary education system in terms of teachers, infrastructure, enrolments, and quality issues impeding attainment of universal literacy.

Chapter 4, discusses the debate among scholars of language and education revolving around ‘literacy’ - what it means to say that someone is literate, how literacy is acquired and its consequences. The chapter also includes a critical examination of measures of literacy with particular attention to those used by government agencies in India as a major yardstick in determining education standards.

Chapter 5, presents a summary of fieldwork observations and other data collected in Rajasthan.

Chapter 6, presents a summary of fieldwork observations and other data collected in Himachal Pradesh.

Each chapter begins with a brief overview of the state but the bulk of each is a summary of observations and discussions condensed from field-notes and recordings. Sixty-three students, teachers and parents were interviewed in Rajasthan and sixty-five in Himachal Pradesh. When reporting those discussions the approach in these chapters has been to maintain, as far as possible, the actual words of the participants within the limitations imposed by translation (by the researcher) from Hindi, Bagri and Chambayali. A minority of the discussions were conducted in English.

Within each state there were some issues that occurred repeatedly in the discussions and these have been give appropriate weight when documenting comments in the thesis, without, it is hoped, being tiresomely repetitive. Discussions took place over several months and in many localities. Rather than report this chronologically, or by place, it has been organised into broad themes so that the major concerns of those taking part in discussions become apparent. These chapters also include observations made by the researcher about school facilities, the number of students and teachers present, as well as data gathered from teachers about their qualifications and experience.
Chapter 7, discusses the fieldwork data in the context of existing statistical information, from Pratham and government, on education in the two study states. The three sets of data - official, NGO, fieldwork - complement one another. While all report to some degree on provision of education resources (schools, facilities, teachers) and student achievement the emphasis differs. Official statistics are very detailed regarding resources but meagre on student achievement while NGO data detail student achievement (at least in a basic manner) as well as education resources, but for only a sample of schools. The fieldwork data provides a basic check on the credibility of both the resource and student achievement information from the other two sources but adds an extra dimension: information, opinions and attitudes from those directly involved in elementary education - the students and their parent and teachers. It is suggested that this provides the basis for a more nuanced understanding of what ails Indian elementary education than the assumptions drawn simply from statistics or the apparent certitude emerging from mathematical models.

Chapter 8, sets out the researcher’s conclusions along with comment on limitations of the research and suggestions for future studies.
Chapter 1  
Background to this research

Improving education in India has been a long and arduous process and, as everywhere, harder in rural areas. The education of girls is impeded by gender-specific issues, some common to most societies, and some particular to India. Girls’ education in rural regions is a major challenge. Despite targeted programs and large expenditure change has been slow. According to the 2011 census the literacy rate of scheduled castes (SC) was 66.1 percent and that of scheduled tribes (ST)\(^{10}\) was 59 percent as against the national average of 73 percent\(^{11}\). For rural females the rate was 57.9 percent (up from 46.1 percent in 2001) while that for urban females was 79.1 percent (Census of India 2012a). Within these sections there are sub-groups who experience multiple disadvantage (e.g. females in scheduled castes, rural females in scheduled tribes).

There are several ways one might go about seeking to understand the slow rate of progress in education and the persistence of substantial inequities between groups. One, on the macro level, is to see what might be learnt from comparisons between different societies, another, at the micro level, is to examine the factors that affect educational outcomes within schools and classrooms.

Among inter-country comparisons the differences between India and China in achieving universal elementary education (UEE) have frequently been noted e.g. by Rao and colleagues:

“In the last 50 years, China has made spectacular progress in universalising primary education, but India lags behind" (Rao et al. 2003 p155; Aggarwal 2001b; 2009).

China with a similarly sized population, lower literacy (and lower per capita GDP) than India at the time of India’s independence (1947) (Hannum 1999) has made more rapid progress. Literacy rates are high and the literacy gap in China between males and females has been almost eliminated (UNICEF 2011). Nicholas Lardy gives credit for this to China's compulsory primary education policy:

“China, like other rapidly growing economies in East Asia, has emphasized primary and secondary rather than tertiary education. As a result, literacy rates are unusually high for China’s level of per capita income. It has become a major factor facilitating productivity gains in their rapidly expanding sector of these economies in their early growth” (Lardy 1994).

\(^{10}\) Scheduled Caste – groups listed in schedules authorised by article 341 of the Constitution of India, first prepared in 1950 and amended many time since. In former common usage the term ‘untouchable’ and the current ‘dalit’ approximate ‘scheduled caste’.

\(^{11}\) Scheduled Tribe - groups listed in schedules authorised by article 342 of the Constitution of India, first prepared in 1950 and amended many time since. Common usage term: “adivasi”.

---

2001 Census figures were 54.69%, 47.10% and 64.8 % respectively
India, by contrast, directed as much as 30% of public education expenditure (central plus state governments) to the tertiary sector for nearly forty years beginning not long after independence (Mehrotra 2006 p267). This, at least partly, accounts for the very different ‘education pyramids’ of India and China noted by Kingdon:

Table 1 Education status of population aged 15+ at 2000

<table>
<thead>
<tr>
<th>Highest education - above secondary</th>
<th>India</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.7 %</td>
<td>3 %</td>
</tr>
<tr>
<td>Highest education - secondary</td>
<td>16 %</td>
<td>45 %</td>
</tr>
<tr>
<td>Highest education - primary</td>
<td>27 %</td>
<td>34 %</td>
</tr>
<tr>
<td>Illiterate</td>
<td>53 %</td>
<td>18 %</td>
</tr>
</tbody>
</table>

(Kingdon 2007 p180)

The educational status of a population, such as that shown in table 1, reflects the inputs to education (of which expenditure is one) over preceding decades - whatever recent changes there may have been in policy and financing the current literacy figures for India’s population reflect a legacy of past decades.

By 2000 the sectoral division of education expenditure had altered in India and was similar to that in China:

Table 2 Sectoral division of education expenditure, 1999

<table>
<thead>
<tr>
<th></th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
<th>Total education expenditure as % of all govt. expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>32.6 %</td>
<td>37.8 %</td>
<td>17.5 %</td>
<td>16.32 %</td>
</tr>
<tr>
<td>China</td>
<td>30.1 %</td>
<td>37.4 %</td>
<td>24 %</td>
<td>11.36 %</td>
</tr>
</tbody>
</table>

(UNESCO Institute of Statistics 2014a; UNESCO Institute of Statistics 2014b)

However, in the 15 years since 1999 the sectoral division of Indian education expenditure has again changed significantly: primary education’s share peaked at over 37% in 2000, remained fairly constant for seven years but declined to 23% by 2012, while the share to tertiary education increased steadily to about 37% in 2013 (UNESCO Institute of Statistics 2014a).

The financial input to education and the split between educational sectors is just one factor affecting literacy outcomes. The split between sectors is itself an indicator of

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12 Mehotra notes that the first five year plan (1951-'56) allocated almost half the education budget to the elementary sector and comments that had this been maintained the current poor state of primary schooling and associated low literacy may have been avoided. The large allocation to tertiary education arose following the need for skilled workers to implement the second five year plan’s strategy of priority development of heavy industry.

13 1999 is latest year for which UNESCO has data for both countries.

14 Sectoral percentages do not total 100 as there are other forms of education spending (e.g. pre-primary).

15 As China’s GDP is substantially greater than India’s its actual expenditure on education is larger, however when adjustment is made for the different price structures in the two countries by comparing expenditure in terms of purchasing power parity (PPP) a different picture is given. Kochhar and colleagues find that: “.. India spent substantially more in PPP adjusted dollars per student in tertiary education than China ….” (Kochhar et al. 2006 p5).
underlying priorities, and/or of the grasp of the factors that drive improvement, among decision makers. Establishing what provides the conditions for quality education is a complex issue. Funding is just one of the factors, and while the political system in China, with its high degree of centralised control facilitating policy implementation has played a significant role in the changes there, political ideology is not the rest of the story after finance either. Historical experience and cultural attitudes play their parts. Confucian attitudes influencing the value a society places on education (Lam et al. 2002) and students’ approach to learning (Rao 2002) are part of explanation for the educational achievements of a number of east Asian societies. Within the Indian context too there are ideological as well as cultural and historical differences between parts of the country. That ideology itself is not the dominant factor in educational outcomes is apparent when comparing two Indian states. In Kerala with a long history of communist rule (interspersed with rule by Congress) (Government of Kerala 2012) universal literacy was attained decades ago as part of the ‘Kerala model’\(^\text{16}\). However West Bengal, which experienced 34 years of unbroken Marxist rule (Bag 2011), continues to have a relatively low literacy rate.

**Reasons for choosing the states of Himachal Pradesh, Rajasthan**

The researcher wanted to work in a state that had not yet achieved universal elementary education but had made great progress toward achieving it. Literacy is frequently used as an indicator of educational performance. That measure shows very large variations in educational progress between regions in India and across socio-economic classes. Thus, the overall literacy rate in 2011 ranged from 64 percent in Bihar to 94 percent in Kerala (Census of India 2012a). It was thought that choosing states that, some decades ago, had had similarly low levels of literacy but where there appeared now to be significantly different levels might assist in identify factors that played a part in bringing about greater change in one state compared to the other. Other considerations were to select states that were linguistically and culturally not too distinct.

Mizoram and Himachal are the two states in which literacy has improved quickly, approaching the level in Kerala as shown in the following percentage literacy rates recorded in each census since 1951:-

| Table 3 Literacy rates (%) for Mizoram and Himachal Pradesh 1951 - 2011 |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Himachal | 8.0 | 21.3 | 32.0 | 42.5 | 63.9 | 76.5 | 83.8 |
| Mizoram | 31.1 | 44.0 | 53.8 | 59.9 | 82.3 | 88.8 | 91.6 |

(data source: Ministry of Finance Government of India 2012)

\(^{16}\) in the particular case of recent education achievement, Kerala’s was developed from a historically well developed system of schools as well as from the attributes of the “Kerala Model” - believed to have progressed public services generally in that state.
Himachal Pradesh was chosen as (a) there was a degree of social unrest in Mizoram that could disrupt fieldwork and (b) the researcher has linguistic and cultural affinities with Himachal that could assist when conducting fieldwork. Rajasthan which on the 2011 census has a low overall literacy rate and the lowest rate for females, was selected as the second state. Like Himachal Pradesh it is in north India and although the two states are not culturally identical they are both placed in the grouping “North India” by the Ministry of Culture.

Table 4 (below) and tables 6 & 7 on page 14, compiled from Indian census data of 2011, show literacy rates for the best and worst performing states together with data for the states chosen for the study. Indian census data for literacy is based on the definition “both ability to read and write in any language” and reported on the basis of self-assessment of that ability\textsuperscript{17}. The states chosen for the present research are both ones where literacy had been very low for a long time. But as the figures in table 3 showed, Himachal Pradesh has broken from that pattern. While Rajasthan still lags though the literacy rate has improved by over 200 percent since 1981.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Region</th>
<th>Persons</th>
<th>Males</th>
<th>Females</th>
<th>Literacy F:M ratio</th>
<th>Rank F:M ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>Bihar</td>
<td>63.82</td>
<td>73.39</td>
<td>53.33</td>
<td>0.73</td>
<td>26</td>
</tr>
<tr>
<td>26</td>
<td>Rajasthan</td>
<td>67.06</td>
<td>80.51</td>
<td>52.66</td>
<td>0.65</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>Himachal Pradesh</td>
<td>83.78</td>
<td>90.83</td>
<td>76.06</td>
<td>0.84</td>
<td>13</td>
</tr>
<tr>
<td>1</td>
<td>Kerala</td>
<td>93.91</td>
<td>96.02</td>
<td>91.98</td>
<td>0.96</td>
<td>1</td>
</tr>
</tbody>
</table>

For Rural Populations

<table>
<thead>
<tr>
<th>Rank</th>
<th>Region</th>
<th>Persons</th>
<th>Males</th>
<th>Females</th>
<th>Literacy F:M ratio</th>
<th>Rank F:M ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>Andhra Pradesh</td>
<td>61.14</td>
<td>70.24</td>
<td>52.05</td>
<td>0.74</td>
<td>20</td>
</tr>
<tr>
<td>25</td>
<td>Rajasthan</td>
<td>62.34</td>
<td>77.49</td>
<td>46.25</td>
<td>0.60</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>Himachal Pradesh</td>
<td>82.91</td>
<td>90.48</td>
<td>75.33</td>
<td>0.83</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>Kerala</td>
<td>92.92</td>
<td>95.25</td>
<td>90.74</td>
<td>0.95</td>
<td>2</td>
</tr>
</tbody>
</table>

Data Source: 2011 Census of India (Census of India 2012b)

More detailed information on the selected states is given in Table 5, in which large differentials are seen based on gender, rural/urban location and on caste. 2011 figures in bold, 2001 figures in parentheses.

\textsuperscript{17} Limitations of self-assessment for literacy rates are discussed in a later chapter as are measures of literacy more generally.
Table 5 Literacy data for Himachal Pradesh & Rajasthan

<table>
<thead>
<tr>
<th></th>
<th>Himachal Pradesh</th>
<th>Rajasthan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Districts</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>Population</td>
<td>6.8 million</td>
<td>68 million</td>
</tr>
<tr>
<td>Sex Ratio</td>
<td>972 (970)</td>
<td>933 (922)</td>
</tr>
<tr>
<td>Rural Population as proportion of total</td>
<td>90% (90%)</td>
<td>75% (78%)</td>
</tr>
<tr>
<td>Urban Population as proportion of total</td>
<td>10% (10%)</td>
<td>25% (22%)</td>
</tr>
<tr>
<td>Per capita net state domestic product</td>
<td>₹75,000</td>
<td>₹47,500</td>
</tr>
<tr>
<td>Urban literacy rate, whole population</td>
<td>91% (89%)</td>
<td>81% (76%)</td>
</tr>
<tr>
<td>Rural literacy rate, whole population</td>
<td>83% (75%)</td>
<td>62% (55%)</td>
</tr>
<tr>
<td>Male rural literacy rates</td>
<td>91% (84%)</td>
<td>77% (72%)</td>
</tr>
<tr>
<td>Female rural literacy rates</td>
<td>87% (65%)</td>
<td>46% (37%)</td>
</tr>
<tr>
<td>State Scheduled Caste Literacy Rates</td>
<td>(70%)</td>
<td>(52%)</td>
</tr>
<tr>
<td>Gender gap in SC rural literacy</td>
<td>(20%)</td>
<td>(35.7%)</td>
</tr>
<tr>
<td>Gender gap in SC urban literacy</td>
<td>(13.4%)</td>
<td>(32.6%)</td>
</tr>
<tr>
<td>State Scheduled Tribe Literacy Rates</td>
<td>(65%)</td>
<td>(44%)</td>
</tr>
<tr>
<td>Gender gap in ST rural literacy</td>
<td>(24.7%)</td>
<td>(36%)</td>
</tr>
<tr>
<td>Gender gap in ST urban literacy</td>
<td>(10.9%)</td>
<td>(32.8%)</td>
</tr>
</tbody>
</table>

See footnote^18

See footnote^19

Data Sources: 2011 Census of India, 2012 Economic Survey (Census of India 2012b; Ministry of Finance 2012)

In both the states under study literacy rates are much lower in rural than in urban areas; among females than among males; and among schedule castes and schedule tribes than among the rest of the population. Figures in table 3 showed a trebling of literacy in Himachal between 1961 and 1991. During this period female literacy rate increased from 11 percent to 86 percent (Drèze et al. 2002 p177). By contrast West Bengal, a state where social reform movements to promote equal status for women were started long ago, women’s literacy still lags far behind that of men (Census of India 2012b) despite the commitment of the communist government to gender equity. Rajasthan is one of the worst performing states in India in terms of elementary educational provisions for girls, dalits^20, migrants and nomadic people (Government of Rajasthan 2002 p18)^21. Data on the changes in males and female literacy rates for the two study states between 1981 and 2011 are given in Table 6 (with data on the best and worst performing states are given for comparison) on the following page. Table 7 shows the ranking of these states on total literacy and by gender among from 1991 to 2011.

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^18 Sex ratio: number of females per 100 males.

^19 Per capita domestic product in rupees, indicated by symbol ₹, formerly written ‘Rs’

^20 term for members of scheduled castes

^21 For studies on nomads in Rajasthan see e.g. (Ruhela 1968), (Misra 1977),(Robbins 1998), (Pant 2005)
Table 6 Changes in literacy rates (%) 1981 - 2011

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>44</td>
<td>52</td>
<td>65</td>
<td>74</td>
<td>57</td>
<td>64</td>
<td>76</td>
<td>82</td>
<td>30</td>
<td>39</td>
<td>54</td>
<td>65</td>
</tr>
<tr>
<td>Bihar</td>
<td>32</td>
<td>39</td>
<td>48</td>
<td>64</td>
<td>47</td>
<td>53</td>
<td>60</td>
<td>73</td>
<td>17</td>
<td>23</td>
<td>34</td>
<td>53</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>30</td>
<td>39</td>
<td>61</td>
<td>67</td>
<td>45</td>
<td>55</td>
<td>76</td>
<td>81</td>
<td>14</td>
<td>20</td>
<td>44</td>
<td>53</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>51</td>
<td>64</td>
<td>77</td>
<td>84</td>
<td>64</td>
<td>75</td>
<td>86</td>
<td>91</td>
<td>38</td>
<td>52</td>
<td>68</td>
<td>77</td>
</tr>
<tr>
<td>Kerala</td>
<td>82</td>
<td>90</td>
<td>91</td>
<td>94</td>
<td>88</td>
<td>94</td>
<td>94</td>
<td>96</td>
<td>76</td>
<td>86</td>
<td>88</td>
<td>92</td>
</tr>
</tbody>
</table>

* 2001 & 2011 figures for Bihar are not strictly comparable with earlier years as part of the area that formed Bihar was excised to include in the new state of Jharkhand in November 2000.

Table 7 Literacy Rankings (total, male, female) for selected states 1991 - 2011

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bihar</td>
<td>27</td>
<td>28</td>
<td>28</td>
<td>27</td>
<td>21</td>
<td>26</td>
<td>28</td>
<td>=27</td>
<td>=27</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>26</td>
<td>23</td>
<td>26</td>
<td>22</td>
<td>17</td>
<td>27</td>
<td>23</td>
<td>=27</td>
<td>=27</td>
</tr>
<tr>
<td>Himachal</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>=4</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Kerala</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

In considering progress, and the possibility of achieving universal literacy, the patterns of change in literacy levels, the trends, are as important as the actual present rates. For the study states these are shown for the census years since 1951 in Figure 1 and for males and females in Figure 2 (page 15):

Figure 1 Trends in literacy rates for two study states, 1951 to 2011

[Diagram showing trends in literacy rates for Himachal Pradesh and Rajasthan from 1950 to 2010.]
While the importance of resources cannot be denied or ignored; it is also relevant to look closely at the wide and persistent differences in the spread of literacy among regions and social groups. Socially disadvantaged groups are not all equally lagging the average. Groups with similar economic disadvantage differ in education attainment, as do identified social groups when compared across different states. In achieving educational outcomes resources matter but other factors are also important. Why is it that within the same country, some areas have had educational progress while others have not? What favourable forces enable the socially disadvantaged to overcome their educational deficiencies in some parts of the country (as happened in Himachal) but not in others? Why is there so much differentiation in respect of quality and performance within the government-run village school system, let alone between public and private schools? That these are not easy issues to give reliable answers to is illustrated by mid-twentieth century predictions about Himachal Pradesh. Policy makers in the 1960’s believed that by end of the 4th five year plan (1974) most states would have achieved universal elementary education but anticipated a few exceptions of ‘backward states’, among which they named Himachal Pradesh (Safaya 1970 p80). On both points there was gross failure of prediction. The prediction of UEE by 1974 may have incorporated a degree of politically based optimism, that regarding Himachal suggests a serious misunderstanding of factors affecting schooling. A higher level of financial resources devoted to human services may be expected to improve outcomes, but that is not necessarily the case. How they are used to create and maintain the systems that deliver the services can matter a great deal. The high level of outcomes in health and education

Figure 2 Gender literacy rates, 1981 - 2011 for Rajasthan & Himachal Pradesh

Trends in gender literacy rates for two study states, 1981 to 2011 Upper line is male in each plot


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22 “public” being state schools - the same usage applies throughout. The clarification is made as the term “public school(s)” is sometimes used in India in the same manner as in the UK and Australia to refer to prestigious schools that are independent of the state education system.

23 Private schools are not part of the research study as the SSA program, whose impact is part of the research, covers government schools only.
achieved in Kerala for modest financial input have been described by Drèze and Sen (2002). The modest health outcomes for high financial input in the USA are well documented (e.g. Anderson 1997).

In seeking to find some answers to the different educational outcomes of Himachal Pradesh and Rajasthan attention will be given to the functioning of school systems in the manner outlined below.

**Conceptual framework**

School Education - *how it works*

While some holistic educators [e.g. (Miller 1996); (Miller 1997)] would oppose attempts to view education from the standpoint of ‘components’ through fear of turning education (and the child involved) into a mechanism from which the ‘essential humanity’ was omitted, the approach here is to embrace both reductionism and synthesis. We better understand what’s happening in education by examining all the processes involved. There is understanding at different scales - from the cellular level as neural networks are rerouted - as seen from cognitive or neuro-science perspectives (Gilbert et al. 2001; Lawson 2003); to the gross changes in education levels across the nation - as viewed by a national education authority (Department of Elementary Education and Literacy 2000; National Council of Educational Research and Training 2005) or the planning commission (Planning Commission 2010a).

Education need not involve schools, nor literacy. Informal education exists everywhere; formal but non-school, education - long established via self-directed learning as well as by tutors - continues through the present, while future mass education may be via digital systems using individualised ‘artificial intelligence agents’ (e.g. Burleson et al. 2007; Campbell 2012; Nye 2014). For the past 150 years mass education has largely taken place in schools and it seems probable that this will continue at least into the near future. When functioning properly schools are the most economic way to provide quality education to a whole population.

A school can exist as a singular entity, as part of a group or within a system of thousands of schools.

Whatever the arrangement, the individual school with its building(s), students and teacher(s) is the basic entity in which ‘education happens’. Hence the attention here is on the school - if children are failing to learn, or the achievement is poor, the obvious place to look for causes (and institute remedies) is within the school. Education is fundamentally a series of social interactions between a learner, a teacher and the learner’s peers in which the learner acquires factual knowledge, many skills and
conceptual frameworks via those interactions and their internal cognitive processes. While the fundamental notion is simple its practice is complex. Hence in the business of looking at ‘how school education works’ one finds different approaches. In plans drawn up to provide education, or to improve it, there is great variation in the attention given to the ‘internal workings’ of schools. At one extreme just the establishment of schools dominates policy objectives - SSA at its beginning is an example. At the other end of the spectrum there is the detailed attention to classroom practices at the centre of Shanghai’s recent school reforms (Cheng 2010; Tan 2012) - just one example of implementation based on research into classroom interactions (e.g. Muijs et al. 2010). That Indian school improvement programs so often give scant attention to what happens in classrooms suggests to the researcher the metaphor of administrators and planners viewing schools as ‘black boxes’ - inputs are provided with the expectation that educated pupils will emerge, but the means by which that happens is unexamined. Three variations on this model cover many such programs.

A simple “black box” model just assumes that given a school, complete with teacher, education occurs:

Figure 3 Simple “black box” model of schooling

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24 Though the metaphor seems an obvious one, and discussion of the significance of classroom practices is prominent in educational literature, the closest usage found in the literature was Black’s discussion related to assessment (Black et al. 1998), that on research into teaching mathematics (Adler et al. 2006) and in Mehan’s examination of student classroom interactions.

25 This diagram, and those which follow on pages 20, 21, 22, 25 and 26, has been designed by the researcher to graphically represent her concepts of how schooling is perceived to operate and how it actually functions; formulated after reflection informed by wide reading and extensive discussions (with teachers, parents and administrators).
Though such an idea might appear odd, it seems to be that which is held by some parents and village officials and, more surprisingly, by some in charge of education who don’t inquire about students’ achievement.

What’s inside the box can appear to be the proverbial ‘can of worms’ to those outside the field of education so it’s not too surprising that some research on schools takes essentially a simple black box view - looking for correlations between various inputs and the extent or nature of the ‘educated output’. When strands of SSA expect improved facilities (water, toilets) to lead to better output the conception of schooling is akin to this mode.

Although US studies of school education four decades ago emphasised out-of-school factors such as family income and parental education as the most significant determinants of student achievement (Coleman 1966; Jencks 1974), with schools and teachers viewed as of marginal relevance, extensive recent research show that schools matter and that the most important in-school factor affecting student achievement is the teacher (Hanushek 1992; Mehan 1992; Wenglinsky 2002; Rivkin et al. 2005; Organisation for Economic Co-operation and Development 2010b). What the teacher does, the attributes that make a good teacher and what daily practices the good teacher employs are key parts of the complexity of schooling that some would like to ignore; but, acknowledging the importance of the teacher, there are programs of school improvement that recognise the teacher’s role, as shown in a modified black box model:

Figure 4  Modified black box model
When teachers are seen as a significant factor in students becoming educated they are the objects of attention by school governance bodies, district or state education authorities etc. As the ‘point of entry’ into the black box they are instructed to operate in certain ways in the hope that there will be some desired outcome. This is a view of a black box with a simple control mechanism. Some education research operates in this mode taking groups of teachers\(^{26}\) who are instructed to work in different ways so that changes in student achievement can be noted.

A third black box variation is to see the school as an entity whose functioning can be altered by suitable ‘incentives’ and ‘disincentives’\(^{27}\) without trying to delve into how a school functions:

\[\text{Figure 5 Black box model with incentives}\]

The types of incentives/disincentives vary. The above has assessment of student achievement affecting both teachers and ‘inputs’. The same measure could be applied to one of those alone, and either application could be positive (incentive) or negative (disincentive). Poor student achievement can lead simultaneously to impositions on teachers (salary frozen, or cut) along with larger inputs of items such as books, computers or other resources. In other cases incentives may be offered to teachers to ‘lift their performance’. Instead of student assessment, quite different measures may be

\(^{26}\) or in some cases the same teacher asked to function in different ways with different classes

\(^{27}\) Is it only that these words sound better than ‘rewards’ and ‘punishments’?
used to activate the feedback loops - the results of school inspection by external evaluators, parent satisfaction.

Although these three black box models represent different notions of how a school functions, they are all alike in that they fail to make any attempt to examine the processes within the school. What follows does attempt to do that.

A simple view of the operation of a classroom is along these lines:

**Figure 6 Classroom Interactions**

This conceptual model takes the interaction between student and teacher as being the most important element in school-based education. While this process may well operate very satisfactorily, as simple black box adherents expect, it is clear that in many cases it does not. The process may be altered by external incentives/disincentives (and in either beneficial or detrimental directions), but also may not. Not only does ignoring details of the teaching-learning process mean that the effect of incentives can be unpredictable, there may be deficiencies (e.g. a teacher’s ignorance of content they are instructed to teach) that incentives are unlikely to affect.

The conceptual view illustrated above has teachers and students interacting within the school but records that both entities also have existence outside school (and that this
will affect student’s education). This researcher suggests that there are six crucial elements in determining how effective a teacher is in developing the education of the students in their care:

**Presence**: simply being in the school, and, generally, in the classroom. Whatever attributes the teacher may possess he/she is going to have minimal impact on students if he/she is not at the school. In developed countries the presence of an employed teacher is taken as given but in many education systems teacher absence can be as high as a consistent 30 percent (Chaudhury et al. 2006).

**Effort**: that the teacher, in the classroom, interacts with students in an educationally productive manner; simply, bluntly: that they “teach”. The mode may be ‘direct instruction’, rote learning, establishing group work, setting individual learning programs etc. Whatever mode(s) are adopted the teacher needs to put effort into enhancing students learning. Outside the classroom effort is required for preparation and correction.

**Content Knowledge**: it is challenging, at best, to assist student to learn in any subject about which one is ignorant. A teacher ignorant in some domain may avoid teaching it, or when attempting to do so, do it poorly.

**Pedagogical Content Knowledge** (PCK): knowing a subject, even having extensive, deep and thorough understanding of it, does not ensure that one can effectively teach others about it. While in one to one tutoring the expert may, via constant interaction with their student, effectively communicate with them and foster learning, it is a different proposition with a class. Understanding common barriers to grasping particular ideas or acquiring skills and the tested ways to overcome them is the bridge that helps subject experts also become effective teachers.

**Teaching skills**: the collection of personal attributes (patience, empathy etc) and skills (use of voice, kindling interest, managing disruption, promoting collaboration etc) that enables one person to manage and direct the activities of a large number of students in ways that promote learning.

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28 For a set of ‘teacher effectiveness attributes’ that partly coincide with this list see Darling-Hammond (2009). Examining matters from the perspective of a developed country she has not seen the need to include ‘presence’ and ‘effort’.

29 i.e. with students, classes may for good reason be conducted outside the classroom.

30 accepting the low incidence of absence when ill or for “sickies”, family leave etc - the provisions made in employment awards. Even these have a significant impact on good operation of a school.

31 An issue not just in “developing countries”. Science is widely avoided in Victorian (Australia) Primary schools through teachers’ self perception of ignorance in that area. There are at least occasional cases in the same system of teachers being required to teach a foreign language of which they are ignorant by “keeping a few weeks ahead of the students”.
**Expectations:** both what the teacher themselves holds as desirable & achievable skills, competencies & understandings and what they hold as possible and desirable for the child. These go to establish the ‘learning targets’ set for students in the classroom. If the teacher has a poor grasp of a subject or doesn’t think it is important they are not likely to aspire for much from their students. On the other hand the teacher may have deep knowledge of a subject, think it’s important, at least to some, and know how to teach, but not believe that particular students (SC, ST, girls etc) are capable of mastering (or should master) this subject. To some extent the teachers expectations are set by curriculum, by external assessment, by colleagues and by the communities in which they live and in which the school is situated.

A teacher’s ‘motivation’ - their reasons for teaching, attitude towards the job, ‘what they get from it’ - is an important second level factor in their effectiveness as a teacher. Irrespective of her/his skills and knowledge the teacher with low motivation may not attend school, or if they do, not put any effort into teaching. Many factors impact on motivation, a number external to the simple framework outlined above. As with a great many aspects of teaching there are feedback loops connected with motivation. One example is the connection between teacher motivation and student achievement: for the teacher who believes education is important and that the students in their charge are significant, observing improved student achievement will improve motivation, which in turn increases the likelihood of effort being put into teaching and furthers students’ learning.

While teachers and students are at the centre of school education it is obvious that matters outside the school impinge on schooling. We therefore expand the framework to include these, and, for clarity do this in two stages, including first local factors, related to the community of the school and then more remote aspects of the school education system that nevertheless permeate down to influence the operation of a classroom.

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32 we have to observe that though we would desire all teachers to have these attributes not all do. Some take up teaching because its secure or pays well or is ‘easy’. Some who do think education is important in general, and for their own children and others of their social class, view the students of whom they have charge as uneducable because they come from a social group alien to the teacher’s experience.
In this expanded framework we see parents, school features (facilities, administration, resources), local school governance and other matters situated in the immediate physical and social vicinity of the school and therefore having, to varying degrees, influence on the way classroom learning is conducted.

At a larger scale are district, state and national educational bureaucracies. These create the framework in which education is practised and provide much of the physical infrastructure and resources that make teaching less demanding and frustrating - or, in their absence, more so. These levels also set conditions for teachers employment and provide, sometimes mandate, in-service training programs. All this, while possibly having a very profound effect on the nature of school education (witness clear differences between Indian states and between nations) is distant from the daily functioning of classrooms - their effects are evident via the ways in which they alter classroom practices. One exception to the ‘distance’ of teachers from the bureaucracy is...
in connection with salaries as staff are acutely aware of problems such as late or inaccurate payment, with consequent impact on motivation.

Also included in this larger framework are NGOs, though in some places they will have regular, even daily, contact with a school - even, in some cases, with their staff being used to take over instruction from the nominal teacher in the classroom.

**Figure 8 Extended view of schooling**

In summary the basis taken for examining elementary school education in Rajasthan and Himachal Pradesh are the functions at school level, particularly that core of school learning - the interaction of teacher and students. But in doing so attention is given to larger systems that have influence on schooling via the means in which they change school/teacher behaviour.

The purpose of the above is not to advocate any particular approach to classroom pedagogy founded on competing theories of learning (as outlined, for example, by Alexander, Scallert and Reynolds (2009)), but to make the very basic point that what happens in the classroom matters. The research by Hanushek, Meehan and others (cited previously) supports this position. Deciding what are the most productive teacher behaviours to foster students’ learning, encouraging/assisting teachers to adopt them
and monitoring what happens in classrooms are all complex issues. This, being ‘too hard’ to analyse and alter, may be one reason why what happens within classrooms has been frequently ignored by education administrators. In any country where the resources (school buildings and teachers at minimum) to make schooling available to the whole school age population have not been present the first priority in moving toward universal education is, naturally, to attend to those basic items. India was in that position at independence and efforts since have focused on building schools and training teachers. Very extensive data detailing the success of these activities is available (National Council of Educational Research and Training 2007; National University for Educational Planning and Administration 2014). The Sarva Shiksha Abhiyan mission statement, as well as giving details about improving provision, includes the aim “SSA seeks to provide quality elementary education including life skills” (Department of School Education and Literacy 2007) however reporting on the achievements of SSA via district and state report cards (e.g. National University of Educational Planning and Administration 2012) has no information about the quality of education obtained by students. Nor do the national surveys conducted by the National Council of Educational Research and Training (e.g. seventh survey in 2007). Individual classrooms differ but there is ample research evidence to substantiate the common belief that ‘traditional’ methods of teaching - teacher focused and relying heavily on activities such as dictation and copying notes - predominate in Indian primary schools (De et al. 1999 especially section 6.4; Bhattacharjea et al. 2011 Chapter 4).

For over a century teaching methods of quite different type have been advocated. Perhaps best known of the early proponents of what has come to be called ‘child centred education’ were Dewey (1897; 1902) and Montessori33 (1912; 2004). In 1920’s and 1930’s scholars such as Piaget (1997; 1999) and Vygotsky (1997) wrote of the importance of social interaction in children’s cognitive development and Piaget advanced a theory of stages of cognitive development taking the child from concrete experiences to abstract thinking - particularly influential in science and mathematics education (Kamii et al. 1996; Duit et al. 1998). In the sciences many studies showed that teacher presentation of material could lead to memorisation by students but that it was unaccompanied by understanding (Osborne et al. 1985). Many variations of pedagogy have developed that seek to actively involve the child rather than have them be the passive recipient of information transmitted from the teacher (Alexander et al. 2009).

33 Montessori was visiting India in 1939 when war began and remained in the country until 1947 during which time she trained teachers in her methods. There is a legacy of this in a significant number of Indian primary and pre-primary private schools following Montessori’s ideas (Sriprakash 2012 p31).
Besides investigative and creative activities these pedagogies are characterised by discussion as a powerful means of clarifying ideas, connecting new knowledge with old, confronting pre-conceived notions and building new concepts. Hake (1992) reports the use of what he terms “Socratic dialogue” to assist learning in physics. Alexander (2004; 2005), from research on types of verbal interactions that occur in classrooms, has outlined a framework in which “teaching talk” is seen to be used for one of five different purposes from *rote drill* to *dialogue*:

- **dialogue**: achieving common understanding through structured, cumulative questioning and discussion which guide and prompt, reduce choices, minimise risk and error, and expedite the ‘handover’ of concepts and principles (Alexander 2004 p12).

Mercer and colleagues have also made detailed study of talk in classrooms, particularly between students, and pointed to its importance in developing reasoning and in bringing about conceptual change, notably in science (Mercer 1996; Mercer et al. 1999; Mercer et al. 2004; Mercer 2008). School education in India has not been totally isolated from the movement away from teacher centric, ‘transmission’ modes, of education to child centred ‘constructivist’ approaches. Alternatives to traditional teaching methods as well as being advocated by educational theorists have been implemented to varying degrees through a number of sources, particularly: Non-Government Organisations (NGOs), activist groups, local groups of teachers and by both state and national bureaucracies.

There are hundreds of NGOs involved with education in India (The Council for Global Education 2013) most local and small scale. As well as the common purpose of providing financial support some are involved within classrooms, some run their own schools and some are intent on changing pedagogy on both small and large scales. Both the Azim Premji Foundation34 (Azim Premji Foundation 2014) and Pratham (Pratham 2014) are involved in programs, in many states, that aim to change classroom practices. Blum (2009) gives an overview of small NGO schools in India with particular attention to the Rishi Valley school in Andhra Pradesh. As with a number of NGO schools the prime motivation at Rishi Valley was to provide education in accord with a particular philosophical outlook, in this case the ideas of Krishnamurti (Gandikota 2010), rather than an explicit intention to implement contemporary pedagogical ideas. However when the philosophical outlook takes a holistic view of the child - rather than seeing an empty vessel in need of being filled with knowledge - implementing the philosophy in school moves teaching away from traditional teacher centric methods. A much earlier example

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34 Education NGO established by Azim Premji (founder of Wipro, an IT firm). It currently works in eight Indian states through institutes it has established in each that conduct research, liaise with government, and run networks of associated primary schools.
of the same type is the school, *Patha Bhavana*, (later extended to a ‘learning centre’, including university) established in 1901 by Tagore at Santiniketan in Bengal (Acharya 1997; Bhattacharya 2014). In the state of Karnataka an NGO developed a “learner-centred” (LC) pedagogy that was trialled in one district in 2005 (Sriprakash 2012 Pp 60-68, 153-177) and had extended to about 1000 schools by the end of the decade (Sriprakash 2013 p329).

Some activist groups with a progressive political outlook have viewed science education, in particular, as important in developing ‘modern’/‘rational’ ways of thought. Viewing rote learning of the subject as contrary to promoting ‘scientific outlook’ they have promoted involvement in activities to change pre-existing, intuitive, ideas about the natural world. The Kerala Sastra Sahitya Parishad (“People’s Science Movement”) was primarily concerned with improving knowledge of science among the whole population and linking that with left ideology (Kannan 1990) but also worked in primary education (Pattnaik et al. 2012). The most notable activist involvement in school science education was by the group that established the Hoshangabad Science Teaching Programme in sixteen Madyha Pradesh schools in 1972:

> The main thrust of this method was to break out of the traditional framework of classroom teaching, with the teacher as the authoritative symbol of knowledge. Instead, children would learn science by performing experiments on their own, recording their observations and deriving their conclusions, instead of learning facts and definitions by rote. In this system the teacher becomes a helper and guide, who welcomes questions even if he/she may not know the answers without fear of losing his/her authority. (Mukund 1988 p2147)

The program was taken up in over 200 schools by 1978 and there were plans to extend it to all schools in the state (Mukund 1988). A 1991 evaluation by the National Council of Educational Research & Training (NCERT) supported its expansion, with modification and more support (National Council for Educational Research and Training 1991). However the program encountered continuing opposition from conservative religious and political groups and was shut down in 2002, though by that time it had grown to cover about 2000 schools (Menon 2002b; 2002a). More generally Niesz and Krishnamurthy cite the role of activist groups as being important in pedagogical reform (‘Activity Based Learning’), which was made policy in Tamil Nadu in 2007 (Niesz et al. 2014).

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35 Supposedly the concern of all Indians - the Constitution of India contains a section on the fundamental duties of all citizens, one of which is “to develop the scientific temper, humanism and the spirit of inquiry and reform” (Government of India 2013 article 51A paragraph (h)).

36 The report notes that in his 1972 decision to let the proponents of the program proceed the Director of Public Instruction In Madhya Pradesh remarked: “The standard of Science education in Madhya Pradesh is so poor, what can these people do to make it worse?” (National Council for Educational Research and Training 1991, final page)
Reform of teaching methods has also been initiated by teachers within schools. As well as the often poorly documented work of individuals in single schools there are instances where reform initiated by classroom teachers has had state-wide impact. The largest and best documented, example of this in Karnataka state. In 1995, fifteen teachers from remote rural primary schools attended outreach programs conducted by Rishi Valley school and on return to their own schools decided to design a teaching program based on Rishi Valley principles. This nali kali ("joyful learning") method obtained UNICEF support, spread to about 4000 schools by 1997 (Ramachandran 2003) and was then adopted by the state authorities as part of a state-wide reform program (Sriprakash 2012 p52). Sriprakash provides details of the nali kali approach and a case study of its implementation (Sriprakash 2012 Pp52-60, 127-151) as well as a comparison with the NGO developed LC program mentioned above (Sriprakash 2012 Pp99-106, 110-124). Though they differ in aspects of their underlying philosophies both LC and nali kali are radically different from the teacher centric approaches that preceded them. Each makes great use of teacher produced materials and have dispensed with text books. Much class time has students working in small groups and working through a sequence of materials at their own pace; discussion rather than instruction is the dominant mode of interaction.

Despite the long period during which forms of child centred education have been conducted in India, state education policies and the state education systems were largely untouched by these ideas until relatively recently. Sriprakash views 1986 as the beginning of change with the introduction of a National Education Policy that “explicitly promoted child-centred ideals as a national approach to mass education in government schools” (Sriprakash 2013 p326). Implementation of those ideals has been slow as evidenced by more recent reports on classroom practice (De et al. 1999; Bhattacharjea et al. 2011) though the policy, perhaps, established an environment in which the Hoshangabad project could persist for three decades and the reform projects in Karnataka be given endorsement. The National Curriculum Framework of 2005 gives as a guiding principle of the curriculum “ensuring that learning shifts away from rote methods” (National Council of Educational Research and Training 2005 p viii). Chapter 2 of the document, Learning and Knowledge, expands on that principle with discussion of “child centred pedagogy” and a section on “constructivist learning” (National Council of Educational Research and Training 2005 p13; p19). However reports such as that from Bhattacharjea and colleagues suggest that these ideas have not been widely implemented and that the skepticism expressed by Sarangapani when reviewing the draft document was well placed:
it was a pleasant surprise to see on page 17 of the new National Curriculum Framework, a section titled ‘Child as a Constructor of his Knowledge’. Finally it appeared that the foundations of school curriculum would be shifted away from archaic misconceptions of the child as a learner. Just how can we aspire to be ‘a knowledge-centred India’ or ‘learn to learn’ unless children are made active participants in their learning? Espousing the constructivist paradigm should have led to its logical conclusion of reorienting the approach to the curriculum – in matters of selection, organization, transaction and evaluation. Unfortunately, nothing in the following chapters indicated that the edifice was going to be reconstructed (Sarangapani 2000 p3).

Sriprakash later describes “an uneasy combination of instrumentalist and progressive educational discourses” and gives a cogent account of the interplay between the proclamation of the importance of child-centred learning in national education policy documents set alongside learning objectives framed in the behaviourist tradition. Such policies, from mid 1980’s onward, also often contain as curriculum imperatives the development of nationalist outlook and the fostering of traditional moral values (Sriprakash 2012 Pp32-45).

In two states there has been significant large scale state sponsored change in classroom pedagogy. The case of Karnataka has been outlined above; although the initiative for change there came from outside the state educational administration the state has picked up what had begun and implemented the changes across Karnataka. There are limitations - both nali kali and LC are essentially restricted to grades one and two\(^37\) and, as Sriprakash (2012) discusses, there have been implementation problems in moving from a small program to a state-wide one, more significant is her observation of a disconnect between reformed pedagogies used in early years and unchanged methods in later years. In the other state with state sponsored reform the change is more extensive and more explicitly state initiated, though the Rishi Valley program was also its genesis. The Tamil Nadu (TN) state education system expanded a 2003 trial of ‘Activity Based Learning’ (ABL)\(^38\) in thirteen Chennai schools to all the state’s primary schools (\(~37,500\) in 2007 (Niesz et al. 2011; Anandhi et al. 2010; Rani et al. 2008). This is a more extensive reform than that in Karnataka, covering a larger population, but more significantly it involves all grades in both primary and upper primary schools - in contrast to the Karnataka reform which is limited to the early primary years. Despite the extent of the reform and its (at least intended) radical change in teaching methods it

\(^{37}\) In discussions the researcher had with school inspectors for rural Bangalore and with the State Director of SSA in June 2012 it appeared that an initial intent to extend nali kali through all the primary years had been reconsidered and was unlikely to occur. The main reasons given were uncertainty as to how children would adapt to traditional methods at secondary school, worry about achievement levels and resistance from education sectors with traditional approaches. Cost was also mentioned.

\(^{38}\) Termed “Active Learning Methodology” (ALM) when extended to the state’s 12,000 upper primary schools (World Bank 2008).
does not appear to have been the subject of an extended, rigorous, study of the type Sriprakash has undertaken in Karnataka. A number of reports (many from entities connected with the TN reform) examine aspects of the changes. Overall these find that the reforms have been beneficial, but all note aspects of the programs where improvement is needed (World Bank 2008; Dey et al. 2011; Anandhi et al. 2010; Hariharan 2011). Hariharan’s classroom observations (Hariharan 2011 Pp36-41) indicate that reading and writing still occupy a large amount of students’ class time rather than the extensive range of activities that the ABL title might suggest. However his observations also accord with the other reports of a dramatic change from the previous typical TN classroom that was teacher centred and dominated by rote learning. Although a state sponsored reform there was an important role played by NGOs and activist groups within Tamil Nadu in supporting the education bureaucracy in implementing the changes (Niesz et al. 2013). The same authors have examined the cultural-political landscape of Tamil Nadu resulting from the Dravidian movement, begun in the 1930’s, that challenged existing social and political structures and promoted rationalism over existing belief systems. They view this “political history as important context but not as an agent of the ABL movement” (Niesz et al. 2014 p153).

This brief outline of some of the attempts to change the character of Indian school education provides examples of the way in which the model of schooling illustrated in Figure 8 works. There are a very large number of factors which have been suggested as having an influence on the ‘nature of education’ that a student obtains (Hattie 1999; 2009; 2013). One facet of that ‘nature’ is the achievement of students in various domains. Figure 8 includes some fifty factors, with suggested linkages to show the path by which each might affect the classroom interactions where formal school education primarily occurs. This large scale conceptual framework can be refined in two important ways: (a) by moving towards construction of an actual model in which the importance of each factor is measured and weighted and (b) by using finer scale conceptual frameworks for portions of the overall one shown; one case being the factor of ‘teacher effectiveness’ shown at the centre of Figure 8 which can be analysed through all the attributes that contribute to it. The conceptual framework outlined above in Figures 6, 7, and 8 has the classroom teacher at the centre, the most significant factor in influencing student learning. There are both ‘internal’ and ‘external’ influences on a teacher’s effectiveness. Internal influences include the teacher’s personal attributes as well as the content and pedagogical knowledge they have acquired. External influences are many and with various degrees of impact; they include the extent of peer support and
collaboration, the local physical infrastructure, the imposed curriculum and support from the education system in which the teacher works (whether single school or state wide bureaucracy). Hattie’s synthesis of some 800 meta-analyses of educational studies (Hattie 2009) indicates the overwhelming influence of teacher actions among the school related factors that affect student achievement, and minor direct effects of school itself (infrastructure, leadership, facilities), of imposed curriculum and the wider education bureaucracy. Analysis of classroom practice (Hattie 2003) indicates that, as well as content and pedagogical knowledge, among the most important attributes of effective teaching are the nature and extent of interaction between teacher and student - feedback being of prime importance, so too ‘reciprocal teaching’ question and response less so, though still significant. Emphasis was placed above on the fact that Hattie was examining the direct effects of various factors, noting that the interactions were usually complex and minor. There are instances where this is not the case - the impact on teachers, and thence on their work in classrooms, is likely to be significant if they are not paid or if they work in an environment where education is not valued or where students are viewed as incapable of learning.

To the extent that Indian schooling has been based on teacher centric, rote learning methods (De et al. 1999; Bhattacharjea et al. 2011) the framework outlined, supported by Hattie’s analysis, indicate that the most important in-school factor affecting student achievement has been greatly under utilised; and in all those instances where teachers have not been present in school that that most important factor has been entirely absent. Among the examples of Indian schooling that have attempted to move away from the traditional mode the framework and research provide a general explanatory pattern: reform had greater impact where it was initiated by teachers and had teachers closely involved and lesser impact the more removed were teachers from its initiation and implementation. Rishi Valley school, the nali kali program in Karnataka (as initiated), the Hoshangabad science program are all cases where teachers were intimately involved in designing, implementing and adjusting programs; all with degrees of success (Gandikota 2010; Sriprakash 2012 p52-63; National Council for Educational Research and Training 1991). In contrast the ‘child-centred’, constructivist aims of the reform

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39 Imposed curriculum - that which is set by external agents, as distinct from the actual curriculum, being the totality of what a teacher organises for their students.

40 But, as an illustration of the level of detail required in analysing effective teaching, though ‘positive feedback’ in the form of praise might be thought to be beneficial it is poorly correlated to improved achievement and may ‘crowd out’ effective feedback that it accompanies (Hattie 2012).

41 reciprocal teaching - enabling students to learn and use cognitive strategies such as summarizing, questioning, clarifying, and predicting when supported through teacher-student dialogue (Hattie 2009).
2005 national curriculum have not had wide impact in schools (Bhattacharjea et al. 2011) and have even been overlooked by groups planning its implementation (National Council for Educational Research and Training 2011). Between these extremes are the cases where reform was based on practices developed and tested in classrooms but then generalised to larger groups, without adequate teacher preparation and with consequent inadequate understanding of a program’s purpose and of the pedagogies involved. This is evident in Sriprakash’s account of nali kali implementation at Mallige Primary school (Sriprakash 2012 chapter 8) and in Hariharan’s observation in Tamil Nadu classrooms (Hariharan 2011) after the 2007 ABL reform.

Significance of the research
Education is as important for a nation’s development as it is for each individual. Well-educated nations tend to be wealthy nations of the ‘developed world’. Among ‘less developed’ nations achieving better education is taken to be a necessity for development. Changes in China since the 1949 revolution are a prime example. Despite arguments about the precise relationships between education and development the general pattern applies. Though India is the tenth largest economy in the world (International Monetary Fund 2012) it has failed to provide even elementary education to large sections of its population. Notably, as mentioned above, there are large differences in educational provision for girls, the rural poor and scheduled castes (SC) and scheduled tribes (ST) - collectively seen as disadvantaged groups.

In order to make primary education programs more effective and successful for these sections of the society, it is important to find out the reasons behind the existing situation. Many scholars [(Safaya 1970); (De et al. 1999); (Drèze et al. 1999); (Aggarwal 2001a; 2001b; 2009); (Kingdon 2007); (Govinda et al. 2008); (Mehta 2010)] have studied aspects of primary education in India. De and Drèze looked at what was happening in schools but many studies have focused on resource inputs (human and financial) and attempted to relate those to outcomes. In attempting to locate the fundamental factor(s) distinguishing a better performing education system from a poorer one, this research will make use of data collected at school level; data that is based on the researcher’s observations and measurements and on the accounts of people directly involved with education where it happens - the students, teachers and parents. By including in an assessment of how schools function consideration of the ‘human factors’

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42 The “schedules” are lists authorised under articles 341 (for castes) and 342 (for tribes) of the Indian constitution. The lists were first published in 1950 naming the specific groups, and have been amended many times since. Often collectively abbreviated as “SC/ST”
of those involved it is hoped that the research may contribute to understanding why there are such divergent outcomes with the same inputs of money and numbers of people. This may involve a critical assessment of some of approaches adopted by SSA aimed at improving elementary education, including those with specific provision for the education disadvantaged groups - approaches that focus on educational provision rather than educational outcomes.

The importance of the research being in rural India lies in the fact that India is still overwhelmingly a rural country with an urbanisation rate in 2011 of just 31.2 percent\textsuperscript{43} (Census of India 2012a).

\textsuperscript{43} 2011 Census data: total rural population 833,463,448; total urban population 377,106,125 2001 Census data: total rural population 742,490,639; total urban population 286,119,689 - an urbanisation rate of 27.8%
Chapter 2  Methodology

Introduction
Through this research the researcher wanted to capture aspects of the reality of elementary school education in parts of contrasting North Indian states to compare with the documented and implicit intents of the school system. There is a very large amount of statistical data readily available about schools, teachers, students but little information about the people involved. Few papers record what parents, students and teachers have to say about schooling - what is good, what is bad and their ideas about why it is so. The intent was to know the experiences of teachers, parents and students. The initial plan was to conduct field work in three states - West Bengal, Himachal Pradesh and Rajasthan. Preliminary field work was conducted in Bankura district of West Bengal in January 2010 with short visits to eight villages, including their schools, to establish contacts. Security advice regarding Naxalite activity, particularly following the February 2010 attack in neighbouring Paschim Medinipur district (Bose 2010), resulted in this aspect of the study being abandoned. The research was then conducted in the states of Rajasthan and Himachal Pradesh, with approximately two and a half months spent in each state. Rural areas were chosen in districts with varying literacy rates and fieldwork conducted in up to three blocks\(^44\) in each district. During discussion about the management of Indian state education systems with the Professor of Public Systems at the Indian Institute of Management, Bangalore [IIM(B)] it was suggested that visits to Karnataka rural schools would provide insight into an alternative approach to conducting the early primary years and the offer to arrange this was taken up. Observations from these visits and the preliminary work in West Bengal may be drawn upon in places, though it does not form part of the main research.

Outline of information to be used
Information was utilised from two types of sources: (i) material of various types, described later, collected during fieldwork (ii) existing data, mainly statistical, from Indian government sources\(^45\) (state and federal) and from an educational NGO, Pratham. This has been supplemented by background reading on aspects of education particularly the history of Indian education, notions of “literacy”, documents connected with the SSA program, and other recent research on Indian school education.

\(^{44}\) “block” - a subdivision of the districts that make up an Indian state. Though the official designation for District subdivisions varies from state to state - including tehsils (tahsils), talukas, blocks, mandals - the term block is widely used irrespective of the local official terminology.

\(^{45}\) main ones: Census, DISE, NCERT (National Council of Educational Research and Training), NFHS (National Family Health Survey)
Material from government sources

Sarva Shiksha Abhiyan (SSA) is under the jurisdiction of the Ministry of Human Resource Development (MHRD) at the federal level. To assist with planning of SSA programs and monitoring of their outcomes, the District Information System for Education (DISE) was enhanced. This program, for the collection of statistical information and its dissemination, was established preceding SAA and is managed by the National University of Educational Planning and Administration (NUEPA\(^{46}\)). DISE collects data on about fifty parameters at district\(^{47}\) level each year. The data is collated to produce district, state, and national level reports on certain aspects of the condition of primary level education. These are available in printed form and from the DISE website.

A large range of other material is available from the SSA section of the website of the Ministry of Human Resource Development (MHRD). To begin the research, the DISE website was downloaded as well as that of SSA itself (also within MHRD) and a very large collection of reports (including many with statistical information), spreadsheets, PowerPoint presentations and other material\(^{48}\) extracted from them. In addition, documents have been obtained from separate SSA sites within states and from the Comptroller and Auditor General of India (CAG) (2013). This comes to about 10,000 documents.

This data set provides resource from which to build a partial current picture of elementary education in the two states being studied. Partial because the data focuses resources, material and humans, rather than outcomes - student achievement. The material also enables changes during the past decade to be tracked, as well as giving access to official assessment of achievements made as produced by MHRD and by the Auditor General.

Data on education resource provision and student achievement collected by the NGO Pratham has also been used. The results of Pratham’s research have been published since 2005 in their Annual Status of Education Reports (ASER).

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\(^{46}\) Prior to 2006 the body was named the National Institute of Educational Planning and Administration (NIEPA). It was “deemed to be University” in August 2006, hence the change in name.

\(^{47}\) (a) the number of items has increased over the course of SSA, reaching 95 in 2008.

(b) A ‘district’ is an administrative sub-division of an Indian state

\(^{48}\) The websites were downloaded (using the website copy program HTTracker) rather than accessed online for three reasons:

(a) online access can be extremely slow

(b) the organisation of the sites doesn’t always make finding material straightforward

(c) the downloaded sites can be indexed and searched, making relevant material more readily available.
Some use has also been made of data from the 2009 Program for International Student Assessment (PISA) conducted by the OECD Secretariat, in which the Himachal Pradesh school system was a participant.

**Direct data collection, fieldwork**

The purpose of the fieldwork was threefold: (i) to gather data by direct observation which can be compared with official statistics, not as check on their accuracy - which would need large scale sampling - but on their credibility; (ii) to gather data from individuals about their experiences of the education system: information which is almost entirely omitted from official reports; and (iii) to seek the views of some of those directly involved in education about “what works and what doesn’t” - about their ideas on the reasons for success, failure and continuing problems.

The aim was to obtain a view of education held by those directly involved (students, teachers, parents and, to some extent, public servants) to put beside the ‘objective’ picture built up through official statistics (whose credibility in turn was checked via ‘ground reality’ observation).

In Himachal Pradesh and Rajasthan primary schools were visited, classes observed and both teachers and students interviewed. Some students and parents were interviewed in their homes. The state directors of SSA in both Rajasthan and Himachal Pradesh agreed to facilitate the research, including by assisting the researcher in holding discussions with those tasked with implementing SSA in each state. The researcher was also assisted by Pratham, the largest educational NGO in India. Pratham has agreements with various state governments to assist their school systems in various ways. After the researcher had obtained consent to the research from state authorities Pratham assisted by providing contact with schools and in distributing information/consent forms to teachers, parents and students seeking their participation.

In West Bengal assistance was provided by the Director of the Institute of Development Studies Kolkata (IDSK). As well as having the benefit of dialogue with IDSK staff they helped arrange visits to eight schools where they worked in conjunction with an NGO. Arrangements were also made with the Professor of Public Systems at the Indian Institute of Management, Bangalore [IIM(B)], whose area of specialisation is educational management, to discuss SSA, and conduct school visits as well as hold discussion with the District director of education for schools around the city. Visits were made to twelve schools in rural areas around Bengaluru in the company of school inspectors who were making unannounced visits. Though these visits were short (up to
half day per school) they enabled observation of classes, interaction with students and interviews with some teachers - all of which will supplement data from the two study states.

Much of the rest of this chapter is concerned with issues relating to fieldwork.

**Information from background reading as it informs the conduct of the research**

The Introduction gave data about the two states chosen for research. The literature includes reports of studies in these states (which will be referred to later) as well as some comment on their achievements.

(i) *Himachal Pradesh*

Drèze and Sen (2002 p177) suggests that the two prime reasons behind this state’s impressive achievements in raising enrolment and literacy were exceptional parental motivation and that the state government made excellent use of all education schemes funded by the central government. The state government also attended to practical details such as providing housing for teachers in the tribal and remote areas. Drèze and Sen believe the most significant difference between Himachal Pradesh and other states is the actions taken in reducing regional imbalances, thus enhancing community solidarity and civic cooperation.

(ii) *Rajasthan*

Rajasthan is one of the worst performing states in India in terms of elementary education. According to a 1999 report:

> “only five countries have a higher gap than India in terms of literacy rates being lower for women than for men in most regions: Bhutan, Syria, Togo, Malawi and Mozambique. Rajasthan alone has as large a population as all these countries combined, and no country in the world has a higher female-male literacy gap than Rajasthan” (De et al. 1999 p11).

From the literature it was learnt that a large number of programs had been started by the central and state governments prior to the current SSA program to promote education in the state but the literacy situation in the state is still grim. Despite these programs targeting disadvantaged groups, the education provisions for girls, dalits, migrant and nomadic people are still far from satisfactory. All those programs are now seen to have some inherent weaknesses (Government of Rajasthan 2002 p18). An interesting question here is: “Why even after so many programs were started, Rajasthan still faces major obstacles in attaining universal elementary education?”

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49 Drèze and Sen comment that the high degree of parental involvement is related to the weaker caste divisions in HP compared to neighbouring states. This is supported by Jorgensen’s report that if a school is closed down both upper and lower castes, rich and poor, go and ask for the explanation and reversal of the decision (Jorgensen 1989 Pp115-126; 2002 p17).

50 The Non-Formal Education Programme, Shiksha Karmi Project, Lok Jumbish Pariyojana, Rajiv Gandhi Swarna Jayanti Pathshalas (RGSJP), District Primary Education Programme
**Philosophical Framework**

The researcher takes a realist outlook – a real, external, material world is studied in the natural sciences and a real, external, social world in the social sciences. That the subject of study in the latter case is also socially constructed does not make it any less real, nor less amenable to empirical study. It does mean that the methods of study and types of data collected may not be the same as in the natural sciences\(^5\).

While some argue about objective or subjective approaches, and see a fundamental difference between ‘the methods of science’ and those employed in the humanities and social sciences the researcher is attracted to Susan Haack’s notion of rational enquiry: enquiry subject to rational scrutiny and disputation, backed by evidence of some kind, but by no means limited just to that which can be measured (Haack 2003).

While in the physical sciences knowledge about the world is paramount and the human responses to it less significant; in the social sciences the human responses (as well as being of interest as individual testaments) collectively form a large part of the domain under investigation. Susan Haack gives a nice example of the reality and significance of a socially constructed domain: she points out that the monetary system involves pieces of metal and paper, material objects, but that the monetary system is much more than that. Central to it are beliefs and values; the trust that each participant in the system must have that the exchange value of those material tokens will be honoured. It would be absurd to set out to study the monetary system and just examine the bits of metal and paper (Haack 2003 p162).

That the essential components of the system reside with human intentionality does not make the monetary system any less real than the planetary system or the hypothesised system of sub-atomic particles. Each may equally be the subject of rational enquiry. The point then is - how best to capture this reality in its subjective and objective aspects?

Haack makes an analogy between the emergence of accepted ‘truth’ in a domain of science and the emergence of the solution to a crossword puzzle: inferences are made from clues, these guesses are checked by their fit, or otherwise, in the matrix of other inferences drawn from other clues. Haack’s point is that rational enquiry in many fields, in particular in the social sciences, can proceed in the same manner – but that what is regarded as evidence, and the means used to warrant the reliability of each piece of evidence differ from field to field. Thus the possibility of objectivity does not need to be abandoned; but it is different from the manner in which is it usually conceived in physics. Physics has sometimes been seen as setting the “the gold standard” for

\(^5\) But in the natural sciences there is no single method nor single type of data used, in any case.
research, but rational enquiry can take many forms and attempts to simply copy the methods of physics are not just misguided but destructive to productive research:

“Physics envy” has sometimes given us cargo-cult social science, the form without the substance of real enquiry —————————————————— “methodology” in spades but no real effort to discover the truth; symbolic formulae, but no real precision” (Haack 2003 p168).

The researcher takes Haack’s ‘precision’ here to be not just the precision usually associated with the physical sciences - precision related to measurement - but to refer as well to precision in description, in analysis, the use of language: so that those involved in a particular field of enquiry can conduct a discourse with as little ambiguity as possible and with the conscious intent of minimising any ambiguity that may exist.

**Methods used**

A distinction is often made between what are described as ‘quantitative’ and ‘qualitative’ methods of research. The former based on use of numerical data, the latter on data of all other varieties. In this research, aiming to build a picture of education in parts of India that reflects both its objective state and participant’s response to it, both quantitative and qualitative data are used. Thus the researcher followed what is sometimes called a “mixed methods” approach. That term suggests a dichotomy that reflects a particular outlook on research rather than a fundamentally useful pair of distinct categories. Rational enquiry in many domains can present the most complete description of the phenomenon under investigation when both quantitative and qualitative data is employed.

A simple example is the state of school buildings. Much statistical data about buildings is provided through DISE. At the simplest level this is a question just of whether a building exists or not. The DISE data can be compared with ground reality with no ambiguity, an objective fact. The subject becomes slightly more involved when we assess the condition of a building which does exist – is it ‘sound’, suitable for human use? Subjective judgements must be made about the criteria used as the basis for collection of quantitative data. At this level that may not be too hard – perhaps that the building must have a roof and walls\(^\text{52}\).

At another level is the question of whether the building provides an environment conducive to education – a much more subjective matter. We can, of course, define criteria and then collect numerical data, alternatively we can collect numerical data just on the basis of an assessor’s impressions. In the first instance the criteria are explicit,

\(^{52}\text{These are not matters of theoretical speculation in the Indian context. Schools exist without buildings, and school buildings without roofs. DISE provides statistics on both these matters.}\)
open to disputation and refinement and there is likely to be a degree of consistency when they are applied by different assessors. In the second the basis for the assessor’s judgement may not be sharply defined even in the assessors own mind. Either way the numbers ‘measuring’ the degree to which a building is conducive to education are more likely to be disputed by those who examine the issue closely than are data about whether or not the building exists. Nevertheless putting a numerical value against an attribute suggests an objectivity that may not be justified.

Objectivity implies a description/measure independent of a particular observer, and quantitative data is often associated with objectivity. But as the example above illustrates such an association is not always warranted.

The discussion of literacy in a later chapter illustrates the same issue in connection with literacy rates. Apart from the (serious) question of whether there has been reliable collection of data by following the prescribed procedures there is the more fundamental issue of what those procedures assess. That is, on one’s definition of literacy and the capacity of the agreed procedures to measure just that.

As with the question of whether a building provides an educationally conducive environment we can attempt to turn any data into quantitative form. The questions that should be asked though, are why; and, in doing so, what’s gained and what’s lost? Consider gathering peoples’ views on schools: we could do this by conversation and gather qualitative data or collect quantitative data by, say, use of one or more Likert type scales. In seeking to understand the working of elementary schools the researcher is interested in the views of individuals freely expressed; neither constrained nor influenced by the request to respond to set questions. A useful Likert scale can be constructed after preliminary investigation has mapped out the range of opinions in the domain of interest. It can they be employed to measure the extent to which those ideas are held in a larger population.

There was an interest in knowing what individuals may allude to, without (at least initially) speaking plainly. It was found during Master’s research that this was sometimes the initiator to discussion that elicited significant information when dealing with sensitive issues such as mismanagement of funds.

For these reasons much of the data collected during fieldwork is qualitative gathered via conversation and interview as well as simple observation. The notion of ‘qualitative research’ outlined above falls within the descriptions widely given in the literature.

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53 free ranging or guided by a set of questions
Qualitative research according to Berg (2007 p7) seeks answers to questions by examining various social settings and the individuals who inhabit those settings. Glesene and Peshkin further elaborate on this. Their view is that qualitative researchers deal with multiple, socially constructed realities or “qualities” that are complex. They regard such research as coming to understand and interpret how various participants in a social setting construct the world around them. To make their interpretations, the researchers must gain access to the multiple perspectives of the participants (Glesne et al. 1992 p6). To do this one must look beyond the ‘public’ and ‘official’ versions of reality, in order to examine the unacknowledged or tacit understanding as well. Jorgensen adds to this the view that social life should be studied as it occurs, in natural settings rather than ‘artificial’ ones created only for the purpose (Jorgensen 1989 pp301 - 302).

The scope of qualitative research is very wide and the forms of data collected similarly varied. Many particular sub-genres of qualitative research have been defined and written about. They deal with the approach to collecting data (and research intent), ways of handling data and issues to do with dealing with people. Some of these which seem pertinent to this research are dealt with briefly below under the headings (i) Participant Observation (ii) Intervener/Reformer, (iii) Interviews (iv) Ethics/Ethical Codes and (v) Reciprocity.

(iii) Participant Observation

Several writers note that participant observation ranges across a continuum from mostly observation to mostly participation. It can be the sole means of data collection or one of several. Although the researcher’s actual participant-observer role may fall at any point along this continuum, he/she will most likely find themselves at different points along that line at different times in the data collection process (Glesne et al. 1992 p40; Maxwell 2005 p55). The researcher’s role in the research varied from plain observation to participant observation.

The researcher attended local festivals in Rajasthan and cultural events in Himachal Pradesh to gain an insight into the culture of the communities by becoming acquainted with its local history. Such material can help build the historical and cultural context for observations and interviews. (e.g. Glesne et al. 1992 p54; Wolcott 2008 p139). The researcher had some familiarity with Rajasthani culture having had several years of secondary schooling in Jaipur with students from all over the state. In Banswara district, where the locals didn’t speak Hindi she found she could understand their conversation.
as she had played with children speaking that dialect\textsuperscript{54} when young. Likewise in Chamba district of Himachal Pradesh, though all spoke Hindi, many preferred to converse or respond in their mother tongue, Chambayali, a dialect with such similarity to Punjabi (one of the researcher’s native languages) as to make translation unnecessary. Participant observation focuses on the meaning of human existence as seen from the standpoint of insiders (Znaniecki, 1934, cited in Maxwell 2005 p14). It is very important to have a basic knowledge about the people and the area where the research is being conducted. As Berg explains: “Knowledge about the people being studied and familiarity with their routines and rituals facilitate entry as well as rapport once entry has been gained” (2007 p94).

Participant observation provides the opportunity for acquiring this status of a “trusted person”. You develop a quality of trust with others that motivates them to tell you what otherwise they might not (Glesne et al. 1992 p39,40). The researcher found daily travel with Pratham workers and teachers helped in establishing a stronger relationship whereby information was made available to the researcher that otherwise would not have been revealed.

Glesne et al write that the participant observer should consciously observe the research setting; its participants; and the events, acts, and gestures that occur within them and note what is seen, heard, felt, and thought. (Glesne et al. 1992 p45).

Participant observation also meant adapting to unforeseen circumstances and utilising unanticipated opportunities to gather information. The fieldwork program was planned in detail, including a visit to India to clarify ground level detail and consolidate contacts, six months prior to the fieldwork proper being commenced. Just as an adjustment that restricted work was needed due the situation in Bankura district, serendipitous opportunities to extend work were taken up. One such was the offer to visit schools and hold discussions in Karnataka. Another arose in Himachal Pradesh. While the researcher was staying in a small town close to Shimla (capital of Himachal Pradesh) she observed that downhill from her residence lived two poor migrant families from Bihar. Their house did not even have provision of electricity. Both young and the old were observed waking up very early each morning: children getting ready and sitting down to study by a lamp while their parents were busy with their chores. The researcher went and spoke to the family, explaining her interest in education, followed by a conversation rather than a formal interview. The parents informed the researcher that

\begin{footnote}
\textsuperscript{54} Bagri - a dialect of Rajasthani
\end{footnote}
they were illiterate but that their children were doing exceedingly well at school. The parents would return home after sunset while the children reached home around 3.00 pm after school. The researcher noticed the children spending their time in a mix of play and study while on their own in the absence of any parental guidance\textsuperscript{55}.

Observation played an important role in this. The researcher found that in many instances she found clues to school performance by looking carefully without the need for initial discussion. In Rajasthan it was not uncommon on entering a school to observe students playing while teachers engaged in activities quite distinct from teaching; on many occasions just sitting while on other occasions it was observed that students were working in the classrooms but under the direction of volunteers working for Pratham while the teachers sat in a different room simply chatting.

In Rajasthan the researcher initially tried to interview students in their classrooms but realised that many students were reluctant to answer any questions. Not knowing whether this was inherent shyness or related to the setting the researcher decided to conduct individual interviews with students either at their homes or within schools but without the presence of a teacher. In classrooms the researcher sometimes altered her role from just being an observer to being a participant: the researcher introduced herself to each class she visited, talked to the class about her background, asked and answered questions and sometimes conducted short lessons. She learnt from experience that at least the self introduction was very important as even though the teachers in the class knew who you were and why you were present the same was usually not the case for students. After making an introduction the students were less likely to be distracted by the researcher’s presence - not wondering about the stranger in the room and speculating that it may be to check on them or their teacher. In the self introduction the researcher often spoke briefly about Australia (kangaroos, cricket team) which not only engaged the students but reassured them that, though speaking in Hindi, she was not a local official there to make judgements about them. One can also then interact more easily with students, as they know who you are. These observations from experience are backed by similar advice from Glesne and Peshkin (1992 p43). Apart from one or two schools where teachers did not show much interest, the practice was for the researcher to spend time in classrooms listening to students read, observe them write or carry out some basic arithmetic - the exact tasks depending on the grade level.

\textsuperscript{55} Though the potential value of pursuing serendipitous paths is established (the well known cases of Becquerel and radioactivity or Fleming and penicillin are examples) most become dead ends and the researcher must be judicious in avoiding distraction from planned work.
A number of scholars discuss ways in which photography can enhance observation, and provide strikingly descriptive data that can include the setting and research environment (see e.g. Glesne et al. 1992 p51; Wolcott 2008 p141; Hitchcock et al. 1995 p 136). Lewis Hine, trained as a sociologist but remembered as a photojournalist, found photos more effective than text in conveying the situation of US child labor, saying, “If I could tell the story in words, I wouldn’t lug a camera” (quoted by Stott, 1973, cited in Wolcott 2008 p141). The researcher used a camera during her fieldwork after seeking the permission of the participants and found photographs taken during the research useful in supplementing her field notes.

(iv) Intervener/Reformer
Rather than trying to be an objective observer, a researcher may decide to take an active role in the setting in which they are working. The role of intervener/reformer may be assumed by the researcher during the course of their work as a result of events that transpire. Glesne and Peshkin discuss situation in which, based on their work, researchers may attempt to put right situations that they judge to be wrong. They point out that when others trust you, you receive the privilege of learning from them but also the burden of learning things that are problematic at best and dangerous at worst (Glesne et al. 1992 p114).

The researcher during her fieldwork was confidentially provided with information about corrupt practices related to mismanagement of funds. This created a dilemma as raising the matter with the institute’s administration or with civil authorities could well result in her informants losing their jobs while not remedying the situation. But on the other hand she was reluctant to see the corrupt practices continue. Weighing these factors and considering that no direct harm was being caused to individuals she did not break the confidentiality of her informant but wrote about it in her thesis where the names of teachers, institutes are anonymous. These issues are something which have commented upon by many writers. Hitchcock and Hughes emphasise the importance of maintaining anonymity when using confidential documents by eliminating any kind of material or information that could lead others to identify the subject or subjects involved (Hitchcock et al. 1995 p51). Ball’s view is that if what you learn relates to the point of your study, you must explore ways to communicate the dangerous knowledge while fully maintaining the anonymity of your sources (cited Glesne et al. 1992 p114). Such advice is consistent with other researchers who suggest that continual protection of confidentiality is the best policy.
In the course of this research one instance of possibly inappropriate conduct by a teacher was observed and brought to the notice of appropriate authority.

(v) Interviews
Interviews provide a means for the researcher to gain information directly from participants. Interviews may be highly structured, semi-structured or open. The researcher will normally have a particular topic about which they wish to gain information. They may decide to frame a set of questions whose answers they believe will provide the information they are seeking. In the structured interview that follows participants may do no more than give simple responses to the questions. This is not so different from asking the participant to complete a questionnaire. Becker takes an interesting example in looking at the reasons for selecting between use of a questionnaire or interview. He suggests that if one is interested in knowing how frequently a subject smokes marijuana then one may effectively use a questionnaire survey, but if one is interested in subjects sensation of marijuana smoking, a more effective means of obtaining this information will be an open-ended interview (Becker (1963) cited in Berg 2007 p35). There are several potential advantages of an interview. One is that it can allow the participant to provide information about which the researcher was totally ignorant - and as such could not have been included in framed questions. An interview also allows the participant to seek clarification from the researcher, and vice versa. In a semi-structured interviews the researcher framed a small number of general questions to guide the conversation to the areas of research interest, but prompted each participant to talk freely and then followed up matters of interest. When the investigators are interested in understanding the perceptions of participants and of learning how participants come to attach certain meanings to phenomena or events, then interviewing provides a useful means of access. The questions asked by a researcher may be fully established before interviewing begins and remain unchanged throughout the interview. Alternatively questions may emerge in the course of interviewing and be added to or replace the pre-established ones. Such a process of question formation is usually seen as the better one to follow in qualitative inquiry (Glesne et al. 1992 p64). Spradley emphasizes the same point when writing that, in ethnography, as far as possible, both questions and answers must be discovered in the social situation being studied (1980 p32).

The researcher used semi-structured interviews while interviewing teachers, students and government officials. While each interview started in a similar manner the interviewees had freedom to range their answers beyond what was directly implied by
each question in the manner advocated by Berg (2007 p33) and hence, while matters covered were broadly the same, from interview to interview the questions were not asked in a systematic and consistent order. Though working from a set of interview questions the researcher often asked extra questions depending on the responses of the interviewee. There were many occasions when the researcher had to change the course of questions in order to gain a better understanding of what was being said.

One such example occurred on the researcher’s arrival in a two-teacher school in Rajasthan and noted that one of the teachers was about to leave for lunch. After interviewing the remaining teacher, the researcher asked when her colleague would return as the researcher planned to interview her as well. The reply from the teacher was, “Oh, if you waiting for her then don’t as Madam is not going to come back because she is fasting today and would spend rest of the day at her home.” This leads to further questions, thus extending the interview beyond the areas covered by the set questions.

In discussing interviewing Glesne and Peshkin make the obvious statement that a lot depends on the rapport which the interviewer develops with the interviewee. Interviewing, they point out, brings together different persons and, at extreme, a clash or harmony of personalities. As the researcher moves from respondent to respondent, the nature of the interaction will change (Glesne et al. 1992 p75). Teachers in Himachal Pradesh were generally welcoming and spoke openly about issues that have played a key role in improving education standards in the state. Because there was a general level of comfort and rapport developed in most of the schools the researcher visited many teachers did not hold back their thoughts and went beyond the interview questions, as in expressing their belief that though Himachal might be doing well they would like to visit states such as Kerala that were doing much better.

All the interviews were tape recorded after obtaining permission of the participants. Taping can bring its own difficulties. Moyra Dale recalls an instance when taping during her research:

“One older girl was very reserved, warning the others, “She wants to do research on us!” and with others it quickly changed into sending greetings and thanks to their teacher and I decided that it did not seem expedient to push the idea further” (Dale 2002 p82).

To help avoid any such problem the participants were asked not to give their name while interviews were being recorded; this was done to maintain the anonymity of the participants.
The researcher conducted both individual and group interviews. The advantage of individual interviews is that the respondent can openly state their views whereas they may be apprehensive of saying some things front of others. However Berg talks about advantage of group interviews:

“a far larger number of ideas, issues, topics, and even solutions to a problem can be generated through group discussion than through individual conversations. Indeed, it is this group energy that distinguishes focus group interviews from more conventional styles of one-on-one, face-to-face interviewing approaches” (Berg 2007 p69).

On the other hand Moyra Dale (2002 p81) and Bogdan & Biklen (2007 p109) each point out there is also a disadvantage to group interviews as invariably one or two individuals dominate the discussions, particularly answering any questions. Dale further elaborates on this by giving an example:

“I tried to ask the quieter members for their contribution whenever possible; sometimes they would merely indicate their agreement with what others had said” (Dale 2002 p81).

A particular problem with group interviews can be the embarrassment in sharing important, but personal, experiences in a group (Bogdan et al. 2007 p109). Group interviews conducted by the researcher were mainly with parents and no such problems were encountered. The researcher was aware that such a problem might arise while interviewing girl students so most of these interviews were conducted individually, particularly with girls who were known to have faced some problems in their personal lives. Girls’ participating in group interviews were those who had dropped out of school after completion of year 8 or at higher level. Teacher interviews were usually conducted individually but some group interviews were also conducted when that better suited the teachers involved. In a few such group interviews with teachers the researcher noted that few divergent views emerged with individual teachers looking at one another for reassurance, often followed by assenting comments from others in the group. While the researcher never experienced a situation where a sole person was talking and dominating the whole group, when visual reassurance was sought followed by general assent to remarks, it was hard to know the extent to which what was expressed genuinely reflected consensus views or whether there was reluctance to disagree in front of an outsider. There were also group interviews where teachers disagreed with each other, in one case quite vigorously.
(vi) Ethics/Ethical Codes

Cassell and Jacobs observe:

“A code is concerned with aspirations as well as avoidances, it represents our desire and attempt to respect the rights of others, fulfil obligations, avoid harm and augment benefits to those we interact with” (Cassell and Jacobs (1987), cited in Glesne et al. 1992 p110).

In general, research codes of ethics address individual rights to dignity, privacy, and confidentiality, and avoidance of harm. Through informed consent, potential study participants are made aware of three basic issues regarding their role in the study: (i) that participation is voluntary, (ii) their attention is drawn to any aspect of the research that might affect their well being, and (iii) that they know they may freely choose to stop participation at any point in the study (Diener and Crandall (1978) cited in Glesne et al. 1992 p112; Robert Burns cited in Jorgensen 1989 p18).

The appropriateness of informed consent, particularly written consent forms, however, is a much debated issue that accompanies discussion of codes of ethics by qualitative inquirers. Moyra Dale in her thesis points out how Fluehr-Lobban argues against a view of informed consent which reduces consent to merely signing a form. Her experience in the Sudan and elsewhere in the Middle East is similar to Moyra Dale’s experience in Egypt:

“Informed consent does not translate literally and directly into Arabic, or I suspect many other languages. But making honest attempts to talk about the nature, course, and research funding and allowing a relationship to unfold that may even permit a participant’s withdrawal from research is more ethical and probably results in better research.

Informed consent does not require forms. Indeed, much of the anthropological research, using methods of participant observation, would mitigate against using forms...........I felt fear that informed consent, when mechanically applied using a form or some verbal formula, becomes more of a protection for the researcher than the researched....it protects the researcher against charges from participants that they did not understand fully the intent or outcome of research” (Fluehr-Lobban (1998) cited in Dale 2002 p101).

In relation to the current research this is to some extent a moot point, as the University’s guidelines for research with humans specify the way participants will be contacted and their consent obtained and these were, of course, followed. However regulatory requirements alone cannot ensure ethical conduct. On the question of informed consent the researcher also took note of the guidelines published by the Indian National Committee for Ethics in Social Science Research in Health, which are used in other Indian social science research. These recognise that it may not be possible to obtain written consent (Section IV 2.2), but specify in detail that potential participants must be informed about the research in language which they understand. The guidelines also require the researcher to be aware of and respect the social and cultural backgrounds of the participants (Section IV 1.5). When children under 14 are involved in research the
guidelines require the researcher to ensure that the children themselves agree to participate as well as obtaining consent from parent/guardian (National Committee for Ethics in Social Science Research in Health n.d. Section IV 2.8).

(vii) **Reciprocity**

Scribner and Cole reflected on their experience in Liberia:

> “Foreign researchers today are not always welcome in village communities in the Third World. We ordinarily travel to such places pursuing questions that originate in our own cultural and professional settings, questions that may have little relevance or interest for the people we are among. In such cases, the benefits and gratification of research are entirely one-sided” (quoted in Glesne et al. 1992 p102).

Glazer defines reciprocity as “the exchange of favours and commitments, the building of a sense of mutual identification and feeling of community” (quoted in Glesne et al. 1992 p122). As research participants willingly open up their lives to researchers - giving time, sharing intimate stories, and frequently including them in both public and private events and activities - researchers become ambivalent, alternately overjoyed with the data they are gathering, and worried by their perceived inability to reciprocate. The important questions to consider here are: what will each party to the study gain from having taken part? What do they have to invest in time, energy, or money? Is the balance equitable?

The researcher agrees with Glesne and Peshkin that it might be very hard to reciprocate in a way that mirrors participants contribution. The researcher tried her best to reciprocate by discussing at length with Pratham workers ideas for curriculum design, especially the use of “hands on” teaching methods - something being promoted in SSA attempts to reform pedagogy. The researcher also provided copies to interested educators of teaching materials she possessed. She tried helping the parents, especially those who were waiting for scholarships for their disabled children, by raising their concerns and problems with the Pratham workers.

**Practical details of fieldwork**

Being born and raised in India and having studied in four different Indian states makes the researcher in some sense an insider but from several other standpoints also an outsider; for though understanding the general social milieu, state schools and students attending them (including the problems they often encounter) are outside the researcher’s first hand experience. Further, the researcher has lived and worked for eight years in Australia and, like every returning NRI\(^56\), is viewed with ambiguity by locals.

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\(^56\) **Non Resident Indian** - both a common descriptive term and a legal entity.
When conducting research at times there was a level of initial suspicion and reluctance to cooperate but because of the researcher’s Indian ethnicity and being a fluent Hindi speaker these quickly dissolved. On some occasions having studied and lived in Australia helped change attitude of the participants. Teachers would often say, “We will tell you the truth because you have come from so far and chosen to work in our state” and parents, “it is good you have come from far off land. You are the right person to assess our and our children’s problems. Maybe things would change for good when you write about it”. If it was not for direct contact with the participants, the researcher would not have been able to capture these aspects about the participants’ lives.

Previous research experience in India (for a different project conducted in India in a state school) led the researcher to avoid the use of a questionnaire. In that study questionnaires had been prepared, and translated into Hindi, with items seeking to elicit detailed information about schooling. It was found difficult to insist that teachers completed these individually and in many cases identically completed questionnaires were returned by the majority of participants. Thus for this research the methods of interviews and observation were employed instead.

In Rajasthan three districts that were chosen on the basis of their literacy rates: Jaipur, Karauli and Banswara. During the fieldwork in both states researcher was always accompanied by a Pratham NGO worker. In Rajasthan the researcher was initially based in Jaipur and travelled from there to rural areas around Jaipur and to Karauli district. The researcher then spent two weeks based in Banswara, some 500 kilometres from Jaipur, and from there travelled to rural schools in the district. A minimum of half day was spent in each school, though the aim was a full day, but the distances travelled (30 km to 120 km) and the condition of the roads made a full day in every school impractical. A 30 kilometre trip could take 2 hours.

On several occasions fieldwork in Rajasthan was disrupted due to disorganisation on the part of schools. Though the date for the school visit would be fixed following discussion and mutual agreement at least a week in advance of the visit, there were many times when the researcher made a reminder call on the day prior to the agreed date and the response was “oh, tomorrow is principal power holiday” - meaning the school was closed as a principal has the power to declare three holidays in a year. On other occasions a field visit was cancelled due to year 10 and 12 Board examinations. This usually happened in schools which had two teaching sessions per day - morning session being used for primary classes and those in the afternoon for the secondary school.
During the Board examination period even primary school teachers were given a duty in their own or in other schools, and some schools during this period declared holidays for the primary section. No outsider was allowed to enter the school when the examinations were being conducted.

On other occasions schools in Rajasthan were inaccessible because of the monsoon rains and it was not recommended to travel by car in case the car broke down or got stuck in badly damaged roads. At such times the local NGO workers or local teacher would take the researcher on their motor bike to the remote school. The researcher also used local mini-buses and auto-rickshaws to travel to schools in Jaipur district in Rajasthan. It was not uncommon to have an auto rickshaw packed with 20 teachers as this was a common mode of transportation used by teachers travelling together when their schools were ‘close’ to one another (i.e. within, say, a 5 km radius).

In Himachal three districts that were chosen on the basis of their literacy rates: Shimla, Solan and Chamba; additionally some interviews with parents were conducted in Shimla Rural district. The researcher was initially based in Shimla district. On the days when fieldwork was conducted in Shimla and Solan districts the researcher would travel everyday to the schools from a residence in Mashobra, 8 kilometres from Shimla. The distances travelled varied (5 km to 70 km) to reach a school. As in Rajasthan a minimum of half day was spent at each school and here too the distances and nature of roads caused travel times that sometimes prevented a full day’s work in a school. Unlike Rajasthan it was not rain and poor road conditions, but narrow, winding, mountain roads that made travel slow - sometimes over an hour to travel just 10 kilometres. The largest distance travelled for fieldwork was from Shimla to Chamba - 400 kilometres.
covered during two full days in a car, with an overnight stop. The researcher spent one week based in Chamba town while visiting schools in surrounding hills.

Forty-one schools were visited in total: 22 in Rajasthan and 18 in Himachal Pradesh. In some, only observation was possible but a total of 128 people were interviewed using in-depth, semi-structured interviews - some individually, some in groups. The majority of interviews with teachers and girl students were conducted individually; interviews with parents were usually conducted in groups. This was done essentially by choice of the participants; however there were a few group interviews conducted with teachers and girl students and some individual interviews with parents of students. All the interviews were tape recorded after obtaining participants permission.

Table 8 Fieldwork details

<table>
<thead>
<tr>
<th>Himachal Pradesh Districts</th>
<th>Blocks/tehsils visited</th>
<th>Number of schools</th>
<th>Interviews teachers</th>
<th>parents</th>
<th>girls</th>
</tr>
</thead>
<tbody>
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<td>14</td>
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</table>

Himachal: 18 schools visited; interviews with 29 teachers, 16 parents, 20 girls

<table>
<thead>
<tr>
<th>Rajasthan Districts</th>
<th>Blocks visited</th>
<th>Number of schools</th>
<th>Interviews teachers</th>
<th>parents</th>
<th>girls</th>
</tr>
</thead>
<tbody>
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<td>4</td>
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<tr>
<td></td>
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<td>4</td>
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<td>0</td>
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<tr>
<td></td>
<td>Chaksu</td>
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<td>2</td>
<td>0</td>
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<tr>
<td>Banswara</td>
<td>Ghatol</td>
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<td>8</td>
<td>19</td>
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<tr>
<td>Karauli</td>
<td>Toda Bhim / Todabhim</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Rajasthan: 22 school visited; interviews with 34 teachers, 22 parents, 7 girls

All the teachers were interviewed in their schools. The researcher attempted to interview all the teachers present in the school on the day of the visit, the only exception to this was if teachers were busy or reluctant to be interviewed. However a more significant factor limiting the attempt to talk to all teachers was teacher absenteeism.

Depending on its availability and convenience for teachers interviews were either conducted in the principal’s room (with principal absent) or in a classroom while students did their work, though on some occasions they were conducted in the open space outside classrooms. In the latter cases teachers left the students alone in the classroom - at times with assigned work and at times without it. In Himachal Pradesh,
with two exceptions, teachers were interviewed in their classes. The exceptions were
group interviews: in one instance it was conducted in the principal’s room (with
teachers having assigned work to their classes); in the other case it was during lunch
break.

The duration of teacher interviews varied but generally lasted from 10 to 30 minutes.

In all the interviews the researcher began by introducing herself followed by “small
talk” with the aim of putting participants at ease. She also thanked those listening for
their voluntary participation, said a little about the research and then spoke briefly about
her background, with attendance a village school being the start of her education. In
most instances involving parents and teachers questions came back to the researcher at
this stage and a conversation was started. Sometimes this also happened with students
but more often conversation with them began in response to direct questions. There was
no set list of questions; the researcher kept in mind the issues central to the research and
posed questions relevant to these during the conversation if they hadn’t arisen from
what participants had brought forth. At the beginning of interviews, with adults and
students, questions were kept general with the intent of encouraging participants to talk
freely and generally about education and schooling with the aim of gaining their view
inhibited and uninfluenced by the researcher’s questions. This generally worked well
with parents and students, some teachers seemed initially reluctant to talk freely but all
‘opened up’ as the conversation progressed. The initial reluctance, particularly in
Rajasthan, was sometimes connected with a suspicion that the researcher might be
‘from the government’ or report what was said. This despite the very explicit
introduction stating the researcher’s background and independence.

Parents were very cooperative and hospitable and tried answering as many questions as
the researcher asked without hesitation. Parent interviews were conducted the way they
preferred, either individually or in a group. Usually group interviews consisted of 2 or 3
parents, the only exception of a larger group interview was that conducted with Bhil parents in Banswara district of Rajasthan. No pre-determined time limit was set on the
interviews - they continued until the topics of conversation were exhausted or

57 At one school, soon after the researcher arrived the single teacher present was joined by two colleagues
who arrived rapidly on a motorcycle and begged not to have their absence reported to the authorities. At
another a teacher, who had been observed doing his own study while nominally conducting a class,
used part of an interview to quiz the researcher about basic aspects of SSA “because I should know
these, and I might be asked them when applying for a position.”

58 Bhil - group list as a scheduled tribe.
participants (especially teachers) were required elsewhere. Some interviews were short lasting up to 10 minutes whereas many went up to 30 minutes.

In Rajasthan parent interviews were conducted in their homes with the sole exception of one interview conducted on the school premises in Karauli district. No other parent interviews could be conducted in Karauli district as appropriate arrangements could not be made. In Himachal Pradesh parent interviews were conducted in the districts of Solan, Chamba and Shimla Rural. Most interviews were conducted in parent homes with the exception of a few parents in Solan district who worked in schools or were active members of School Management Committees.

Both current school students and those who had recently dropped out of school were interviewed. The intention was to interview those who had dropped out before completing year 8, however while doing this in Chamba district contact was made with a number of young women (associated with the NGO) who had dropped out in later years and the opportunity was taken to interview them as well.

Students were generally interviewed in their school, but if parents had granted permission for their children to be interviewed and the children were not in the school on the day of the visit, the researcher, accompanied by the NGO worker, went to the house of each absent student to conduct the interview. Girls who had dropped out of school were interviewed in their homes through arrangements made via the NGO.

In contrast to the parents and teachers it generally took some time to settle the students. They were a bit anxious in the beginning but slowly settled. Interviews were conducted individually, in the absence of parents or teachers, except in one case where two girls were interviewed together because they preferred it that way. Some interviews were as short as 5 minutes and some went up to 20 minutes.

In Rajasthan interviews with students were conducted only in Jaipur and Karauli districts as arrangements could not be made to interview girls in Banswara district. In Himachal Pradesh interviews with girls were conducted only in Chamba and Solan districts. The reason for this being that in Shimla district the researcher did not come across girl students who had dropped out of school before completing year 8 nor were the Pratham workers aware of any such students.

Interviews with state education officials and senior NGO staff were conducted in English; almost all others, with parents, students and teachers were conducted in Hindi. The two locations that were exceptions to this were in Banswara district of Rajasthan and Chamba district of Himachal Pradesh. In both these districts local dialects were
widely used. The researcher was accompanied by local NGO field staff who spoke these dialects. However in Banswara the researcher found that when she spoke in Hindi those being interviewed understood, though they replied in Bagri. The researcher then found she did not need the interpreter as she had earlier exposure to Bagri, as mentioned previously, and clearly understood what was being said. A like situation applied in Chamba where many people being interviewed, though they understood Hindi, replied in Chambyali - a dialect that is very close to Punjabi: one of the researcher’s mother tongues.

After each day in the field the researcher would write up detailed notes from the interviews after listening to the recorded interviews. This process took several hours after every day’s fieldwork. After writing up the field notes researcher would have a long discussion with the NGO worker to cross check if all points have been included.

The content of the conversations was coded by reading through the transcripts (and in some cases going back to recordings, because nuance and intonation were sometimes important) and noting the presence of significant words, or phrases with similar meaning, and modifiers of each [e.g. “teacher” (present/absent; involved, etc); “VEC” (exist, knowledge of, active, etc); “student” (attend/absent, lazy/keen, like/dislike_school, etc) “MDM” (good/bad, etc)]. This was time consuming but focused attention on the content of what had been said and helped weigh the relative amount of support for each issue. This was very much a matter of judgement rather than precision - while some speakers spoke forthrightly on all subjects, many only alluded to some topics. This stage was important in arriving at the fieldwork summaries presented in chapters five and six, and especially in selecting representative quotations that are part of those chapters.

Care has been taken to preserve participant privacy. No villages are identified, data is associated with a block or a district. All names of participants have been altered - names used in chapters five and six are not those of any person interviewed.

The researcher is aware that there is not a unitary methodology running through the research but given the multi-dimensional nature of the issue being examined she does not see that as a problem, perhaps it is a necessity. She has given thought to the methods used, as also to their connections with the type of knowledge acquired, but has tried to avoid laying out “methodology in spades”. The materials she has read which she found most useful have given clear, but generally brief, accounts of research methods used; without engaging in tortuous discussion of their philosophical background or implications; and then got on with the business of presenting findings and discussion.

The methods used were successful in collecting statistical data from the sample of schools visited and in obtaining anecdotal and attitudinal information from a large
number of interviewees. Some obvious improvements that could be made within the same framework would be to interview a larger number of participants of all types; to more closely correlate student, parent and teacher interviews and to more vigorously pursue access to public servants in Rajasthan. One worthwhile extensions to the methodology would be to spend an extended period in a number of communities as the insight from such ethnographic research would likely provide finer grained understanding of the social dynamics affecting education at the village level. An extension of a different type would be to use a questionnaire, carefully constructed to encompass the major issues emerging from interviews, to collect information on standard items from a large number of people. Earlier research revealed two significant problems with the use of a questionnaire. Among parents the level of literacy both restricted the proportion of parents able to participate (thus resulting in a non-representative sample) and hesitancy about one’s literacy capability encouraged a extensive degree of collaboration in completing the written survey. The latter also occurred with groups of teachers - not on account of limited literacy but, so it seemed from overhearing conversation while questionnaires were completed, from a degree of anxiety about ‘giving the right answer’.

A note on the researcher - positionality and reflexivity.

Being a girl and born into one of the most patriarchal societies in India – a Punjabi landlord family - the researcher’s upbringing and exposure to learning has been very different from that of the majority of her society and especially of the female poor alluded to above. After beginning education in the village school she went to an elite convent and to prestigious boarding schools both in and outside Punjab. She undertook studies for her Bachelor and Masters Degrees from one of the leading colleges in India. In this milieu her friends came from rich business class or civil service families. Despite their social position some of these girls with whom she mixed were prevented from even applying for the best colleges in the country simply for the reason that those colleges were co-educational. Patriarchal attitudes run deep and would seem to be one of the factors behind poorer educational outcomes of females compared to males.

Spending her school holidays in rural Punjab was a rich experience and made her aware of the hardships faced by the poor, and especially their children, in India.

Similarly there were many groups (Marwar, Bhil etc) encountered during the research, each with distinct cultural attitudes that impinge on education. It would be desirable to follow this network of influences but, for some, secondary sources are, at best, sparse. Further this is not the core of the research and restrictions on thesis length are a limitation. In connection with Marwar society patriarchal attitudes are explored by Sahai (Sahai 2007) and the culture more generally in Politics of Patronage and Protest (Sahai 2006 particularly Pp16-27 & Chapter 2)
As a young child she wondered how those poor children lived their lives without access to adequate food and good education. She wondered how they managed to study while sitting on the jute sacks in the local village state school, and to survive without fans in the peak summer temperatures of over 40°C. The attitudes of their parents varied a lot. Each family had a different attitude towards the education of their children. Some parents contributed all the money they could get hold of towards their children’s education. Sometimes when she asked people working in her house, should she buy them new clothes they would say ‘I would appreciate if you can contribute the same money towards my children’s education’. Children of some adults who worked in the house never went to school as their parents put no value on education. However, most of the children she observed were lucky enough to enter the doors of the school. Though they learned by rote, they were fortunate compared to many who did not go to school at all. The latter either worked as domestic help, some as young as 5 years old, or looked after their younger siblings while parents were at work.

The importance of education as an ‘inherent good’ makes it the frequent subject of political slogans, together with programs for attaining its universality and raising its quality. However, ideas about what education is, about its value and for whom its worthwhile, vary widely. Parents (usually uneducated) who see no value in schooling deny their own children a formal education. Educated people, in positions of responsibility who hold minimalist ideas about education and, perhaps, doubt the need (or even the possibility) of quality education for all through their positions of influence affect the type of schooling experienced by vast numbers of children.

Childhood experiences and these reflections have motivated the researcher to investigate the large differences that exist in elementary education between two Indian states.

This research is for all those rural children and young girls, who without any fault on their part but due to the happenstance of gender and poverty, are deprived of education.

The real difficulty is that people have no idea of what education truly is. We assess the value of education in the same manner as we assess the value of land or of shares in the stock-exchange market. We want to provide only such education as would enable the student to earn more. We hardly give any thought to the improvement of the character of the educated. The girls, we say, do not have to earn; so why should they be educated? As long as such ideas persist there is no hope of our ever knowing the true value of education.

- Gandhi, 1942 cited in “True Education” (Gandhi 1962 p38)
Chapter 3  Overview of contemporary Indian education and its problems

India has 22 percent of the world’s population, but 46 percent of the world’s illiterates, and is home to a high proportion of the world’s out-of-school children and youth.
(Kingdon 2007)

Introduction

India has an area of about 3.3 million km$^2$ and a population (in 2011) of approximately 1.21 billion. The population is diverse ethnically, culturally, linguistically and in terms of religious affiliation. Twenty three languages are recognised in the Indian constitution$^{60}$, with Hindi as the official language and English recognised for official purposes. Hindus make up 80 percent of the population, Muslims about 14 percent along with significant numbers of Christians, Sikhs, Buddhists, Jains and others (Ministry of Finance 2002).

India is a republic with a parliamentary system of government. The nation is made up of 29 states$^{61}$ and 7 ‘Union Territories’ with responsibility for particular aspects of governance allocated to either the national government (“Union government”), to those of the states or jointly between the two. Many states are constructed on the basis of the dominant language in the area (e.g. Malayalam in Kerala, Tamil in Tamil Nadu, Bengali in West Bengal etc) though diversity still exists within each and in some cases agitation exists for creation of new states to accommodate specific minority linguistic groups within an existing state. A system of elected local government (“panchayati raj”) with up to three levels: village, block and district$^{62}$ (Pal 2004) exists to various extents in different states. The states vary greatly in both geographic area and population as well as in economic terms and measures of human development. The largest by area is Rajasthan (342,000 km$^2$) and the smallest Goa (4000 km$^2$). The most populous states are Uttar Pradesh (200 million) and Maharashtra (112 million) while the least populous are Sikkim (0.6 million) and Mizoram (1.1 million). Of the major states average per

60 Article 343, clause 1, of the Indian constitution states that “The official language of the Union shall be Hindi in Devanagari script”; clause 2 states that English will be used “for official purposes” for fifteen years and clause 3 provides for an extension of that period. Such extension has been enacted and is still active. Schedule VIII to the constitution lists the “languages of India” which in 2013 (as amended in 1967, 1992, 2004) includes 22 languages, including Hindi, but not English. These 22 languages have official status for such purposes as being allowed for use in public service exams. Article 348 requires that all bills, regulations, by-laws etc of the Union government shall be written in English as well as proceedings of the Supreme Court and every High Court. Though Hindi versions of proceedings are produced the English versions are the authoritative ones. States are free to choose any language (not necessarily from those in schedule VIII) as their official language(s) (Government of India 2013)

61 At the time the research was conducted India had 28 states. Telangana was proclaimed the 29th state in June 2014. Most of the state based national data sets used in this thesis employ the 28 states that existed between 2000 and June 2014.

62 “Block” – Development Block: a group of villages.

village level: gram panchayati; block level: panchayat samiti; district level: zilla parishad
capita income is highest in Haryana at ₹47,600 and lowest in Bihar (₹9,600) (Ministry of Statistics and Programme Implementation 2010) though there is great variation in every state. Likewise indices of human development show marked average interstate differences as well as intrastate disparities (Planning Commission 2007; Kumar 1991). Some connected with education will be outlined later.

Many other countries have linguistic and religious diversity and economic disparity across the population in a manner similar to India though not on the same scale, and India in addition has the divisions arising from caste. The origins of caste are disputed but are several thousand years old and in “ancient Hindu society divided the population initially into four (that later grew into five) mutually exclusive, exhaustive, hereditary, endogamous, and occupation-specific Varnas” (Deshpande 2000a) to each of which rules prescribed not just occupation but all social relations, so that caste (Varna) affiliation governed all aspects of a person’s existence. The Varna divisions are the basis of the groupings used in modern India’s policies that attempt to redress historical social disadvantage. However historically, as a more complex society developed, another set of occupational divisions, the Jati system, evolved and contemporary references to ‘caste’ imply the jati as well as Varna divisions. Jati involves thousands of divisions and while it is tempting to view jatis as subsets of Varnas this is misleading. Although in a broad manner jatis are associated with higher or lower Varna, the relation is not well defined so that a particular jati considered ‘backward’ in one state may not be so classified in another. It should be noted that ‘caste’ (Varna and jati) are aspects of Hindu society and that (a) there are other religions (Muslim, Christian, Sikh etc) which do not involve caste in a systemic manner and (b) there are indigenous groups who never became incorporated into the Hindu society or into other major religious groups. These adivasi or ‘tribal’ people are generally economically disadvantaged. For places in higher education, as well as in government jobs and some official positions a system of quotas exists for persons from “scheduled castes” (SC) and “scheduled tribes” (ST) This system is commonly referred to simply as ‘reservation’. No such reservation exists at school level but caste impinges on elementary and secondary education in a number of

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63 ₹: Indian Rupees. The amounts are about $800 and $160 respectively at September 2013 exchange rates

64 Though given the pervasive nature of the caste concept in a society which is 80% Hindu it is not surprising that elements of caste distinction sometimes enter other religious groups, be it due to the caste to which families belonged before converting from Hinduism, or to the caste connection of the occupations such people undertake.

65 Following passage of the 2009 Right to Education (RTE) Act (Ministry of Law and Justice 2009) with its requirement in section 12 that schools accept as 25% of their class 1 intake “children belonging to weaker section and disadvantaged group in the neighbourhood” there was public discussion to the
other ways. Interactions between students and between student and teacher, like much else in the village, are affected by the historically established inter-caste social relations. These change over time and since independence have been altered to some extent by targeted government programs aimed at reducing disadvantage. In schools there are programs that provide assistance, such as textbooks or uniforms, to children from ‘lower’ castes. This is sometimes a source of resentment among those not included in the program - on occasion to the extent that the state specified distribution is not implemented by the school. But the most significant linkage between caste and schooling is almost certainly the SC/ST association with economic disadvantage and the well known connections between that and educational outcomes.

The complexities of the interconnections of caste with gender and their joint impact on an individual’s economic status have been examined by Deshpande (2000a; 2000b; 2001; 2002; 2007).

The difficulty of making generalisations about human development in India are well illustrated by the health indices cited by Drèze et al (2007), which also show how sources of inequity are compounded. They give these figures for child immunisation rates:

<table>
<thead>
<tr>
<th></th>
<th>Tamil Nadu</th>
<th>All India</th>
<th>Bihar</th>
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<tr>
<td>Average, all children</td>
<td>90%</td>
<td>42%</td>
<td>11%</td>
</tr>
<tr>
<td>Children of Scheduled Tribes</td>
<td>26%</td>
<td>4%</td>
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These figures illustrate a general pattern whereby readiness of access to public services depends greatly on whether government (mainly state, but to some extent local) has given such services priority and accompanying investment and also on one’s position in the social hierarchy. Those in groups of low social rank (SC, ST, women) and in locations with neglectful administration may be disadvantaged on multiple criteria.

**Education**

In India responsibility for the various functions of government are divided between the union and state governments. The Indian constitution specifies three lists (Union, State,
and Concurrent) which set out the areas of responsibility for the two tiers of government. In parts of the country some of the State functions are devolved to varying extents to the local level – the panchayati raj. At independence in 1947 school education was on the State list but in 1976 was moved to the concurrent list (Bajpai et al. 2004) so that responsibility is now shared between the central and state governments though the precise division of responsibility is not always clear. In the words of Govinda and Josephine: “The role of the national government has been confined to formulate broad policy framework particularly with a view to maintaining quality standards and setting norms for utilization [of] resources channelled through centrally sponsored national programmes for development of education” (Govinda et al. 2004). The division of responsibility for schooling between these two tiers of government has been complicated in the past decade by two somewhat contrary tendencies: (a) that of the Union government to exercise greater influence on the conduct of schooling as it takes on a greater financial responsibility for the sector and (b) greater devolution of responsibility from state governments to local authorities. The tension between these is not just about who is in control of schools but resides also in intention and results. The Union government’s actions have been driven by recognition of recurring failure in the school sector: failure in educational coverage of the target age population and failure in educational quality. The move to increase local control of school level education is part of a wider impulse to build grassroots democracy and to eliminate bureaucratic delay and inappropriate decision making by placing power at the levels of society where the decisions have effect. In the particular case of education the argument is made that local decision making will improve educational outcomes by giving a degree of control over infrastructure, resources and staffing to those with an immediate interest in schools. Whether this is the actual result is a matter of dispute.

The contrast between intents and outcomes is also a strand in the history of the development of universal education since India’s independence. Article 45 of the constitution in its original version stated: “The State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years” (Ministry of Human Resource Development (no date)). The key word here is ‘endeavour’ as this set a directive principle for the state to follow, a target, but no requirement to achieve it. Crucially it did not establish a right to education for all children - one enforceable at law. That was only achieved sixty years later following decades of discussion and agitation (alongside slow progress towards the goal), by
amendment of article 45 in 2002 (Government of India 2002) and legislation to give it effect in 2009 (Ministry of Law and Justice 2009). In the intervening period successive five-year plans each stated the goal of total childhood literacy by plan’s end but, though slow progress was made, the goal was still far from achieved in 2010. Article 45 of the constitution was altered in 2002 by the 86th constitutional amendment to read “The State shall endeavour to provide early childhood care and education for all children until they complete the age of six years.” This substitution of one directive principle by another (and that applicable to a different cohort) might appear odd, but the 86th amendment also inserted a new clause 21A: “The State shall provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may, by law, determine” which does set out a right to education (RTE) (Ministry of Law and Justice 2009). The constitutional amendment of 2002 was made actionable by the Right of Children to Free and Compulsory Education Act passed by both houses of the Indian parliament in 2009 and signed into law in 2010. This act specifies a 55:45 division of financial responsibility between the central and state governments for the legislation’s implementation and sets out a framework for achieving quality infrastructure and teacher training (2010c). Although widely hailed as a (belated) landmark in the struggle for universal elementary education (UEE) the RTE act has also been attacked on such grounds as that it fails to guarantee sufficient funds for implementation, provides assistance to private schools but fails to cap fees and around concerns about ensuring quality of education and equity in provision to disadvantaged groups (The Hindu 2010a; The Hindu 2010b; The Hindu 2010c; The Hindu 2010d).

These concerns are among those which have persisted since 1947 with schooling under each state’s jurisdiction. Every state has established an educational bureaucracy directed by a state Ministry of Education while among the fifty Union Government Ministries education is the task of the Ministry of Human Resource Development with a department of school education within it (Government of India 2010). Most states, including Rajasthan, have long established legislation for compulsory elementary education, largely un-enforced, though interestingly education has not been compulsory in three states with high enrolment and literacy rates and the lowest rates of child labor: Kerala, Himachal Pradesh and Manipur (Bajpai et al. 2004 p11).

66 The 86th amendment also inserted a new clause into article 51A which begins “It shall be the duty of every citizen of India -”. The new clause (k) adds under that heading: “Who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.” (Ministry of Human Resource Development (no date))
Stages of school education

School education throughout India follows what is described as the “10 + 2 model” – ten years of primary and high school followed by two years (grades XI and XII) of study to complete schooling and take the exams for tertiary entry. That, however, is the only aspect of the organisation of schooling which is common across the country. The divisions Primary, Upper Primary, High and Higher Secondary are generally used but the number of grades that make up each division (as well as the age of initial entry to school) varies from state to state. For the purposes of this thesis “elementary” education is taken to include the ‘primary’ and ‘upper primary’ divisions. In general this means the first seven or eight years of schooling, a common pattern being five years of lower primary followed by three years at upper primary, and, in general, this roughly corresponds to the compulsory education age period of 6 – 14 years of age. The qualifications are necessary as there is interstate variation. There are four patterns of division between the primary and upper primary years as shown in table 10 based on 2005 data:

<table>
<thead>
<tr>
<th>Pattern</th>
<th>No. of states with pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Stage</td>
<td>The Upper Primary</td>
</tr>
<tr>
<td>grades</td>
<td>years</td>
</tr>
<tr>
<td>I - V</td>
<td>5</td>
</tr>
<tr>
<td>I - V</td>
<td>5</td>
</tr>
<tr>
<td>I - IV</td>
<td>4</td>
</tr>
<tr>
<td>I - IV</td>
<td>4</td>
</tr>
</tbody>
</table>

Adapted from (Ghatak 2008)

The connection between the primary and upper primary stages of schooling and the institutions in which education is conducted is also complicated. Primary and upper primary are widely conducted in different institutions, a matter of significance in terms of students’ completion of elementary education, but the separation is not universal. There are ‘elementary schools’ in which both stages are taught (more common in private schools than government ones) but in both instances the incidence varies between states. Union government policy is to have a primary school within 1 km of each habitation of 300 or more persons and an upper primary school within 3km. While
geographic variation exists (Govinda et al. 2008), by 2000 95 percent of India’s population had a primary school with one kilometre (Mathew 2005)\(^67\).

Institutional separation of primary and upper primary schooling can lead to ‘transition loss’ as some children don’t make the change to the new institution at the end of primary school. Fieldwork observations were that these arrangements differed in Himachal Pradesh and Rajasthan. In the former, when an upper primary section was co-located with a primary school there were always separate administrations. In Rajasthan when upper-primary and primary shared the same site there was always a common administration. Since 2003 data on transition rates have been compiled by NUEPA\(^68\) as part of DISE and show a generally upward trend since that time but appear at odds with earlier figures supplied by MHRD as quoted by Govinda (2008). The MHRD data show all India transition rates from 1991 to 1999 as declining from 89 percent at the start of the decade to 86 percent at its end (Govinda et al. 2008 p42). DISE data show the all India transition rate increasing from 64 percent in 2002-03 to 84 percent in 2008-09 (Mehta 2010 p146). There is considerable variation between states (2007-08: 98 percent in Kerala and Tamil Nadu, 70 percent in Bihar (Mehta 2010 p147) and lower rates for SC/ST students. The transition rate for rural students is still lower than that for those in urban areas (2007-08: 79 percent and 97 percent respectively) but the rate for girls is almost the same as that for boys. DISE figures are, nominally\(^69\), for all schools and as transition rates in private schools, where primary and upper primary classes are usually held in the same institution, tend to be higher than those for government schools this should be borne in mind in assessing the figures.

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\(^67\) Under the Education Guarantee Scheme (EGS) alternative schooling is being provided in “EGS Centres” in those smaller habitations which have at least 25 out-of-school children (Govinda et al. 2008). Since 2005 over 150,000 such EGS Centres have been ‘upgraded’ to formal primary schools - a matter which raises concerns about quality as the requirements for upgrade are minimal, including operating for 4 hours per day, possessing texts and other teaching materials and staff receiving 30 days training.

\(^68\) NUEPA - National University of Educational Planning and Administration
DISE - District Information System for Education
MHRD - Ministry of Human Resource Development (in central government)

\(^69\) Limitations on the collection of data, particularly in the early 2000’s are noted in a number of DISE publications (e.g. National Institute of Educational Planning and Administration 2005)
For the two study states DISE transition rates are:

Table 11 Transition rate (%) in research states

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Himachal</td>
<td>98.69</td>
<td>90.71</td>
<td>92.01</td>
<td>94.8</td>
<td>92.6</td>
<td>93.7</td>
<td>95.6</td>
<td>96.1</td>
<td>98</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>67.87</td>
<td>92.4</td>
<td>92.66</td>
<td>84.7</td>
<td>77.7</td>
<td>85.3</td>
<td>86.3</td>
<td>82.7</td>
<td>90.4</td>
</tr>
</tbody>
</table>

(data source: DISE State Report Cards for the years 2003-04 to 2011-12)

The effect of change of institution on retention rate was mentioned above. Apart from a changing desire of parents and students for the latter to remain at school, retention rates may tend to fall if there has been a large increase in enrolment of previously out of school groups. The reported rates may also be affected by the way records are kept or data collected - perhaps a factor in the large changes recorded for each state between 2003-04 and 2004-05.

Governance and financing of elementary education

(i) Governance

Primary and upper primary schools fall into three categories: government, private and ‘aided’ schools. Some government schools are under direct administration of state education ministries, some under control of local government. Aided schools are privately established, not-for-profit institutions that receive varying degrees of government assistance.

Table 12 Number of schools by provider type

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Government</th>
<th>Local Bodies</th>
<th>Private Aided</th>
<th>Private Unaided</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Pre-primary</td>
<td>34,597</td>
<td>54.4</td>
<td>18,369</td>
<td>28.9</td>
<td>4,359</td>
</tr>
<tr>
<td>Primary</td>
<td>332,565</td>
<td>43.3</td>
<td>359,772</td>
<td>46.9</td>
<td>19,593</td>
</tr>
<tr>
<td>Upper Primary/ Middle</td>
<td>118,026</td>
<td>43</td>
<td>80,327</td>
<td>29.2</td>
<td>17,616</td>
</tr>
</tbody>
</table>

Source: (Govinda et al. 2008) from (Ministry of Human Resource Development 2007)

The number of schools does not necessarily reflect the number of students within each sector – there is a high proportion of small government schools. In addition, as with all aspects of education, there is great variation between states. Thus, although the figures for private schools given above are modest, 2006 data on the percentage of children (of all ages) in private schools present a different picture in some states:

---

70 itself influenced by the value they ascribe to education, the perceived quality of education experienced, and a family’s immediate need for labor/income.
Table 13  Private school enrolment (selected states)

<table>
<thead>
<tr>
<th>State</th>
<th>Private School Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manipur</td>
<td>57%</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>45%</td>
</tr>
<tr>
<td>Punjab</td>
<td>37%</td>
</tr>
<tr>
<td>Nagaland</td>
<td>46%</td>
</tr>
<tr>
<td>Goa</td>
<td>45%</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>30%</td>
</tr>
<tr>
<td>Kerala</td>
<td>45%</td>
</tr>
<tr>
<td>Haryana</td>
<td>40%</td>
</tr>
<tr>
<td>Haryana</td>
<td>40%</td>
</tr>
</tbody>
</table>

A further ten states (including Himachal Pradesh and Rajasthan) had between 15 percent and 30 percent of students in non-government run schools (Pratham 2006). Indian children from lower caste and tribal families are less likely to attend private schools than are children from upper caste families. Girls too are disadvantaged. De and colleagues report a 2006 survey showing that 74 percent of private school students were male compared to 51 percent of students in government schools (De et al. 2009).

Nationally 20 percent of boys are enrolled in private schools and 17 percent of girls; however the gender gap is greater in some states. For the 7 – 10 age group there are large gender differences in private school enrolment in Punjab and Haryana:

- **Punjab**: 50% of boys, 43% of girls
- **Haryana**: 51% of boys, 39% of girls

The availability of private schooling even in economically backward areas was indicated by the 1999 PROBE survey in the poor northern states of Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh which found private schools with elementary sections in 17 percent of rural villages (Drèze et al. 1999).

The proportion of children in private schools (at elementary as well as higher levels) has been increasing, a trend attributed at least as much to dissatisfaction with government schools as to increased wealth and parents education aspirations for their children. In Himachal Pradesh this move to take up private education was a concern within the state education department and among parents whose children attended state schools. They saw this trend driven more by perceived status of private schools rather than actual differences in quality and worried that low numbers remaining in state schools would threaten their viability. That there are good reasons for dissatisfaction with government schools will become apparent from data presented later. The dissatisfaction is relevant here as it bears on school governance. A widespread view is that improvement can be achieved via ‘local empowerment’ - by giving real decision-making power on children’s schooling to parents and the local community. This trend has support from many places: NGOs, international agencies, some education activists and is in line with a general attempt to decentralise many aspects of administration in India following the passage of

71 these are also states with lowest sex ratios (Punjab 895, Haryana 879 (Census of India 2012a), possibly another indicator of patriarchy
72 Public Report On Basic Education In India (De et al. 1999)
the 73rd constitutional amendment in 1992 which established the local tier of government – the panchayati raj (Pal 2004).

Implementation in the school sector varies but, as the figures in Table 12 showed, nearly one half of primary schools, and one third of pre-primary and upper primary, are now run by local bodies. While community organised action in some states is accepted as being significant in raising literacy levels and improving the quality of education (e.g. that by KSSP in Kerala (Srivastava et al. 2006; Parayil et al. 2003) whether mandated local power is effective is questionable. A number of states made it a legal requirement that village level committees be set up to govern schools and school local management is now required under Sarva Shiksha Abhiyan (SSA). These committees typically include the school headmaster/headmistress, village officials and parents as members.

(ii) **Financing**

National expenditure on all forms of education is under 4 percent of GDP. The comprehensive analysis of education financing by De and Endow (2008) outlines the repeated recommendations by government appointed bodies for larger educational spending – a target of 6 percent of GDP has been put forward a number of times since 1964, often with the added requirement that half be spent on elementary education. Since school education became a shared responsibility of state and Union governments in 1976 the centre’s share of educational spending has been steadily rising. From an approximate 90:10 split between states and centre in 1992-93 the centre’s contribution had increased to 25 percent in 2005-06. Local government contribution to education varies greatly. In states where a large degree of responsibility for elementary education has been devolved to local bodies over 50 percent of expenditure may be raised locally in urban areas, though the figure in rural areas of the same states is just a tenth of that. At both state and central level sources other than Ministries/Departments of Education contribute to financing education. These include the Department of Rural Development, Ministry of Tribal Affairs, Department of Women and Child Welfare, among others. The proportion from these sources has been increasing and was 19 percent of educational expenditure in 2003-04.

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73 Kerala Sashtra Sahitya Parishad - “Kerala people’s science movement”
74 Saxena gives a telling account of local opposition to a literacy drive: “A crude reaction was "if these learn how to read and write they will get a swollen head. They will start making all kinds of demands. Then who will work on our lands and graze our animals?" A more sophisticated response was, "All this 'shiksha-viksha' (~ education nonsense) will wreck the peace of our village" (Saxena 1992)
75 Variously known as Village Education Committee (VEC), Parent Teacher Association (PTA) School Development Monitoring Committee (SDMC) among other names.
In considering government spending in India it is important to distinguish between *plan* and *non-plan* expenditure. In education, plan expenditure funds new initiatives including new infrastructure, while non-plan expenditure maintains existing education programs – primarily paying salaries and maintenance of existing buildings. Union government contribution to plan expenditure has grown steadily from 42 percent in 1992-93 to 63 percent a decade later. In contrast Union contribution to non-plan expenditure has changed only marginally (from 5 percent to 7 percent) over the same period. Thus the Union government has taken a larger role in shaping the direction of education while the states retain financial responsibility for sustaining educational systems, including the new programs, once implemented.

Since 1990 total annual public expenditure on education has increased from ₹280 billion\(^{76}\) in 1990-91 to ₹500 billion in 2003-04\(^{77}\) (in constant price terms) but the change has not been steady and as a percentage of GDP total public expenditure on education declined from 4 percent in 1990-91 to 3.5 percent in ’97-’98, then grew rapidly to nearly 4 percent in 2000-01 only to fall as quickly back to 3.5 percent by 2003-04 (data from De et al. 2008)\(^{78}\).

In the same period elementary education’s share of public education spending grew as shown in the table 14:

<table>
<thead>
<tr>
<th>Year</th>
<th>Elementary spending as % of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>46.27</td>
</tr>
<tr>
<td>1995-96</td>
<td>48.30</td>
</tr>
<tr>
<td>2000-01</td>
<td>47.61</td>
</tr>
<tr>
<td>2004-05</td>
<td>51.45</td>
</tr>
</tbody>
</table>

Adapted from (De et al. 2008)

**State variation**

Among seven states\(^{79}\) selected by De and colleagues per capita expenditure on education in 2001-02 varied from almost ₹900 in Himachal Pradesh to just 200 in Madhya Pradesh (De et al. 2008). As the authors point out, the differences in expenditure on education are not explained solely by economic factors – rich states vs. poor states. In 2001-02 Haryana had a significantly higher per capita Net State Domestic Product (NSDP) than Himachal Pradesh but spent less than half as much per

---

\(^{76}\) billion = \(10^9\)

\(^{77}\) ₹ – Indian Rupees. At September 2013 approx. ₹58 = $1.

\(^{78}\) original data expressed in *crore* - 1 crore = 10 million (\(10^7\))

\(^{79}\) Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Meghalaya, Orissa, Rajasthan
capita on education. Rajasthan with less than half Haryana’s per capita NSDP spent the same per head on education; while Madhya Pradesh with a per capita income almost the same Rajasthan’s had little more than half that state’s per capita expenditure on education.

A continuing issue with the financing of elementary education is the high proportion of the total budget devoted to teacher salaries. De and Endow (2008) quote studies which estimate this proportion is as high as 85 – 90 percent of the total for the elementary sector. The size of teacher salaries as much as the number of teachers (and insufficient education budget) is responsible for the high ratio. A study in Uttar Pradesh showed teacher salaries were over 13 times the average per capita income in that state. Another study, in the state of Tamil Nadu, showed salaries in government schools to be 6 times higher than those in private school (Bajpai et al. 2008) – a ratio the authors state is similar to that in five other states they have studied. They attribute this to the political strength of unions covering teachers in government schools rather than to a difference in teacher qualifications between the two sectors.

A great deal of the Union Government spending in education has been through ‘Centrally Sponsored Schemes’ (CSS), which have included:

**Table 15 Centrally sponsored schemes to improve education**

<table>
<thead>
<tr>
<th>Scheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Primary Education Programme (DPEP)</td>
</tr>
<tr>
<td>Educational Technology (ET)</td>
</tr>
<tr>
<td>Environmental Orientation of School education</td>
</tr>
<tr>
<td>Integrated Education of Disabled Children (IEDC)</td>
</tr>
<tr>
<td>Midday Meal (MDM)</td>
</tr>
<tr>
<td>Non-formal Education (NFE)</td>
</tr>
<tr>
<td>Operation Blackboard (OB)</td>
</tr>
<tr>
<td>Sarva Shiksha Abhiyan (SSA)</td>
</tr>
<tr>
<td>Scheme for Free education for girls</td>
</tr>
<tr>
<td>Teacher Education (TE)</td>
</tr>
</tbody>
</table>

All but the last three of these were exclusively for elementary education. While CSSs address aspects of education in obvious need of improvement some other points regarding them need to be made. Saxena (2006) notes the political element in many of these schemes as their specific targets are readily identified and give political mileage to the party which initiates them. Sarva Shiksha Abhiyan is now the flagship Union Government program for school education supplanting or incorporating the other programs listed above.

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80 Andhra Pradesh, Karnataka, Madhya Pradesh, Rajasthan and Uttar Pradesh
Overview of Sarva Shiksha Abhiyan

SSA is a nation wide program started in 2001 with the objective of achieving universal elementary education by 2010 and consequent total literacy among the school age population. Organisation and administration of School education in India is a state responsibility but SSA is a central government program under the jurisdiction of the Education division of the Ministry of Human Resource Development in Delhi. The program aims at institutional, administrative, fiscal, social and curricular reforms. More schools are being constructed and the quality of infrastructure improved (roofs on classrooms, provision of drinking water, toilets and blackboards). Incentives are provided by way of free text books and uniforms and via the scheme of free mid-day meals for students. Components of SSA are directed at particular segments of the population, girls in general, rural youth and children from SC/ST and minority communities, who have traditionally been educationally disadvantaged. The estimated expenditure by the central government on this project was ₹600 billion (~ $A10 billion) on top of existing central and state government budget allocations for education (Grover et al. 2002 p45).

How does SSA differ from previous programs?

SSA is different from all the programs started before – whether by central or state governments - it in terms of both scale and structure. It is a country-wide programme, administered from Delhi with units in every state. It is broader in scope than previous programs attempting to cover many factors affecting education (infrastructure, teacher quality, curricula etc) whereas previous programs addressed one or a few at most. It also envisages strong community participation with the setting up of Village Education Committees (VECs) and School Management Committees (SMCs) in order to make the service providers more accountable.

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81 The 1976 alteration making education a shared responsibility of state and Union governments doesn’t specify details. Schedule VII to the constitution is comprised of three lists (Union List, State List, Concurrent List) specifying areas under each jurisdiction’s responsibility. Item 25 in List 3 -Concurrent List names “Education” with some limitations regarding specific tertiary and research institutions. Item 41 in List 2 - State List names “State Public Services” (Government of India 2013 Schedule VII). School teachers and system administrators in the public education systems were employees of state public services prior to 1976, and remain so.

82 Original: 60 000 crore. ₹ 60 000 crore = $A10 billion at September 2013 exchange rates. The ₹60 000 crore is frequently quoted as the initial estimate for a ten year program, see e.g. Grover and Singh (2002 p45). See De for comprehensive analysis of Indian education expenditure (De et al. 2008).
Table 16 Pre-existing central government schemes incorporated into SSA

<table>
<thead>
<tr>
<th>Operation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard (OB)</td>
<td>Provision of minimum resource levels in elementary schools across the nation — defined as two teachers, two classrooms, and a set of teaching and learning materials in each school (begun 1987).</td>
</tr>
<tr>
<td>Mid Day Meal Program</td>
<td>Universal provision of a nutritious meal to all Indian children in primary schools (begun in 1995).</td>
</tr>
<tr>
<td>District Primary Education Program (DPEP)</td>
<td>Aims: improve (I) access, (ii) enrolment, (iii) retention, and (iv) learner achievement. It was focused on grades/classes 1 to 5, and covered 18 states (begun 1994).</td>
</tr>
</tbody>
</table>

As each of these programs had had a degree of success they were incorporated into SSA rather than being abandoned. Since education needs to be approached as a system, with many interacting components, it is not unreasonable to expect that those pre-existing programs may contribute to educational improvement when other deficiencies are also addressed.

The National Programme for Education of Girls for Elementary Level (NPEGEL), launched in September 2003, is an integral but distinct component of the Sarva Shiksha Abhiyan. It provides additional provisions for enhancing the education of underprivileged/disadvantaged children at elementary level through the development of model schools in clusters, gender sensitisation of teachers and development of gender sensitive learning materials (Tripathi et al. 2008 p12). As a part of SSA, the Kasturba Gandhi Balika Vidyalaya (KGBV) scheme was launched in July 2004 to encourage greater participation of girls in education at the upper primary level (Srivastava et al. 2006). General provisions of SSA such as improved infrastructure, mid-day meals, altered curriculum etc may be expected to have an impact on the education of disadvantaged groups as well as those components specifically targeted at such.

Although education is “free” in government schools the ancillary costs connected with schooling (textbooks, uniforms, transportation) are sufficiently great to keep substantial numbers out of school in a country where 250 million people exist on less than $1 per day (Bajpai et al. 2004). This impediment to achieving UEE is recognised and components of the Sarva Shiksha Abhiyan (SSA) scheme attempt to address them through the provision of free texts and uniform to selected groups. While this has had a beneficial effect, it suffers two defects. The first is an aspect of the general issue of corruption and inefficiency shown by the facts that some materials are diverted for sale

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83 For mid-day meal program see (Khera 2006), for OB see (American Institutes for Research 2004), for DPEP see (Dyer et al.).
or lie undistributed. The second is a more basic, conceptual issue: that needy students are identified not via objective measures of family income but by the family identification with a recognised social group – a ‘backward’ caste or tribe. There is clearly a relation between social group (caste/tribe) and economic status but it is one that applies in general to a group collectively and not necessarily to every individual within the group. There are members of upper castes who are poor and members of backward castes who are rich. The provision of supplementary assistance to individuals on the basis of their group identity inevitably means that some in real need are ineligible for assistance. It also means that well off members of backward groups receive assistance they do not require. As well as the inbuilt failure to aid all in need the very apparent inequity undermines support for assistance programs, sometimes to the extent that distribution of text and uniforms is abandoned in the face of community resentment.

**Performance of the elementary education system**

The preceding section has attempted to outline some of the basic structural features of India’s elementary education system. It’s efficiency and the coherence of its various parts (state systems, federal programs etc) are among aspects that could be investigated, however, of prime importance is the manner in which it fulfils its basic purpose of educating the nation’s children. This section will examine some aspects of the system’s performance. The most basic measure of this is the extent to which a system enrolls all children in school, but as the purpose for being in school is to improve each child’s capabilities in a range of attributes the significant measure of system performance is the extent to which that is achieved. At elementary level acquiring literacy and numeracy are priorities as they not only provide the basis for further education but also provide valuable skills to those citizens who complete schooling at the elementary years. Measures of literacy and numeracy are important indicators of a system’s performance. It would be hoped that in six years of elementary education children would also develop a range of other capabilities and skills including knowledge and understanding in a range of academic disciplines, interpersonal skills to facilitate their existence in wider society as well as growth in self confidence and personal wellbeing. These attributes are not only hard to assess but are almost always overlooked in assessment of Indian elementary education as the fundamentals of attendance and literacy still require much attention. In all aspects of the system’s performance there are issues of disparities which should be considered: based on gender, caste and other social groupings – each of which vary by region. Taking a broad view performance has improved, in reach and quality, since Independence in 1947 and continues to do so, but it is still far from satisfactory - a
view that is shared among teachers, administrators and researchers connected with Indian elementary education.

The following table presents a broad overview of the changes since independence:

Table 17 School statistics 1950 - 2005

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Elementary Schools</td>
<td>223,600</td>
<td>845,007</td>
<td>883,667</td>
<td>897,109</td>
<td>1,042,251</td>
</tr>
<tr>
<td>No. of Teachers in Elementary Schools (in millions)</td>
<td>0.624</td>
<td>3.22</td>
<td>3.39</td>
<td>3.49</td>
<td>3.75</td>
</tr>
<tr>
<td>Enrolment in Primary Schools (in millions)</td>
<td>19.20</td>
<td>113.83</td>
<td>113.90</td>
<td>122.4</td>
<td>130.8</td>
</tr>
<tr>
<td>Enrolment in Upper Primary Schools (in millions)</td>
<td>3.00</td>
<td>42.81</td>
<td>44.80</td>
<td>46.9</td>
<td>51.2</td>
</tr>
<tr>
<td>Enrolment in Elementary Schools (in millions)</td>
<td>22.20</td>
<td>156.64</td>
<td>158.70</td>
<td>169.3</td>
<td>182.0</td>
</tr>
</tbody>
</table>

Adapted from (Govinda et al. 2008) based on (Ministry of Human Resource Development 2007)

What is important beyond the numbers is whether schools have building and facilities, whether teachers are trained, attending and educating and whether enrolled pupils are attending and learning.

(iii) Infrastructure

Most schools now have buildings and the proportion with pucca\textsuperscript{84} buildings (solid) continues to grow. Provision of drinking water and toilets in all schools is a priority, including separate toilets for girls and boys. Operation Blackboard (1987-2002) provided grants for classrooms and resources and improving infrastructure has been a major focus of the Sarva Shiksha Abhiyan program since 2001 - and the area in which it has probably had its major impact. As always regional variation is important and not always as one might expect. Members of the PROBE team revisiting schools in five northern states\textsuperscript{85} in 2006 found school building and facilities vastly improved. As well as solid buildings three quarters of schools had drinking water and two thirds had toilets (De et al. 2009). It is somewhat surprising to note that in Tamil Nadu, where education has generally been better than in the northern states, the same proportion of schools lacked toilets, even that a few primary schools still operated without buildings and that 3 percent of elementary students learnt in classrooms that lacked blackboards (Bajpai et al. 2008).

\textsuperscript{84} \textit{pucca} - solid

\textsuperscript{85} Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh, Himachal Pradesh
(iv) **Teachers**
There continues to be a shortage of teachers for elementary education. This continues to be the case and is predicted to be exacerbated by the 2010 reform (Right to Education act), which it is hoped will bring more children into the education system. Even prior to this the increase in elementary enrolment, combined with desire in parts of the country to lower class sizes, led to an increase in demand for teachers. Demand for places in teacher training courses increased accordingly, promoted also by applicants’ knowledge that teacher salaries in government schools are high and that the jobs are secure. Provision of teacher training therefore became a lucrative business proposition so that between 2004 and 2008 the number of institutions offering teacher training grew from 3200 to 12,200 - with consequent concerns about course quality (National Council for Teacher Education 2009).

Large numbers of existing elementary teachers lack any teacher training and have varying levels of education below grade 12. Though the requirement for registration as an elementary teacher is a one year (non-degree) training course, many persons without such training continue to be employed as teachers. Only 20 percent of primary teachers in Manipur are trained, while even in such large states as Madyha Pradesh and West Bengal the figure is just 60 percent (Govinda et al. 2008). These figures are for persons designated as teachers, hence claimed numbers such as 98 percent of the teaching work force in Uttar Pradesh being trained should be treated with caution as they ignore the ‘para teachers’ employed in many schools. In 2009 the National Council for Teacher Education released a proposed Curriculum Framework for Teacher Education. This included recommendations about the nature of training incorporating the changed pedagogy contained in the 2005 National Curriculum Framework for schools, as well as about types of teacher training courses and their organisation. With the large number of under-trained teachers in Indian elementary schools the need for in-service training is great.

Two recurring themes in studies of Indian elementary education are the extent of teacher absences and the degree of teacher commitment. The latter, also called ‘teacher activity’ or ‘teacher engagement’ refers to the proportion of the time that the classroom teacher gives to some type of teaching activity, be it rote instruction or child-centred

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86 *para teachers* - persons with no teacher training and, often, less education than required to be a registered teacher. Employed originally as teacher assistants or to temporarily fill the teaching role in the absence of a qualified teacher, para teachers have, in some areas, come to be the normal teaching force.
learning, as compared to such things as completing bureaucratic paper work, socialising, knitting or just sitting idle.

A survey covering 20 states in 2004 found that 25 percent of teachers were absent on a typical school day, ranging from 15 percent in Maharashtra to 42 percent in Jharkhand (Govinda et al. 2008). Pandey and colleagues found similar results across three states; the proportion of teachers present being: Karnataka, 88 percent; Uttar Pradesh, 65 percent; Madhya Pradesh, 67 percent (Pandey et al. 2008). While the total number of teachers employed in elementary schools across India is nearly 4 million, there are only about 100,000 schools with four or more teachers and although national policy is to eliminate single teacher schools, many remain. Combined with the high absentee rate this means significant numbers of schools having no teacher present on any particular day, a situation confirmed by one survey finding of 1.3 percent of schools (over 8000) having no teacher present on the day of the research (De et al. 1999). One reason frequently given for absenteeism is that a high proportion of teachers do not reside in their school’s locality and the long travel distance to work discourages attendance. This has been taken as a reason for the recruitment of village residents as teachers, even when they are unqualified. Himachal Pradesh, a state with impressive educational achievements, has provided local housing for teachers to obviate this problem as well as to encourage teachers to work in remote areas. However Grover and Singh (2002) suggest that it was attitudes of teachers, and the ready availability of medical certificates to enable ‘medical leave’, rather than distance to work which accounted for absenteeism.

Many research studies have reported on the activity of teachers who are present in the classroom. As a generalisation, teaching in Indian schools tends to be heavily teacher directed and focused on memorising factual information via learning by rote. Whatever the merits of this pedagogy, it does mean that when teachers are not actively engaged with students learning suffers drastically. The 1999 PROBE report based on surveys in five mainly large, poor, northern Indian states found no teaching going on in half the schools visited (De et al. 1999). Visits by some members of the PROBE team to the same region in 2006 showed great improvement in infrastructure and enrolment but that “in half of the sample schools, there was no teaching activity at all when the investigators arrived” (De et al. 2009). Pandey et al. also assessed the activity of teachers in schools they visited. The percentage of teachers who were actively teaching were: Karnataka, 68 percent; Uttar Pradesh, 25 percent; Madhya Pradesh, 30 percent. Interestingly the Karnataka teachers were less educated than those in UP and MP, two
thirds having less than a grade 12 qualification while the majority in the other two states were college graduates. Even in the south of India, where education is generally better, teacher inactivity is a problem: “70% of the classrooms that we made surprise visits to had no instruction taking place at the time of our visit. Several times we happened upon teachers with a stick and reading a magazine in their hands, while their students played outside” – Grover and Singh (2002) reporting on schools in two districts of Tamil Nadu.

As the teacher’s input is known to be the most significant ‘in-school’ factor (Organisation for Economic Co-operation and Development 2010b) in stimulating quality learning, it is surprising that the abysmal situation in much of India has received so little attention until recently. Concern with basic numerical inputs – total number of teachers, the proportion who are female and the percentages from scheduled castes and tribes – may be easier to deal with. This is not to suggest that these are not important issues, class sizes and role models for girls and the underprivileged matter, but teaching quality matters more.

With a longstanding national gender gap in school enrolment and school completion the presence of female teachers has been seen as one factor in bringing about change. With state based recruitment of teachers there is a barrier to this happening quickly as in those states with patriarchal attitudes and low female enrolment there are fewer educated women to employ as teachers and greater reluctance to do so: without active intervention it is suggested that the system perpetuates itself. The proportion of female teachers is one third or less in Bihar, Orissa, Uttar Pradesh, Madhya Pradesh, states where girls enrolment has been low; while two thirds or more of teachers are female in Kerala and Tamil Nadu where female enrolment is high (Govinda et al. 2008). The percentage of female teachers in Himachal Pradesh and Rajasthan for both schools that are primary only and those that have primary and upper primary are shown for the years 2003 to 2012 in table 18:

| Table 18  Female teacher (%) in research states 2002 - 2012 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Himachal       |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Primary        | 43.1            | 42.2            | 45.5            | 45.3            | 45.6            | 45.7            | 45.7            | 45.4            | 44.5            | 44.8            |
| P & UP         | 43.9            | 46.2            | 59.1            | 59              | 60.4            | 63.1            | 64.4            | 65.0            | 65.6            | 67.0            |
| Rajasthan      |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Primary        | 24.2            | 23.9            | 28.4            | 27.5            | 28.9            | 28.9            | 30.1            | 31.2            | 31.2            | 31.8            |
| P & UP         | 24              | 23.4            | 23.7            | 27.4            | 29.3            | 29.8            | 31.0            | 30.5            | 31.2            | 31.7            |
| ( data source: DISE State Report Cards for the years 2003-04 to 2011-12) |

Note the almost constant percentage of female teachers in Primary-only schools in Himachal while the proportion in combined primary/upper-primary rose by about 50 percent in the decade. Rajasthan presents a contrast, with the proportion of female
teachers about half that of Himachal but showing about a 33 percent increase, in both
types of school, over the decade. Did the decadal change in the proportion of female
teachers in these two states affect girl’s enrolment? In Himachal primary schools the
proportion of girls remained almost constant around 47 percent, as the proportion of
female teachers also remained constant. In combined primary/upper primary where the
proportion of female teachers increased by 50 percent girls enrolment rose about 20
percent. However in Rajasthan the proportion of girl students enrolled remained almost
constant in both primary and combined schools (~47 percent and ~43 percent
respectively) while the proportion of female teachers rose in both. This is not to argue
that the presence of female teachers in schools has no impact on girl’s enrolment.
Knowledge of cultural attitudes would make it surprising if it did not; but what might
matter, rather than the proportion of female teachers in the workforce, is the number of
schools with no female staff. The figures for such schools are available in DISE, but not
in a manner that enables a comparison with girls’ enrolment in those schools compared
to those with female staff.

(v) Enrolment
Estimates of enrolment rates vary but some things are clear: enrolment rates have
improved steadily since independence and continue to do so. At elementary level
approach 100 percent nationally and across most states, however there are significant
variations in enrolment rates in different regions and for different groups. Moreover
although the stated enrollment rate may be 100 percent there are many places the actual
attendance rates are significantly lower than enrolment rates. A further compliaction in
interpreting enrollment rates is that ‘out of age’ enrolment is common in many parts of
the country

The Ministry of Human Resource Development in its 2007-08 annual report claims that
82 percent of children in the 5 – 14 age group were enrolled at school, but that 50
percent drop out before completing year 8. This is consistent with the results of the
UNESCO Institute of Statistics 2005 survey of over 70,000 school age children that
found 83 percent attending school though the majority of 6 year old were not in school

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87 For a comprehensive discussion of measures of enrolment see Mehta (2003)
88 2011-12 DISE SRC data gives the Net Enrolment Ratio at Primary level for the whole of India for
2010-11 as 99.9% (and 61.8 % for upper primary) (National University of Educational Planning and
Administration 2013 p3); however the same document (page xxvi) notes difficulties in computing the
NER for some states due to availability of data. The previous SRC, for 2010-11, gives the Net
Enrolment Ratio at primary level for sixteen states with the value in ten of those (including six large
states) being less than 90%. The claim of 99.9% for the whole of India is clearly inconsistent with the
state figures.
89 students significantly older or younger than the expected age range for the class the student is enrolled
for.
despite that being the legal age for school commencement in India (Govinda et al. 2008). The educational NGO Pratham gave more optimistic figures for 2005 based on its surveys:

**Table 19  Enrolment rates as per Pratham**

<table>
<thead>
<tr>
<th>Group</th>
<th>enrolment</th>
<th>notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>All children, nationally</td>
<td>&gt; 90%</td>
<td></td>
</tr>
<tr>
<td>5 year olds, nationally</td>
<td>47%</td>
<td>In formal schooling</td>
</tr>
<tr>
<td>Ages 6 – 14 years, nationally</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>Ages 6 – 10 years, nationally</td>
<td>94%</td>
<td>Except in Rajasthan, Bihar, Orissa, West Bengal, Jharkhand, Arunachal Pradesh and Meghalaya</td>
</tr>
<tr>
<td>6 – 10 years, most states</td>
<td>&gt; 95%</td>
<td></td>
</tr>
<tr>
<td>Ages 11 – 14, nationally</td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td>Ages 15 – 16 nationally</td>
<td>79%</td>
<td></td>
</tr>
<tr>
<td>Girls ages 7 – 10, most states</td>
<td>&gt; 95%</td>
<td>Except in Rajasthan, Bihar, Orissa and Jharkhand</td>
</tr>
<tr>
<td>Girls ages 11 – 14 girls, many states</td>
<td>80 – 90 %</td>
<td>e.g. Bihar 78%; Rajasthan 79%</td>
</tr>
</tbody>
</table>

Adapted from Pratham (2006)

Historically, for India as a whole, females have had lower rates of schooling and lower literacy rates than males though, of course, there have always been large variations by region and social group, but progress has been made towards equity. At independence about 25 percent of males were literate and about 8 percent of females while in 2001 the figures were 64 percent and 46 percent (Bajpai et al. 2004). Literacy rates are affected not just by enrolment but also by attendance, dropout rate and effectiveness of schooling. Whole population figures reflect the cumulative impact of schooling on successive generations. Thus the enrolment rate of 95 percent for girls aged 7-10 is an encouraging indicator of a narrowing gender gap, supported by the figure for overall dropout rate given below. However optimism should be tempered on several points (a) there are some large states such as Bihar where the picture is not as good, (b) dropout rates for girls in upper primary are still high in some large states (c) female enrolment rates for scheduled tribes and scheduled castes still lag general rates.

Within the general picture of rising enrolment rates two significant issues are hidden within the figures: (a) nominal enrolment - where children not attending are put on the roll to meet government enrolment targets or to boost returns to school or local community from enrolment linked schemes (b) out of age enrolment. Data for nominal enrolment are sparse, being dependent on checks from intensive surveys. Though significant in some districts it is probably not so for most of the country. The situation is otherwise for out of age enrolment:
Table 20 'Out of age' enrolment for selected states

<table>
<thead>
<tr>
<th>Under Age 90</th>
<th>22% of children in grade 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>High %</td>
<td>&gt; 30% in Orissa, Rajasthan, Madhya Pradesh, Himachal Pradesh, Uttarakhand and Haryana</td>
</tr>
<tr>
<td>Low %</td>
<td>e.g. Maharashtra 3.2%; Nagaland 5.1%; Karnataka 6.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over Age 91</th>
<th>14% in grade 6 or lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 year olds</td>
<td>25% in grade 8 or lower</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade 3 children over 10 years old</th>
<th>nationally 21%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High %</td>
<td>Bihar and Jharkhand each over 35%; Uttar Pradesh 28%</td>
</tr>
<tr>
<td>Low %</td>
<td>Tamil Nadu, Kerala each under 3%</td>
</tr>
</tbody>
</table>

Adapted from Pratham (2006)

The UNESCO survey showing the majority of 6 years olds not in school reflects a widespread pattern of delayed entry into education, which is evident in the number of older children in grades appropriate to lower ages. Among children from scheduled tribes and scheduled castes a delayed start to schooling is even more common. Some of the 14 percent of 14 year olds in grade 6, or lower, are there as a result of repeating a grade rather than late enrolment. DISE data show about 3.2 percent of children in grades 1 to 5 nationally (National University of Educational Planning and Administration 2013 p3) repeating a grade 92. This should diminish in the future as the RTE act restricts the conditions under which schools can require a student to repeat a grade.

Surveys of children (and their families) who have not enrolled in schooling show that the major reasons are that the parent or child are ‘not interested in education’ (slightly higher for girls than for boys) and for ‘economic reasons’. The latter is predominantly paid work for boys and household work for girls as well as the cost of education itself. While surveys in the 1980’s showed ‘absence of convenient school’ as an important factor for non enrolment this is no longer a significant cause (Govinda et al. 2008).

90 especially: young children enrolled to boost school numbers, sometimes to claim enrolment entitlements; young siblings sent to school with students as form of child care.
91 especially: ‘late enrolments’ i.e. students commencing school well beyond normal starting age (perhaps age 10 or older) who then are enrolled in the initial grade; and students repeating a grade - supposedly curtailed under RTE.
92 Much higher in some states, e.g. 11% in West Bengal, 6.7% in Bihar and Gujarat. Repetition rates have declined greatly in the past decade: 2003-04 DISE figures show rates above 10% in a number of states (>20% in Haryana and Gujarat) (National Institute of Educational Planning and Administration 2005). The Right to Education Act (RTE) now prohibits grade repetition (Ministry of Law and Justice 2009 p6, Chapter 5 clause 16) as a standard practice. While the wording is definitive (“No child admitted in a school shall be held back in any class or expelled from school till the completion of elementary education”) advice from Education Departments appears to be that while repetition cannot automatically follow the results of school tests it may be permissible if in the best interests of a student’s overall education.
Table 21 Whole of India Drop out rates (%) - 2005 Figures

<table>
<thead>
<tr>
<th>Primary</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>31.8</td>
<td>25.4</td>
<td>28.5</td>
</tr>
<tr>
<td>SC</td>
<td>32.7</td>
<td>36.1</td>
<td>34.2</td>
</tr>
<tr>
<td>ST</td>
<td>42.6</td>
<td>42.0</td>
<td>42.3</td>
</tr>
<tr>
<td>Upper Primary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50.5</td>
<td>51.3</td>
<td>50.5</td>
</tr>
<tr>
<td>SC</td>
<td>55.2</td>
<td>60.0</td>
<td>57.3</td>
</tr>
<tr>
<td>ST</td>
<td>65.0</td>
<td>67.1</td>
<td>65.9</td>
</tr>
</tbody>
</table>

Data source: (Govinda et al. 2008)

Students dropping out before completing elementary schooling remains a great problem. The MHRD figure of 50 percent dropout rate before year 8 was quoted earlier but even during the primary years the dropout rate in 2005 was a disturbing 29 percent - though this was an improvement on the figure of 42 percent in 1990. The dropout rate for girls as a single entity now appears to be lower than that for boys, a change from traditional patterns, but large variations exist by state and social group for girls as well as overall.

The most recent DISE data show much lower dropout rates but don’t provide the break up by groups as shown above. The overall national dropout rate for grades 1 to 5 is 6.5 percent with state variation from 15 percent in Arunachal Pradesh to 0.1 percent in Kerala. The figures for Himachal Pradesh and Rajasthan are 0.7 percent and 7.8 percent respectively (National University of Educational Planning and Administration 2013).

Surveys by questionnaire and interview indicate that ‘not being interested in study’ and being required for work\(^{93}\) were the predominant reasons given for dropping out, 25 percent each, with the cost of schooling being a lesser factor - 10 percent (Govinda et al. 2008). Some qualitative research has shown that ‘lack of interest in study’ is related to the nature of what is experienced in school – boredom, experience of failure and a curriculum unrelated to student’s lives.

(vi) Quality issues

Much of the preceding discussion will have given an impression of a low quality education system. The description by Bajpai and Goyal is generous:

“There is a lot of ‘waste’ in the school system as evidenced by the large percentage of children who drop-out before completing primary schooling. Such inefficiency is compounded by teacher apathy, teacher absenteeism, very high pupil-teacher ratios and inadequate teacher training” (Bajpai et al. 2004 p2).

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\(^{93}\) Includes unpaid work (especially rural boys) and paid work (urban boys) as well as household work, including minding siblings, which was the predominant reason for both urban and rural girls.
It is generous as they fail to mention that most significant outcome – the impact of the system on students, partly assessed by measures of student achievement. The quality of the education system is only partly assessed by these measures, for though it is the scores for literacy, numeracy and knowledge of science, geography and history which interest planners, those with a wider vision value education for many other attributes as well. A good education system will promote a society’s development by building social cohesion as students’ develop understanding and tolerance of others. It will foster an innovative and creative society by building students’ higher order thinking skills alongside a critical and enquiring outlook. It will build students’ self-confidence. Research on these aspects of Indian elementary education is scant, but all anecdotal and incidental evidence suggests it does poorly. What we do have are measures for that most fundamental skill expected from elementary education, literacy - and some basic assessments of skills in arithmetic. The validity of some of the figures is dubious; even so, the picture presented is not a happy one.

The most widely quoted literacy figures for India are those from the national census. When change in literacy rates over decades are being discussed this is virtually the sole source of data. There is a problem with this data resulting from self-assessment, but the over estimate resulting from that source is fairly consistent and the general upward trend in literacy shown by the census data is not illusory. For assessments of the degree of literacy we need to look elsewhere. Even in the contemporary school system what is meant by being literate varies from place to place. The writer’s experience when visiting some rural schools in West Bengal in 2010 was that students who could write their own name were classified as literate, whereas the researcher was told in Himachal Pradesh that to be considered literate a student should at least be able to read and write a short paragraph and comprehend what they had read.

The 2011 census data give the national literacy rate as 74 percent: 82 percent for males and 65 percent for females.
There is much state by state variation in the general literacy rate, and in the gender gap, as shown below:

<table>
<thead>
<tr>
<th>Table 22 Whole population literacy rates (%) for Indian states 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State</strong></td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Kerala</td>
</tr>
<tr>
<td>Mizoram</td>
</tr>
<tr>
<td>Tripura</td>
</tr>
<tr>
<td>Goa</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
</tr>
<tr>
<td>Maharashtra</td>
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<tr>
<td>Sikkim</td>
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<tr>
<td>Tamil Nadu</td>
</tr>
<tr>
<td>Nagaland</td>
</tr>
<tr>
<td>Manipur</td>
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<tr>
<td>Uttar Pradesh</td>
</tr>
<tr>
<td>Gujarat</td>
</tr>
<tr>
<td>West Bengal</td>
</tr>
<tr>
<td>Punjab</td>
</tr>
<tr>
<td>Haryana</td>
</tr>
<tr>
<td>Karnataka</td>
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<tr>
<td>Meghalaya</td>
</tr>
<tr>
<td>Orissa</td>
</tr>
<tr>
<td>Assam</td>
</tr>
<tr>
<td>Chhattisgarh</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
</tr>
<tr>
<td>Jharkhand</td>
</tr>
<tr>
<td>Rajasthan</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
</tr>
<tr>
<td>Bihar</td>
</tr>
</tbody>
</table>

Population literacy rates are an indication of the cumulative effect of elementary education over a period equal to the average life span. With Indian life expectancy of about 65 years, the literacy figures for 2011 roughly indicate the effectiveness of elementary education in its most basic purpose in the period since independence. Literacy data for younger age groups show successively higher rates.

However what is meant by “literacy” is not revealed in these figures. Many researchers have remarked on the poor reading and writing skills of students who have spent years in Indian primary schools with over half of grade 4 students in some states unable to read a simple sentence (though probably classes as “literate” in some assessments). The situation is similar for numeracy. These issues are dealt with in detail in later chapters, including consideration of the few studies that benchmark Indian students against those of other countries.

Common ‘explanations’ for the low achievement of so many Indian elementary students include factors connected with the organisation of schooling, with the nature of teaching as well as attributes of the student cohort. Thus large class sizes are often cited as a source of poor student achievement, as is the practice of multi-grade classes and ‘teaching by rotation’. Others see the main problem originating with teachers - a combination of high absence rates and unengaging teaching methods based on rote learning. The high rate of student absence in some places (mentioned above in connection with enrolment data) is also plausibly suggested as detrimental to student
achievement. In any society where literacy rates have historically been low but school attendance rates increase quickly there must be many students enrolled from families where both parents are illiterate - so called ‘first generation learners’. It has been suggested that this group are educationally disadvantaged and that their performance lowers overall levels of student achievement.

Mass media accounts of Indian schools often focus on large size classes - 80 students with one teacher is a simple fact to grasp and is pictorially graphic. The average pupil teacher ratio (PTR) at primary level in Bihar elementary schools is 52 (64 at upper primary)\textsuperscript{94}, but this is not the norm throughout India. The national PTR at primary level is 31, but there are just three states where the PTR in elementary schools is over 40\textsuperscript{95} (National University of Educational Planning and Administration 2013)\textsuperscript{96} - high PTR values in large states have a pronounced effect on the national average. The connection between class size and learning outcomes is a contentious one and extensive research has not given a definitive conclusion. While class size can affect the style of teaching, it is not clear that rote learning is impeded by larger class size. The researcher has observed large classes in China in which children had high literacy and numeracy skills as well as small size classes in Australia where the students’ skills were far less developed. That the average PTRs at lower primary are 44 in Uttar Pradesh, 34 in Madhya Pradesh and 17 in Karnataka might initially suggest PTR is connected with achievement, but it does not account for the poor performance of students in Karnataka compared to that in other countries with a comparable pupil-teacher ratio. Pupil Teacher ratios in Himachal Pradesh and Rajasthan are 15 and 27 respectively at primary level; 12 and 26 at upper primary. State wide PTRs give only part of the picture as there is considerable variation between schools within a state. The SSA policy of providing an elementary school within 1 km of every village means that there are many schools serving small communities and consequently they have small enrolment. In combination with another SSA policy of eliminating one teacher schools the result is often schools with small enrollment and at least two teachers and thus a low PTR. Another important measure is the percentage of schools with high PTR. Thus, while for India as a whole 31 is the average PTR, 41 percent of primary schools have PTR greater than 30. In Rajasthan where the average primary PTR is just 27 a large number of schools (40 percent) have a PTR over 30. Schools may have a supply of teachers but insufficient

\textsuperscript{94} though there are still credible reports of classes in Bihar with over 100 students
\textsuperscript{95} Bihar (52; 64); Jharkhand (36, 46); Uttar Pradesh (44, 62) - (primary PTR, upper primary PTR)
\textsuperscript{96} also the source for subsequent data in this paragraph.
classrooms (measured by the Student to Classroom Ratio). The building program during the past decade, a key part of SSA, has largely remedied this issue - only Bihar has student classroom ratio (SCR) figures significantly greater than PTRs - at primary level one teacher for every 52 students but one classroom for every 78. Thus, if classes are to taught indoors, the factor determining class size is availability of rooms rather than teachers. 

Rote learning is undoubtedly common - “Teaching methods are dominated by mindless rote learning, for example, chanting endless mathematical tables or reciting without comprehension” (De et al. 2009) – but, while this may affect development of creativity and critical thinking, one would not expect it to be detrimental to basic tasks based on memorisation such as letter and number recognition or simple multiplication.

Multi-grade teaching occurs where a school’s population is so small that their entitlement is to one teacher though the students are spread across many grades. Teaching by rotation occurs where student numbers are sufficient to form distinct classes based on age/achievement but the number of teachers available (whether through absenteeism or on a permanent basis) is insufficient to provide one teacher per group for the entire day. Rather than combining classes they are taught by the teachers moving between groups - spending a portion of their time with each. These practices, together with the presence of first generation learners, no doubt impede learning to some extent. To some extent, perhaps to a great extent, they can be overcome by modifying teaching methods. Multi-grade teaching and the presence of first generation learners occurs elsewhere without disastrous effects on student achievement. In any case these are factors which occur in some locations, they are not general across the whole Indian elementary education system.

One issue which researchers repeatedly note is the level of engagement of teachers – that in “half of the sample schools, there was no teaching activity at all when the investigators arrived” as expressed by the PROBE team (De et al. 1999). Pandey and colleagues analysed the effect of a number of factors on the achievement of the students they studied in UP, MP and Karnataka (Pandey et al. 2008). They found two factors consistently of significance: ‘teacher activity’ and ‘teacher attendance’. In UP and MP

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97 The researcher became very aware of this in China, seeing classes of 55 in a provincial school compared to 30 in Beijing though both schools were staffed at the same ratio of teachers to enrolled students. The provincial school had insufficient rooms. The adjustment implemented was the practice of having two teachers working in most classrooms

98 and raise the dropout rate by inducing boredom!

99 e.g. in multi-grade teaching in Australia and first generation learners China
where teacher absence was high and the engagement of teachers generally low the factor which correlated most highly with student achievement across all the classes studied was the level of ‘teacher activity’. In Karnataka the general level of teacher activity was higher so it was ‘teacher attendance’ which showed as the factor most related to student achievement. In simple terms, teachers being present and engaged in teaching makes a difference! This is consistent with much educational research world wide which shows the quality of a teacher’s interactions with their class is the most important factor affecting students’ learning.

In studying students’ achievement Pandey et al. found some negative effect of class sizes in UP (where some classes were over 70) and for multi-grade teaching. But found the effect of a teacher’s engagement with the class was much greater - they calculate that were teaching activity to double the student scores in math and literacy would be up to one third higher. Given the attention so often paid to social factors outside the school’s control (students’ caste, family wealth, literacy of parents etc) it is of great interest to note that many of these factors had a degree of correlation with achievement in UP schools, some of these factors did in MP schools, but almost none in Karnataka. Sons and daughters of wealthy or upper caste or literate parents did better in UP schools but not in Karnataka. The authors suggest that when schooling is poor, the effects of family predominate but that good schools can overcome those external effects on student achievement.

This overview of Indian elementary education indicates that, though progress has been made, significant challenges remain to building a quality system. Much of the evidence for the improvement that has occurred is based on literacy figures, but ‘literacy’ is a more complex matter then just recognising letters and words. The following chapter explores literacy in more detail.
Chapter 4 Literacy and its meaning

Literacy in itself is no education. Literacy is not the end of education or even the beginning. By education I mean an all-round drawing out of the best in the child and man-body, mind and spirit (Gandhi 1937 p197)

Sarva Shiksha Abhiyan (SSA) has as its aim “universal primary education”, and a central purpose of that education is to attain universal literacy. Literacy rates are measured and used as indicators of educational progress as well as being of value in their own right. While measuring whether children have attended (and completed) the primary years of schooling is straightforward given access to reliable records, assessing their literacy is more complex. The purpose of this chapter is to set out some issues connected with “literacy” given that despite the clear meaning of the word in the lay mind, it is not so simple when analysed carefully. The intent in this chapter is to point out the pitfalls of any discussion of literacy as a way of providing the framework within which to evaluate “literacy” as a component of the SSA program. This will be of use in assessing SSA documents and program statements, the statistics gathered on achievements under SSA and interpreting discussions with students, teachers and public servants collected during fieldwork. The fieldwork did not involve any direct measurement of literacy.

This chapter will examine (a) what is meant by ‘literacy’, (b) the supposed benefits of literacy (as indicated by historical, sociological and neurological studies), (c) two contested models of literacy and its consequences, and (d) the measurement of literacy.

What is literacy, does a definition matter?

The term “literacy” is commonly taken simply to mean the ability to read and write. Literacy is also commonly taken to be a desirable attribute and being literate to bring with it benefits of a variety of forms – social, economic and cognitive. These benefits are assumed to accrue both to the individual and to a society in which literacy is widespread. The assumed desirability of literacy with its consequent benefits is so widespread that an actual examination of what literacy means is often overlooked.

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100 The PROBE report on Indian education notes that “the terms ‘education’ and ‘literacy’ have tended to be used somewhat interchangeably” but adds that while literacy is very important education is more than that. (De et al. 1999 p6)

101 Kaestle (1985) reminds us that early public schools in Europe were set up explicitly to teach students to read; consequently schooling and acquiring literacy have been so long associated that acquiring literacy is often seen as the purpose of schooling at the elementary level and so goes unexamined.

101 e.g. a search through Dewey’s The child and the curriculum and Democracy and Education found assumptions about literacy, but no discussion of the concept. Use of the term ‘literacy’ is traced to 1883 in the Oxford English Dictionary and ‘literate’ to 1432.
Despite this, in academic circles literacy has been the subject of intense debate over the past half century, among educators and sociologists as well as in cognitive science and neuroscience. The supposed benefits of literacy, its modes of acquisition, its measurement, in fact its very existence as a discrete set of skills, have all been questioned. Detailed historical studies of literacy surveying the past half millennium have also cast doubt on commonplace assumptions about literacy. Recognition of this debate about the nature and consequences of literacy is largely absent from the plans of the many countries that have programs to raise literacy. An examination for UNESCO of national literacy programs shows that the term goes largely undefined and unexamined (Maurer 2005). Researchers such as Dighe (2005) state that this is also the case for SSA.

Roberts (1995) argues that a definition accepted by all is most unlikely to emerge from all the discussions about literacy. That does not mean the issue should be ignored. In addition to the need for an operational definition whenever literacy is being measured there is the broader question of what is meant whenever the term is used. The researcher holds the intellectual position that an examination of any concept may expose unexpected facets of even the most seemingly obviously points and so leads to broader, deeper, understanding. Others have noted that an unexamined acceptance of “literacy” has practical consequences. Scribner discusses how different conceptions of “literacy” alter the ‘scope of the problem’ and the nature of programs designed to address it (1984 p6). Wickert suggests that a lack of precision about the meaning of the term “literacy” has a corrupting effect on its measurement when those running literacy programs have incentive to report success.

“"The stakes are high for the competing constructions because they involve issues of exclusion and inclusion. The literacy rate, and delineations of who is literate, depends on how literacy is defined. Arguments over definition are arguments about whose construction of literacy will win and accordingly whose related politics of literacy will prevail" (Wickert 1992 p30).

That corrupting effect is described graphically by Chandra Shourie who, in writing of schooling in northern Madhya Pradesh, explains that examinations are conducted in classes 5, 8, 10 and 12, but:

"The harsh reality is that a large proportion of pupils appearing for class-5 examinations are not even able to write their name. To keep up appearances, and pretend that the system is functional, teachers resort to mass copying during the class-5 Board exam. Even then the results are not high. In some centres, when there is a hue and cry and cheating is prevented, the pass rate drops to 10 percent or even less!" (in De et al. 1999 p 86).
Dighe writes that the lack of clarity concerning what is implied by “literacy” limits the success of education campaigns in India:

On retrospect, one can say that one of the major problems TLC's encountered was the inherent contradiction in the conceptualisation of literacy itself (Dighe 2000 p17)

Over 30 years ago, Graff (1978) and Wickert (cited in Graff 1986) each remarked on the deleterious effects of the unexamined nature of the term literacy as used in global programs.

Twenty years later, when examining the consequences of literacy for the developing world, Walter (1999) noted that the meaning of literacy is often assumed, despite its complex ramifications. Walter suggests that this is related to an outlook among those (already literate) preparing programs and writing reports who view literacy in simple, unproblematic, terms:

“Among the literate majority, understanding of the term literacy often begins and ends with the idea that literacy is simply the ability to read and write. If we have any doubts, we might turn to the dictionary for a more precise definition, where we are reminded that literate also means ‘well-educated’ or ‘versed in literature’” (Walter 1999 p31).

Walter goes on to suggest that the confusion over the term “literacy” arises in part from the fact that it is the subject of study by researchers from distinct domains – linguists, psychologists, anthropologists and educators – each of whom bring a particular mindset to its study. Each also tends to see particular benefits from literacy’s acquisition.

Failure to define literacy or to elaborate on its meaning is still common. Mauer (2005) in a review of national papers submitted for UNESCO’s 2006 Education for All Global Monitoring Report found that ninety-two out of 121 national reports mentioned the term ‘literacy’ and of these forty-three specified ‘functional literacy’. Of all those countries mentioning literacy only 19 explicitly conceptualized the term in even a minimal way by referring to reading and writing skills. A description of ‘literacy’ was given in 14 reports; the most common (n = 7) being ‘reading and writing’. Of the 43 reports using the term ‘functional literacy’ only four provided an explicit definition (Mauer 2005 p5 and Appendix III p13 & 14).

The situation within India is similar. Reports on the MHRD website such as the Report of National Development Council Committee on Literacy, Planning

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102 TLC - “Total Literacy Campaign” One form of mass campaign to raise whole population literacy within a district. Originally organised by community organisations, later adopted by government agencies.

103 (Indian) Ministry of Human Resource Development
Commission (1993), the report of the Evaluation of Literacy Campaign in India Report of Expert Group (1994) and the report Towards a Literate India (Department of Education (no date) but post 1991), all include extensive details about programs intended to improve literacy but do not include discussion about what it means to be literate.

Dighe, in discussing literacy in India, emphasises the importance of having a clear grasp of what the term means. She points out that when designing strategies to raise literacy in the population what is being aimed at necessarily affects teaching methods: “an understanding of the concept of literacy is crucial in developing appropriate pedagogy” (Dighe 2005 p3). It is of interest that Dighe, in considering ‘literacy’ in India, gives attention just to that English term and not the Hindi ‘saksharta’.

The Supposed Benefits of Literacy

Commenting on what flowed from a lack of precision in conceptualising literacy, Graff wrote of:

“... the unrealistic expectations held about the power of literacy. Thus commentators and speakers make tremendous leaps from campaigns to provide instruction in the technical skills of reading and writing to literacy as the source of independent, critical, and constructive thought processes” (Graff 1978 p7).

It is this distinction between literacy as ‘simply’ a set of technical skills and “literacy” defined to include a collection of the consequences associated with their acquisition that is at the heart of the debate about what literacy is. Understanding the claimed benefits of literacy matters because they are not just attributes of the individual, such as those to which Graff alludes, but material and societal benefits as well. It is the assumed benefits of literacy that makes it such an important issue. Internationally through the UN system

104 The Hindi term “saksharta” is translated as ‘literacy’, hence it is a matter on interest whether there are implications attach to usage of saksharta that are akin to those connected with literacy. Fieldwork discussions with parents and teachers were sometimes in Hindi. When pressed on what saksharta implied it was clear that is was just the ‘mechanical’ task of decoding marks on paper - the ‘autonomous view’ of Street -discussed later. This is not surprising; parents and most teachers (except literacy specialists) in Australia generally hold the same notion of ‘literacy’. It would be of interest to know how widely Hindi is used in both everyday conversation and in formal discussions among those planning India’s school literacy programs, and if it is, what connotations saksharta carries for them. The researcher was not able to pursue this, nor find any scholarly literature in Hindi on the subject. Enquiries were made to a number of professional colleagues working in India about any implied meaning(s) of saksharta. The consensus was that it meant simply being able to read and write - the autonomous understanding, but that there was some recent usage that associated saksharta with specific domains, comparable to the English ‘financial literacy’, ‘scientific literacy’ etc which suggests a connotation of understanding, not just decoding the written marks from paper. However, whatever is evoked in discussion, the English versions of documents [as noted earlier (footnote 60, p58)] are the authoritative ones.

105 “simply” as in ‘no more than’. There is nothing simple about the skills themselves.
and NGO’s, as well as within nations, literacy programs abound. They are funded not for the sake of literacy per se but because of the benefits it is thought to bring. These can be viewed either from the standpoint of the individual (e.g. Goody et al. 1963; Freire 1970) or from that of a society as a whole. A much truncated list of the supposed benefits to the individual of becoming literate includes cognitive development, improved social standing, economic gains and political empowerment. Societal claims include economic development, democracy, political stability and social equity. The validity of these is part of the “great debate” in literacy studies over the past fifty years. That debate arose from the claim by Goody and Watt (1963) that acquiring literacy marked a distinct change in cultural evolution as literacy brought about changes in intellectual life. They see scepticism and analytical thinking arising from writing, in particular from alphabetic writing. This thesis and criticism of it will be examined later in this chapter.

**Historical evidence about literacy’s benefits**

Those of us educated in the modern western tradition tend to associate being literate with high social status or, to put it more bluntly, we don’t expect persons of high social status to be illiterate. That has not always been the case. Some reflection will suggest that when most were illiterate it would be likely that some (even many) having high social status would also be illiterate, but when being literate is the norm considerable disadvantage comes with being illiterate. When most are illiterate that condition is no particular disadvantage, rather, literacy is just another among a variety of specialised skills. Though historical research into literacy faces difficulties – there was no ‘literacy testing’ as such one hundred and fifty year ago – resourceful use of materials such as legal and church records as well as private writing, has provided a detailed and well substantiated picture for particular regions. These are mainly in Western Europe and North America. Similar work in East and South Asia is almost non existent but would provide a valuable addition to the overall picture.

In Europe of the Middle Ages “illiterate kings were by no means uncommon, since literacy was regarded as a skill appropriate chiefly for clerics or subordinate officials but unnecessary for princes” (Sedlar 1994 p54). The same was true in other cultures. Turrittin notes that in the “thirteenth-century Empire of Mali, powerful but illiterate

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106 Point 19 of the UN Millennium Declaration (U. N. General Assembly 2000) sets out objectives to be achieved by 2015, including one relating to universal elementary education:

“To ensure that, by the same date, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling and that girls and boys will have equal access to all levels of education.”

107 e.g. persons’ capacity to sign at christenings, weddings etc
kings used Muslim clerics to keep records in Arabic; no stigma was attached to illiteracy” and goes on to observe that even in “the early twentieth century, fathers preferred to send slaves rather than sons to schools established by the French colonists” (1989 p64) Goody and Watt (1963 p314) cite evidence of the illiteracy of most Sumerian, Akkadian and Egyptian rulers. Graff places the meaning of ‘literacy’ in an historical context and discussing the “unproblematic status” of conceptions of literacy and remarks:

That subjects such as literacy, learning, and schooling, and the uses of reading and writing are simple, unproblematic notions is a historical myth (Graff 2003 p128).

Graf and Kaestle are each major scholars in the history of literacy, and what follows is largely drawn from their work. The “big picture” that emerges is sketched via a number of specific points that clash with commonly held ideas connected with literacy, summarised below.

Table 23 Refutations of commonly held views on literacy

<table>
<thead>
<tr>
<th>Literate and illiterate are not dichotomous categories</th>
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</thead>
<tbody>
<tr>
<td>Mass literacy in Europe preceded the Industrial revolution.</td>
</tr>
<tr>
<td>Mass literacy has not always been associated with schooling.</td>
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<tr>
<td>The rise of modern (industrial) society has sometimes been associated with decreased literacy.</td>
</tr>
<tr>
<td>Literacy has led to personal intellectual confinement as well as to ‘liberation’.</td>
</tr>
<tr>
<td>Acquisition of literacy has a tenuous connection with personal economic advancement.</td>
</tr>
<tr>
<td>Oral cultures have not atrophied after contact with written cultures.</td>
</tr>
<tr>
<td>Literacy may not involve reading and writing: - not just individuals but large groups may be able to read but not write.</td>
</tr>
<tr>
<td>Claims of correlation of literacy to such matters as industrialisation, wealth and productivity, political stability, democracy and urbanisation are all fraught.</td>
</tr>
<tr>
<td>Literacy rates affect fertility rates</td>
</tr>
</tbody>
</table>

(Kaestle 1985 esp. pp 1-18; also Graff as cited below)

This is a fascinating area backed by numerous detailed studies of specific aspects of literacy at specific places and at specific times. There are tendencies for literacy to be associated with change in various social parameters: fertility, industrialisation, democracy etc – the list is long. However each claim of a universal causal connection of any one parameter to literacy is demolished when a single historical study produces a well-founded refutation. To do justice to this area would require more than this entire chapter, but it is worth giving at least a few examples.

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from that page: Ashurbanipal (668-626 B.C.) records that he was the first Babylonian king to master the “clerky skill"
Thus Kaestle (1985 p15) cites studies which show that literacy grew in England during the seventeenth century and late nineteenth century at times of cultural and political upheaval, while the period of industrialisation through the late eighteenth to early nineteenth centuries coincided with stable literacy rates. His regional studies of literacy in Devon and Lancashire show literacy falling with industrialisation, though (further illustrating the danger of generalisation) apparently for different reasons.

Additional evidence of the lack of a causal connection between literacy and industrialisation is the case of Sweden where 90 percent literacy was achieved by 1720 in a largely agrarian society and without the existence of any school system (Kaestle 1985 p23).

Contemporary India also cast light on the literacy-industrialisation relationship. Three of the most literate states (Kerala, Mizoram, Tripura) are not highly industrialised and plotting literacy against a proxy for ‘industrialisation’ for all states does not suggest that literacy and industrialisation are correlated. The proxy used for ‘industrialisation’ is the share of gross state domestic product associated with ‘manufacturing’. For Kerala this was 7 percent, for Mizoram 1 percent and for Tripura 4 percent (Planning Commission 2013)\textsuperscript{109}. The following plot shows data for twenty-eight states.

Moreover in Mizoram a substantial part of the rapid increase in literacy in the 1980’s was achieved outside the school system via the efforts of volunteers working in each community. The motivation, as in 18th century Sweden, was the desire to read religious texts (Chugh 2009 p12).

\textbf{Figure 10} Literacy rates vs ‘industrialisation’ for Indian states

\textsuperscript{109} The Planning Commission data has ‘industry’ and ‘manufacturing’ as separate categories. The former includes electricity generation, the latter low skill food processing. It is not obvious which (or their sum)
Graff reviewed the then existing literature relating literacy and education to fertility, commonly taken to back the assertion that rising literacy and/or education led to lower fertility rates, and found that while “at first glance there seems to be a surprising and apparently reassuring degree of consensus”, that when “the surface is broken much of this consistency begins to blur, if not in fact disappear” (Graff 1979 p4)

In opposition to the historic disconnect between literacy and social position discussed above, Gee (1991) argues that one of literacies major benefits is as ‘social currency’: learning the hidden rules and cultural codes of the dominant culture facilitates upward mobility.

Others argue that while benefits accompany literacy they come not from literacy per se but from the context of its acquisition and the effort made to acquire it (e.g. Auerbach 2004 p2).

**Modern social science evidence about literacy’s benefits**

Literacy is complex, the consequences of literacy may not always be what its advocates envisage but studies suggest that the effects are real. A recent study by Burnett (2005) for UNESCO’s Education for All - Global Monitoring Report carried the subtitled “Literacy for Life” and surveyed the benefits of literacy based on a set of commissioned papers.

Burnett’s study commences with cautions on the difficulties involved in assessing literacy’s benefits. These include the fundamental observation that it is difficult to obtain systematic, evidence based data on the benefits of literacy. Literacy is not defined in a consistent way and research often conflates ‘literacy’ and ‘schooling’. Moreover the supposed effects can be difficult to assess - what is meant by the ‘cultural effects’ of literacy, and how could they be measured? This supposed effect is a social one while most research focuses on the benefits of literacy to individuals with the impact on social groups getting less research attention (summarised from Burnett 2005 p138)

Again space prevents a comprehensive summary of what is presented. The context here is of interest. Burnett’s report is for an international program promoting education and literacy conducted by an organisation (UNESCO) whose inattention to some basic facets of literacy have been noted previously. Although Burnett acknowledges the

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110 “Princeton historian Lawrence Stone once remarked that if you teach a man to read the Bible, he may also read pornography or seditious literature; put another way, if you teach a woman to read so that she may know her place, she may learn that she deserves yours” (Kaestle 1985 p34)
difficulties in reaching definitive conclusions about the benefits of literacy, his report devotes seven pages to setting out the benefits of literacy, summarised in the following table:

<table>
<thead>
<tr>
<th>Human benefits</th>
<th>Social benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>self-esteem</td>
<td>health</td>
</tr>
<tr>
<td>empowerment</td>
<td>reproductive behaviour</td>
</tr>
<tr>
<td>Political benefits</td>
<td>education</td>
</tr>
<tr>
<td>Political participation</td>
<td>gender equality</td>
</tr>
<tr>
<td>democracy</td>
<td>Economic benefits</td>
</tr>
<tr>
<td>ethnic equality</td>
<td>economic growth</td>
</tr>
<tr>
<td>post-conflict situations</td>
<td>returns to investment</td>
</tr>
<tr>
<td>Cultural benefits</td>
<td></td>
</tr>
<tr>
<td>cultural change</td>
<td></td>
</tr>
<tr>
<td>preservation of cultural diversity</td>
<td></td>
</tr>
</tbody>
</table>

(Burnett Pp 138 - 145)

In each section numerous studies are cited as evidence of literacy’s benefits in that particular area and Burnett’s concluding remark is unequivocal that “literacy is a right and confers distinct benefits”.

In contrast the five commissioned research papers on which this section of the report is based reach much less definitive conclusions, as summarised in what follows.

1. Cameron and Cameron in a paper assessing the economic benefits of literacy provide a slightly different framework for considering all the effects of literacy (Cameron et al. 2006 p6) before going on to conclude that the empirical evidence for a connection of literacy to economic growth is ambivalent. They reviewed thirteen studies relating literacy/education\(^\text{111}\) to economic growth. Four reported no correlation, one a negative relationship, while seven indicated some degree of economic growth with improved literacy/schooling. They present a graph (Cameron et al. 2005 p11) plotting per capita GDP growth against growth in literacy rates for about 100 countries over the period 1990 to 2000 showing no correlation between the two, while Burnett’s report includes a different graph showing the Gini coefficient against ‘inequality in literacy’\(^\text{112}\) for 12 OECD countries - with a strong positive correlation (Burnett 2005 p144). From this Burnett concludes that it may be that literacy reduces inequality or it could be that nations intolerant of inequality have strong literacy programs\(^\text{113}\).

\(^{111}\) Cameron and Cameron comment on the different effects of ‘literacy’ and ‘education’ and on the tendency for these to be conflated in studies.

\(^{112}\) “The Gini coefficient is an indicator of income inequality. Inequality in literacy is measured by the ratio of the literacy rate for the ninth decile of the income distribution to the rate for the first decile.” (Burnett 2005 p144)

\(^{113}\) The intricacies of the literacy/development/inequality connections are illustrated by the work of Anh and Mayer in Vietnam. Their work does not show that the country as a whole has benefited
2. Farah (2006) in assessing literacy’s cultural impact also notes the difficulty of reaching definitive conclusions given the small range of studies, the inherent difficulties in measuring cultural impact, and variations in methodology and definitions across the work in this field. Her tentative conclusions are that the research suggests that there are cultural benefits to literacy, but these are long term and mediated by other factors. She also notes that most studies involved women and it was hard to find research that looked at the cultural impact of literacy on men.

3. Stromquist (2006) in surveying the political impact of literacy noted the small number of studies, particularly those of quantitative nature, from which to infer firm conclusions. She concluded that qualitative data, often self reported by participants on the way they felt about acquiring literacy, can provide more insightful information about the meaning of literacy to people’s lives. Though Stromquist was considering the ‘political’ dimensions of literacy, she concludes that improved self-esteem is one benefit of literacy most firmly supported by the studies she surveyed.

4. Robinson-Pant (2006) in considering the social benefits of literacy also noted the small number of studies in the area and that the majority focused on women with a paucity of data in regard to men. She found the evidence suggestive of a positive effect of literacy on women’s health, on gender equality and women’s empowerment but cautioned that these benefits also depended on local contextual factors such as social, economic, cultural and political.

5. Patel (2006) considered the ‘human benefits of literacy’. He surveyed educational and ethnographic literature to look for evidence of cognitive change resulting from literacy acquisition as well as its effects on empowerment. He concluded that evidence for empowerment (again mainly women in the studies) was ambivalent - “literacy does not have a linear effect on individual and community empowerment” (Patel 2006 p19) - and context dependent. Regarding cognition: “mere acquisition of literacy does not result in qualitative changes in the intellect and that the effects of literacy are more likely to be determined by formal schooling, socialisation, and the cultural practices of a particular society” (Patel 2006 p20).

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* economically from the overall high literacy rate. However regional literacy rates have affected investment. This, though, via the agency of government officials rather than a direct effect on investors (Anh et al. 1999). An unexpected relation between education and employment in shown in the National Family Health Survey records where employment rates fall with increasing level of education among males aged 15 to 49;- 96% for those with no education, 78% for those with 12 or more years of education (and intermediate rates for intermediate levels of education) (International Institute for Population Sciences 2007 p70 table 3.7.2). This may, of course, have more to do with educated youth, 15+, still pursuing education and the well educated wealthy not needing it, than with a negative causal effect of education on employment opportunities.
These five background papers, like Burnett’s Global Monitoring Report itself, ostensibly provide an overall picture of the benefits of literacy. However it should be noted that some portions are biased towards studies from certain countries. While Cameron and Cameron draw on literature reporting on all parts of the world, each of the papers by Farah and Patel rely heavily on studies in ‘developing’ countries. In connection with literacy of each of the areas surveyed it is almost certain that there are differences between countries. Not just between those that are ‘developed’ and ‘developing’ but between countries in each group with different cultural backgrounds. There are regional differences too within countries. The point which emerges from this review is the difficulty of making generalisation about the effects of literacy. Literacy of itself does not automatically bring tangible benefits - the social context is important.

Given the widely held beliefs on the benefits of literacy that are challenged by some of the material presented above the researcher looked briefly for evidence in an area outside the usual literacy domains of education, sociology and development studies to read what was being written by cognitive scientists. A brief survey of this follows.

**Neurological and cognitive science evidence about literacy’s benefits**

The studies of Vygotsky and Luria (1976) conducted in central Asia in the 1930s are frequently cited. They showed that newly literate people categorised items in a different manner to the still illiterate members of the same population. Olson cited this and many other studies to back his claim that:

> "Concepts basic to Western science, and to our understanding of language, are by-products of alphabetic literacy, and that the acquisition of these concepts by young children accounts for a major shift in their cognitive processes, namely, the rise of subjectivity" (Olson 1986 p109).

This argument, supportive of the sharp distinction asserted by the literacy hypothesis between literate and non-literate societies in terms of cognitive skills has been challenged by many.

However recent work in the cognitive sciences does support the proposition that literacy affects cognitive skills, though in a more nuanced way than was originally suggested.

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114 The reciprocal side of this are the cognitive science studies on the processes involved in reading summarised by Breuer in Chapter 6 of *Schools for thought* (1994). For an extensive survey see *The Cognitive Science of Reading* (Pressley 1997).

115 The specification of alphabetic literacy has interesting implications for other orthographies (Chinese, Korean, Japanese) - a point noted in a later footnote.

116 It may be that though the gross differences postulated by Goody and Watt between literate and non-literate societies do not exist some basic but less pronounced forms do arising from the subtle differences in cognitive skills being detected between literate and illiterate individuals in current cognitive science research.
Dellatolas et al provide detailed discussion regarding a number of specific cognitive tasks and concluded that there is:

“converging evidence from studies comparing normal illiterate with normal literate subjects that neuropsychological test performance depends on literacy, even for tasks that do not directly involve reading and writing” (Dellatolas et al. 2003 p771).

Dellatolas et al explain that in many previous studies the modes of assessment of cognitive skills may themselves have been affected by literacy. They included tasks such as naming of stick figures and construction of patterns from sticks that had no apparent connection with reading and writing. On some of these tasks there were distinct differences between literates and illiterates. They emphasised that the differences are task specific and that for many cognitive tasks no differences are found between literates and illiterates. They pointed out that this “is an argument against a unique general cognitive factor hypothesis” such as is implicit in theories that assert a distinct divide between literate and non-literate societies. Other researchers to state broadly similar conclusions are Manly et al. (1999), Matute et al. (2000), Johnson et al. (2006) and Reis and Castro-Caldas (1997).

These studies carry into the domain of cognition the conclusion from research into other benefits of literacy: that broad generalisations about literacy are not warranted by the evidence from empirical research. To further illustrate the dangers of generalisation one should note the contrast between those results of laboratory studies and conclusions from some ethnographic research. Bernardo (1998 p128) wrote “there is no fundamental difference between the mind of the illiterate person and that of the literate individual” and asserted that both literacy and specific cognitive skills were related to particular community practices rather than just to literacy. Bernardo (2000) also reported ethnographic research on the degree to which cognitive skills related to literacy are specific to the domains in which the literacy practices occur, and raised doubts about the extent to which such skills are transferred by individuals to domains other than those in which they were acquired or normally used.

That literacy has so often gone unexamined, by educationists, policy makers and politicians just attests to the widespread hold of the notion of literacy as an inherent ‘good’. The historical studies those from modern social and cognitive sciences reinforce each other in showing that literacy is a multi-threaded concept and that simplistic ideas about what literacy is and what benefits it brings are likely to be misleading. A common view of literacy has been that there are collections of benefits that are consequences of its acquisition. Formulated in academic terms this is the “literacy

117 Office work, agriculture, religious practices, reading newspapers etc.
hypothesis” that is behind the past fifty years of debate on literacy. In its strongest form the literacy hypothesis postulates a ‘great divide’ between literate and non-literate societies; one that results in distinctively different patterns of thought among persons in societies of each type.

**Contested views of literacy**

The ‘Great Divide’ - literacy as “Ideology” or ‘the Literacy Myth’?

Examination of the supposed benefits of literacy has gone hand in hand with debate about what literacy “is”. This section examines those interconnections. Literacy has long been associated with education and civilisation. The dichotomy between civilised and primitive cultures was challenged by Lévi-Strauss who argued that people in ‘primitive societies’ were as capable of abstract thought as those from civilisation (Lévi-Strauss 1966). He did, however, claim that hierarchical classification was more evident in literate societies and makes a distinction between mythic thought in primitive societies, characterised by ‘bricolage’\(^{118}\), and scientific thought in modern society.

Goody and Watt (1963) argued that the Greek development of alphabetic writing produced a distinct cultural change. After asserting that pre-literate societies lived in the present they write:

> “Literate societies, on the other hand, cannot discard, absorb or transmute the past in the same way. Instead their members are faced with permanently recorded versions of the past and its beliefs; and because the past is thus set apart from the present, historical enquiry becomes possible. This in turn encourages scepticism. The kinds of analysis involved in the syllogism, and in the other forms of logical procedure, are clearly dependent upon writing, indeed upon a form of writing sufficiently simple and cursive to make possible widespread and habitual recourse both to the recording of verbal statements and then to the dissecting of them” (Goody et al. 1963 p345).

This assertion of a definitive difference in thinking between literate and non-literate societies is known in literacy studies as the “great divide” theory. As the cause of the difference is said to be the acquisition of reading skills, and to be *just a consequence of gaining those skills*, this is also known as the autonomous model of literacy. The term was introduced by Street to distinguish this notion of literacy from the distinctly different model he proposed (Street 1984). In the autonomous model literacy is understood as purely an interaction between the reader and marks on a page; becoming literate relies on changes within the individual such that they can decode those marks. Following Goody and Watt other proponents of this view include Olson (1986), Farrell (1977) and Ong (1972).

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\(^{118}\) ‘bricolage’ - a collection of what’s readily available.
Disputing this notion of literacy as purely a collection of technical skills possessed by each individual is a range of ideas which hold that any individuals’ reading and writing can’t be separated from the social context in which they are acquired and practised. Though such ideas are not new, they were set out in a coherent form by Brian Street in “Literacy in Theory and Practice” (1984). To contrast this model with Goody and Watt’s views, Street coined the term “ideological view of literacy” to describe his ideas. The adjective ‘ideological’ is not intended to imply a connection with any political ideology (liberalism, Marxism, capitalism etc), just that literacy cannot be separated from the social context in which it takes place.

In Street’s words:

“The model stresses the significance of the socialisation process in the construction of the meaning of literacy for participants and is therefore concerned with the general social institutions through which this process takes place and not just the explicit ‘educational ones. It distinguishes claims for the consequences of literacy from its real significance for specific social groups. It treats sceptically claims by western liberal educators for the ‘openness’, ‘rationality’ and critical awareness of what they teach, and investigates the role of such teaching in social control and the hegemony of a ruling class. It concentrates on the overlap and interaction of oral and literate modes rather than stressing a ‘great divide’” (Street 1984 p2).

When considering attempts to define literacy and its significance to individuals some of the points Street lists as characteristic of his ideological model are relevant:

1. It assumes that the meaning of literacy depends upon the social institutions in which it is embedded;
2. Literacy can only be known to us in forms which already have political and ideological significance and it cannot, therefore, be helpfully separated from that significance and treated as though it were an ‘autonomous’ thing;
3. The particular practices of reading and writing that are taught in any context depend upon such aspects of social structure as stratification (such as where certain social groups may be taught only to read), and the role of educational institutions (such as in Graff’s (1979) example from nineteenth century Canada where they function as a form of social control);
4. The processes whereby reading and writing are learnt are what construct the meaning of it for particular practitioners (Street 1984 p8).

Within this paradigm there can be no simple definition of literacy, nor a simple measurement of it.

The ideological model that Street claims to have identified has provided the framework for much writing and research on literacy since 1984. Frequently the research has focused on the details of specific literacy practices among particular groups. This builds up a rich picture of literacy, but makes it difficult to frame generalisations of the type that emerge from the autonomous model.

Bernardo has worked within the ideological framework to investigate how literacy rates in a community, and how the uses of literacy within a community, affect both individual literacy acquisition and its social consequences. For Bernardo it is not just literacy rates
(as percentages of individuals who can read and write) that are important but the extent of “literacy integration” in the community. This is the term used by Bernardo to refer to the degree to which a community has integrated literacy practices within all daily routines. He reports that this has significance for the spread of literacy as well as for the ‘self worth’ of illiterates. The latter are to some extent separated from the general community when there is a high level of literacy integration, but are integrated into those communities where literacy integration is low. Further blurring any sharp distinction between literates and illiterate he notes that non-literates can access some of literacy’s benefits via literate family members or literate friends (Bernardo 2000 p460).

In India Chudgar has written of adult literacy rates as a form of community “social capital” and has shown that:

> having a greater proportion of illiterate women in a district confers an additional disadvantage on the schooling outcomes of the girls there (Chudgar 2009 p408).

An influential educator who emphasises the social context of literacy but does not fall neatly within Street’s ideological paradigm was the Marxist-Catholic Paolo Freire. His views on literacy cannot be separated from his overall approach to education. This, in simple terms, can be described as political in that he saw the purpose of education as being to empower the individual in order to achieve emancipation from oppressive social structures. He saw all aspects of education directed to this end. His most influential book, Pedagogy of the Oppressed (1970), sets out this educational program but does not explicitly mention literacy, though its importance is implicitly assumed if the emancipatory goal of education is to be achieved. Freire sets out his approach to literacy in a later work, Literacy: Reading the Word and the World, when he calls for:

> “a view of literacy as a form of cultural politics. In our analysis, literacy becomes a meaningful construct to the degree that it is viewed as a set of practices that function to either empower or disempower people. In the larger sense, literacy is analyzed according to whether it serves to reproduce existing social formation or serves as a set of cultural practices that promotes democratic and emancipatory change” (Freire et al. 1987).

Thus while Street emphasises the socio-cultural aspects of literacy as a necessity for understanding how literacy is acquired and used, for Freire those aspects of literacy are important because of the benefits that will follow literacy’s acquisition.

Freire’s goals for education have been frequently cited in educational writing and by some people involved in designing programs. However, his contribution to an examination of literacy is limited. In Freire’s educational/political model, literacy was a tool to be used for its social connections. The gist of that Freirean view of literacy is summarised by Giroux in this way:
".. literacy for Freire is inherently a political project in which men and women assert
their right and responsibility not only to read, understand, and transform their
experiences, but also to reconstitute their relationships within wider society. In this
sense, literacy is fundamental to aggressively constructing one’s voice as part of a
wider project of possibility and empowerment" (Giroux 1989 p 153).

But, as Street observes, Freire’s views of the nature of literacy and its effects may not be
too different from those of Goody:

"his analyses often appear to be rooted in the kinds of theory of cognitive
development and of the relationship of literacy to rationality that are explored in
Section 1 ….. While representing in some ways a shift towards an ‘ideological’
model of literacy, Freire seems to have not entirely shrugged off the assumptions
of the ‘autonomous’ model" (Street 1984).

This seems a valid point. Freire’s rhetoric connecting an individual’s political and social
emancipation with gaining literacy, and his conduct of literacy classes for that end,
seem at first sight to place Freire within the school of thought that emphasises literacy’s
ideological dimensions. However, reflection suggests matters are not so simple. Street’s
ideological model of literacy notes an interaction between literacy and its social context.
In this framework we can understand the diverse pattern of outcomes connected with
literacy – the pattern which historical, sociological and cognitive studies reveal. The
autonomous model by contrast suggests consequences flowing from literacy. It is that
assumption that leads Freire to place importance on acquiring literacy. Underlying
Freire’s ideas is a view of literacy that falls within the autonomous model: learn to read
and write and desirable consequences will result.

Freire is strong on rhetoric and on the emancipatory focus of his critique of education.
There is less in the way of evidence about its effectiveness. This comment is not
intended as a balanced critique of Freire’s work - that is not its purpose. But some
attention to outcomes from Freirean methods is needed. Freire’s objectives are ones
which deserve wholehearted support; the point is whether his understanding of literacy
was sufficient for his approach to give the result he hoped for. Learning to read and
write with materials of relevance to learners and which reflect on their socio-economic
conditions is more likely to lead to literacy, in its widest sense, than a simple focus on
reading as a set of technical skills. To achieve what Freire intended we may need the
richer understanding of literacy’s connections to the learner’s social context which can
arise from working with Street’s ideological model.

The experiences of educators and researcher/participants working in literacy programs
inspired by particular views of literacy are instructive. Once again space prevents a
comprehensive review of such work. In many reports of that type the relatively short
duration of the study limits the weight one feels confident in giving to the conclusions.
The limited scope of the observation of literacy’s impact on the individual’s social connections and sense of self also limit confidence in the conclusions. An issue that appears in many of these studies is the discrepancy which an educator/researcher reports between their initial, theory based, expectations and what they observe. This is not necessarily a reflection on the “failure” of any particular theory so much as a series of practical illustrations of the difficulties in making valid generalisations about literacy. That difficulty, of course, shows up in the reported discrepancies as theories require generalisation. Five examples of this type follow:

1. Bartlett worked for two year with neoliterates attending Freirean inspired courses in Brazil and found that theoretical ideas behind those courses about literacy and development, and about literacy and empowerment, didn’t mesh with her observations. While some participants in literacy classes did gain economic improvement it was not literacy per se that brought about the change but the contacts they made – the expansion in their social networks as a result of participating in classes - which led to improved economic opportunities:

“literacy schooling did help some people secure greater economic opportunity— but not in the ways that contemporary development discourse predicated on human capital theory predicts it might. At least in the short period of 1 year of literacy classes, students did not improve their economic situations as a result of their increased proficiency in reading and writing. Instead, literacy schooling helped some students to expand their social networks in ways that benefited them economically” (Bartlett 2008 p746).

Nor did literacy have the effect on political participation that followers of Freire, and others, expect:

“Freirean critical literacy asserts a link between reading and writing, reflection, and social action. The comparative case study I conducted questions the purported links between literacy and political participation. In general, the students in the two public school literacy programs did not experience, nor did I observe, changes in their political participation during the study period” (Bartlett 2008 p747).

2. Freire’s writings are widely used in US teacher training and Yagelski, reflecting on his experiences in teaching English in an economically deprived rural setting in New York State, tried to reconcile his initial belief in the emancipatory literacy of Freire with the reactions of his pupils and concluded:

“that power resides not solely in the capacity to understand political discourse in what is supposed to be a democratic society or the so-called basic skills required for adequate employment in a capitalist system, but in a myriad of more mundane ways that often have a far more direct and profound impact on our lives:

- the ability to understand a lease or notice from a public agency;
- to negotiate a car loan agreement;
- to make sense of a curriculum document from your child’s school;
- to submit a petition to a town council or school board”

| abbreviated: 14 other points made in original | (Yagelski 2000 p5)

119 See “An analysis of syllabi from a sample of America’s schools of education” (Steiner et al. 2004)
3. Stuckey (1991) reflected on the socio-cultural connections of literacy in Street’s ideological model and objected to the notion that literacy might be seen as a significant mediator of social problems. Stuckey argues not that the autonomous model is correct but that the connection between literacy and an individual’s social situation is asserted too strongly by many taking the ‘ideological’ standpoint: “because the assumptions about economic and social forces on which they are based are faulty” (Stuckey 1991 p vii). Thus, becoming literate does not necessarily lead to a change in one’s social situation as literacy is just one element of the “entrenched class structure in which those who have power have a vested interest in keeping it” (Stuckey 1991 p vii).

4. Dyer and Choksi (1998) worked with a largely illiterate group in India, the Rabari, whose nomadic way of life was threatened by change in wider society. Dyer and Choksi expected that acquiring literacy would empower the Rabaris by giving them skills that would help in sustaining their traditional nomadic existence. They found that the Rabari primarily valued literacy for functional purposes such as reading bus tickets and timetables and see each such activity as discrete:

“They do not connect these activities within an overarching conceptual framework; nor understand reading as a source of knowing more of the world around them. Overall, their use of literacy was limited to what was appropriate in their own daily lives, and required to cope with tangible aspects of the ‘modern’ world (such as buses) that had penetrated the local environment. Their understandings of literacy are conditioned by what they observe as non-practitioners, so they see literacy as a set of identifiable skills rather than an educative process” (Dyer et al. 1997 p486).

The authors state that the “Rabari’s do not link literacy with change” nor with “with empowerment in the political sense assumed by advocates of literacy”. If this suggests a lack of sophisticated understanding we should reflect on the fact that the Rabaris saw their traditional lifestyle as no longer viable and becoming literate as having no impact on this. Education, however, which they saw as distinct from literacy⁷, offered hope in adapting to social change. The Rabari appear to view literacy as a set of autonomous technical skills.

5. The Total Literacy Campaigns (TLC) in India. The brief discussion of ‘alternative’ education in India, part of chapter 1, made mention of the KSSP (Peoples’ Science Movement) in Kerala. An offshoot of this, with similar objectives of empowering people via education, began a mass adult literacy campaign in Ernakulam, an urban area of the state. The immediate objective was to achieve 100 percent adult literacy through a campaign employing trained volunteers, backed by sympathetic local

⁷ In the Rabari view “literacy” was learning to read and write. This could be learned in school or without going to school. “Education” was acquired through schooling and gave new knowledge.
government - hence the name Total Literacy Campaign. Unlike many attempts at raising adult literacy this was focused on literacy as a skill of use to the learners and made heavy use of texts encountered in everyday life and popular reading materials rather than the type of ‘beginning reader’ texts commonly employed in which literacy is abstracted from daily experience. Thus the approach to literacy was entirely within Street’s ideological model (Dighe 2000). The success of the Ernakulam campaign led to the model being, supposedly, adopted by the Union Government and evolved into the National Literacy Mission. The word ‘supposedly’ is used because while the form of the original was retained key aspects of its reality were not. Where the original had self-motivated volunteers driven by an impulse for community empowerment through education and able to choose and adapt methods and materials to suit that purpose, the government copy often became bogged in bureaucracy. Local people collected to run units of the national campaigns often lacked activist experience nor did they share the motivation that existed in the original volunteers. Methods tended to become those laid out centrally; contentious, though useful and engaging, texts were prohibited[121]. The objective became the capacity to decode letters rather than make sense of text. An ideological approach to literacy had been transformed into an autonomous one (Rao 1993; Saxena 1993; Saldanha 1995).

Some recent scholars of literacy have begun to move past the autonomous/ideological partition which has characterised the field for the past quarter century (e.g. Maddox 2007 Pp 256 -257)[122]. That the autonomous model is simplistic, particularly in its sharp literate/illiterate divide, is not being questioned; rather the specificity of individual ethnographic studies is seen as obscuring general patterns associated with literacy.

Brandt et al are concerned that the ideological model (‘the new paradigm’), even while emphasising the connection of literacy to the wider social setting, sets up other divides:

> “the new paradigm has created methodological and conceptual impasses that make it hard to account fully for the workings of literacy in local contexts. We will argue, in fact, that the new paradigm maintains its own, tacit great divide – one that

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[121] The TLC campaign in Nellore (Andra Pradesh) meshed with an ‘anti arrack’ (anti liquor) campaign that was opposed by those selling the drink. Unrest ensued, and TLC texts were banned (Dighe 2000 p14)

[122] An aspect of Goody and Watt’s view which has not attracted the attention given to their claims for ‘literacy’ are the benefits they associated with different orthographies; with phonetic, alphabetic, systems as superior: “China, therefore, stands as an extreme example of how, when a virtually non-phonetic system of writing becomes sufficiently developed to express a large number of meanings explicitly, only a small and specially trained professional group in the total society can master it, and partake of the literate culture” (Goody et al. 1963 p313)

One is struck not just by the grand claims based on the preceding abstract reasoning without empirical evidence but by the actual evidence of the contemporary literacy rate in China!
assumes separations between the local and the global, agency and social structure, and literacy and its technology” (Brandt et al. 2002 p238).

This reinforces Graff’s point that all generalisations about literacy are wrong if read in deterministic fashion. He coined the term “the literacy myth” to describe the beliefs that literacy would be the determinant of a range of social outcomes. There are trends and associations but no causality. The same point is made by Bartlett:

“there is no predictable “impact” of literacy on development. Instead, I show that the opportunities afforded by literacy depend greatly on the types of literacy and the types of literacy programs made available to students, as well as students’ cultural understandings of literacy and the social, political, and economic contexts within which they attempt to assert new literacy practices” (emphasis in the original) (Bartlett 2008 p737).

Bartlett does not give examples of specific programs that have a particular impact because she does not interpret her observations in that manner. What individuals make of the skills they gain depends on both their own backgrounds and attitudes towards literacy as well as the whole nature of the literacy program. In Bartlett’s words:

"Literacy is not an agent: literacy is a tool variously taken up by students with their own histories and literacy ideologies. The impact of literacy programs on the students who participated in my study was filtered through their specific, cultural definitions of education, their social networks, and their positioning in larger social structures" (Bartlett 2008 p751).

This is not very helpful in terms of designing literacy programs which look for particular actions having predictable outcomes. The “small” scale of Bartlett’s study - 41 students, in four programs, run in two cities over a 24 month period – make it unlikely that any general patterns will emerge. This is so because the effects are probabilistic rather than deterministic and there are many variables involved, some of which are difficult to measure. She comments that larger scale and longer duration studies are needed (p745). This returns us to the point made by Maddox and Brandt; that when literacy is viewed across a large number (of preferably large scale) studies in different cultures some general trends may be discerned, though in neither case are the authors specific about what they are.

Measuring Literacy

Measures of literacy depend on what we conceive it to be. The set of technical skills assumed by the autonomous model is likely to be easier to measure than notions derived from the ideological model which involve the uses, and social connections, of reading/writing skills. While a test based in the autonomous model might require a person to read a passage about (say) the census, the tester within the ideological school would want to know what the reader understood from the words they enunciated - matters, perhaps, such as what a census involves, or how it affects the reader. Whereas the ability to read the words with some level of fluency can be judged without too much
difficulty, assessing what the reader makes of them is more difficult. The two approaches can give very different literacy rates for the same population.

An example of this difference can be seen from US figures. Data from the US census for 1959 (US Department of Commerce) gave an adult literacy rate of 97.8 percent based on the measure “able to read and write”.

Similar values continue to be quoted\(^ {123}\) to the present (though the US census has not collected literacy figures for many years). A 1993 study, the National Adult Literacy Survey, used a more complex definition of literacy: “Using printed and written information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential” (Kirsch et al. 2002 p2). The result was that the 1993 study concluded that well over 20 percent of adults were not “able to locate information in text” (Kirsch et al. 2002 Page xvi).

Thus for the USA we have the ‘US Census’ literacy rate of about 98 percent and that National Adult Literacy Survey of 80 percent.

Such differences should not surprise us. Working from a limited definition of literacy “as the ability to read and write”, we must ask ourselves ‘how do I know that someone can read and write?’ This question is then followed up by another question: how much and how well can a person read and write? Is the person who hesitantly pronounces words syllable by syllable as their finger moves along the line of text, literate?

Further, what of the person who fluently reads word from a page but who has little inkling when questioned as to what the passage was about? All of us, those who consider ourselves highly literate, can readily be put in the latter situation when presented with text whose content concerns a matter about which we have scant knowledge\(^ {124}\). This brings to the level of each individual the contrast between Street’s ‘autonomous’ and ‘ideological’ models of literacy. Under the former being able to read out the words in any text indicates literacy, while the latter requires the person to make some kind of sense from them. Items assessing ability to make sense of text form part of the 1993 US study (Kirsch et al. 2002 p17).

The ability to write one’s name, to read a bus ticket, to read street signs, as well as tests with a mix of tasks, have all been taken as indicators of ‘literacy’. That universal

\(^{123}\) E.g. CIA World Fact Book (Central Intelligence Agency 2010)

\(^{124}\) The researcher regards herself as literate, but makes little sense of Quantum Nature of the Big Bang (http://arxiv.org/pdf/gr-qc/0602086 ). Familiarity, if not expertise, with particular domains of knowledge matters!

Is the Professor of English reading that paper literate or illiterate? The response is reflective of the difference between holding ‘autonomous’ and ‘ideological’ views of literacy.
agreement has not been achieved regarding a test for literacy is not the issue - for a particular context literacy can be defined by specifying some relevant criteria. But a larger question remains – can what is conjured up by the word ‘literacy’ be captured by any such ‘simple’ test? A large section of the literature on literacy asserts the position that this is not possible; that all such attempts miss an essential element of what it means to be literate.

Nevertheless attempts continue. Measuring literacy is important to those conducting (or paying for) literacy programs: education systems, governments, NGO’s and international agencies. It is also of interest to literacy researchers. The former group tend to look for simple measures, readily put into practice. Sometimes they also have a vested interest in the results. Researchers too have varied interests – e.g. to make comparisons across time or location or to assess the effect of a particular program.

Of the many attempts to define literacy some are simply statements of what is going to be taken as an indicator of literacy for a particular study or program; some are attempts to set down all the assumed attributes of literacy, some just sweeping generalisations.

To give some idea of their nature and range, here, from a large selection, are just three:

2. “Literacy is the uses to which it is put and the conceptions which shape and reflect its actual use” (Lankshear et al. 1989 p50).
3. “Literacy is the ability to read and write with understanding a simple statement related to one’s daily life. It involves a continuum of reading and writing skills, and often includes also basic arithmetic skills (numeracy)” (UNESCO 2004 p12).

Some definitions are helpful as the basis for measurement, some are not. One can think of a test as a way to operationalise a particular definition of literacy. What test might derive from each of those three definitions of literacy such that would reliably distinguish the illiterate from the literate within a group? While it is easy to operationalise the first definition (given adequate records and access to them) what does such a judgment tell us about the individual’s capacities and outlook? What test could operationalise the second definition given above? Of relevance to this thesis is a clear awareness of different measures used for literacy. Whenever literacy rates are quoted

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125 “simple” varying from (i) “are you literate ?” through (ii) read this [card with five word sentence] to me, to (iii) a structured written assessment of 100 tasks.
126 Such as the teachers in Madhya Pradesh !
127 “Test” not necessarily being a short exam, written or oral. Test, here, is just a procedure, a set of steps, whose outcome determines the question ‘literate or illiterate ?’
the method of measurement needs to be known before one can interpret the figures or make comparisons with those stated for other times or at other places.

Given the simplicity of the autonomous model and complexity of its ideological counterpart, it should be no surprise that many attempts to measure literacy have been embedded in the former approach. In recent decades attempts have been made to construct more nuanced measures of literacy. Reference has been made to the US National Adult Literacy Survey which is made up of 80 items grouped into three literacy domains. Whether or not one sees these new literacy measures as being worthwhile, it is important for anyone dealing with literacy to be aware of their existence and use. Those producing these instruments do so because they believe that knowing what people are able to do with reading skills is part of “literacy” and gives a fuller indication of their capabilities than does just the ability to read a sentence. A number of similar tests have been constructed including “LAMP” (see below) and the literacy assessments conducted as part of the OECD’s Program for International Student Assessment (PISA). Another example is the seven-country initiative called the International Adult Literacy Survey (IALS). This produced a literacy assessment tool with three dimensions each of 33 items similar in many respects to the US National Adult Literacy Survey. First used in 1994, Bartlett comments on IALS:

“While this model is well-regarded in the field, there is growing recognition that it has limited feasibility for development contexts, which require literacy assessments that are “smaller, quicker, and cheaper” (2008 p74).

While IALS was focused on literacy in developing countries another section of UNESCO produced LAMP (Literacy Assessment and Monitoring Programme) for use in the developed world. In this case the following definitions were used:

**Literacy**
A person is literate who can with understanding both read and write a short simple statement on his (her) everyday life. (b) A person is illiterate who cannot with understanding both read and write a short simple statement on his (her) everyday life.

**Functional Literacy**
A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his (her) group and community and also for enabling him (her) to continue to use reading, writing and calculation for his (her) own and the community’s development.[and vice versa].
(UNESCO Institute for Statistics 2008 p17)

LAMP uses a battery of tests to produce a five point scale of levels of literacy, and defines the component skills which underlie ‘fluent reading’.

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128 Prose Literacy, Document Literacy and Quantitative Literacy.
129 Domains as for US measure above. It was based on the definition: “Literacy is using printed and written information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential.” (Kirsch 2001 p6)
130 For background on these definitions, particularly ‘functional literacy’ see (UNESCO 1976)
These multi-item assessments cannot be used as part of a household census. Even in wealthy countries such measures are used with a sample rather than the entire population as the multi-item assessments require individuals to spend of the order of one hour in their completion. The Indian National Sample Survey, one of three commonly used government sources of national literacy data, could conceivably adopt such a measure.

The three national measures of literacy are undertaken by:
1. The Indian Census
2. The Indian National Literacy Mission
3. The Indian National Sample Survey

The Indian census takes as literate someone "who can both read and write with understanding in any language" (Census of India 2007). Inclusion of the phrase “with understanding in any language” suggests an inclination to the ideological view of literacy, not just training in deciphering letters. However ‘literacy’ is determined by the census enumerator simply asking each individual whether they can read and write. If in doubt the enumerator is instructed to ask the individual to read a portion of the text from the enumerator’s manual. The National Sample Survey uses the same definition, but doesn’t require any practical check by the enumerator.

The Indian National Literacy Mission (NLM) has defined four competencies in each of the following areas: reading, writing and numeracy (Department of Education (no date)). This indicates a conception of literacy that requires more than just reading a sentence. But the problem with the NLM figures is that that program uses a self assessment process backed by external audit [see (National Literacy Mission n.d.-a; National Literacy Mission n.d.-b)]. Self assessment of literacy is known to be unreliable (see below) even when guided by criteria, as NLM does. An external check might be expected to improve the validity of the self assessed data, however enquiries have shown the external audit process to be corrupt (Mathew 2005 p15; Saldanha 1999b p2019).

By their nature, assessments such as those of the census of India (and NSS) are ‘binary’: dividing the population into either of two groups, literates and illiterates. Except in the most basic terms they are not actual measures of literacy but counts of the number of

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131 However Drèze and Loh report from interviews with enumerators that this is rarely done, so that the measure is essentially one of self assessment (Drèze et al. 1995 p2868). In footnote 6 of the same article the authors note that the National Sample Survey (NSS) adopts the same definition and same procedure for assessing literacy, but without the check of asking the individual to read some text.

132 Launched on May 5,1988. modelled on earlier voluntary, non-government campaigns such as People's Science Movements (PSM) and the Kerala Shastra Sahitya Parishad (KSSP). (Saldanha 1999a Note 1 p1784)
people in each of two groups. If the data are reliable such figures give a general
indication of the extent of basic reading skills in a population, but nothing about the
capabilities which may be developed from those skills. It is for the latter purpose that
measures such as the US National Adult Literacy Survey, LAMP, IALS etc have been
constructed.

That Indian example raises a significant issue in literacy measures to do with how data
is collected. To simplify we can distinguish three modes:

1. By proxy – where some readily available attribute is taken as an indicator of
literacy (e.g. having completed 5\textsuperscript{th} grade)
2. Self assessment (“can you read and write?”)
3. Direct attempts to assess literacy skills by tasks (of greater or lesser complexity)
administered to each individual

The approaches by proxy and self-assessment are applicable only to criteria based on
simple definitions of literacy. Both are quick and cheap. Direct assessment may also be
used for tests based in the autonomous model, \textit{but is the only possible approach when
tests are located within the ideological paradigm.}

The reliability of data when proxy or self assessment methods are used is questionable.
This point is elaborated in a comprehensive discussion of ‘household surveys’\textsuperscript{133} of
literacy by Schaffner in a paper prepared for the conference which led to UNESCO’s
Education for All Global Monitoring Report 2006. After analysing household literacy
survey data from a dozen countries she concluded that self-assessment/third-party
assessment consistently overstates literacy rates and that the extent of overstatement can
be very large, but is less when a high quality school system is operating. She also found
that the overstatement is greater for men than for women and for those with just a few
years (1 to 3) of schooling (Schaffner Pp 41, 42). Her estimation of the ‘overstatement’
associated with direct assessment was on the basis of comparison with measures made
by some form of direct assessment\textsuperscript{134}.

\textbf{Conclusions: the relevance of the foregoing literature review to the present thesis}

After reading widely about literacy the researcher was struck at first by the realisation
that what she had imagined a relatively straightforward matter is actually one of great
complexity\textsuperscript{135}.

\textsuperscript{133} i.e. those in which members of a household are questioned (or tested) \textit{at the household}, as is a census.
\textsuperscript{134} Schaffner, in extensive discussion (Pp 4 – 11) covers much of great use to those designing literacy
surveys.
\textsuperscript{135} The entries on “literacy” pages 8961 to 8981 in the \textit{International Encyclopaedia of Social Science}
summarised some of the material from reading referenced in this chapter, but don’t provide a succinct
definition of the term.
With further reading came the realisation that some of what seemed complexity was just confusion, initially, it seemed, on her part but then within the body of literature in this field itself. She had the sense of writers in combat but of talking past each other as they used the same words to imply different things and of foregrounding or ignoring particular aspects of what is a complex issue.

There is a ‘skill’, or skills, individuals must gain to read and write and it makes sense to discuss literacy in these terms, just as the researcher might discuss such skills as playing a piano, driving a car, or baking a cake. None of us can do these things instinctively, they must be learnt. Each of these skills is acquired in a particular setting (with social, cultural, political, religious dimensions) and is (or can be) used for various purposes. Each is a potentiality, what we do with it depends not only on the proficiency we have gained with the particular skill, but on our intent and the setting in which we find ourselves.

Ethnographic and historical studies show that there are neither a simply defined set of conditions necessary for literacy to be acquired, nor definite outcomes upon its acquisition. At an individual level we know this to be the case – children with whom we attended school who didn’t learn to read and write, adults who didn’t attend school but picked up reading and writing nevertheless. And we don’t expect every one of our highly literate friends to have become rich, empowered or anything else. Some do, some don’t. Literacy brings potential benefits. Which are realised and how they are used depend on many factors to do with the individual and their social context.

The researcher sees a value in discussing literacy at the level of an individual’s skills: can they decipher marks on a page and make their own in accepted form. At least reasonably accurate measures of such skills are possible; thoughtful design of tasks, resources to implement them and assessors divorced from a personal interest in the results are the essentials. But the true value of literacy lies with benefits that reading skills may bring. Understanding the factors which affect acquisition of basic reading skills and then the development literacy’s full potential is important in order for these be achieved universally. The research is clear that many of those factors derive from an individual’s social context.

During fieldwork the researcher did not attempt to measure the literacy of individuals. In working to assess the nature of elementary education in the two states and the reasons for any differences, an understanding of literacy outlined in this chapter is important in two main ways:
1. When assessing achievement it is important to probe behind figures for literacy rates to uncover what “literacy” is taken to be and how it is judged if valid comparisons are to be made, whether between different places, or at one place over time. From conversations with educators in Himachal Pradesh and West Bengal the researcher is well aware of the significance of this.

2. In looking for factors that have a bearing on schooling achievement, research on literacy tells us that the manner in which reading and writing are taught are very important. Approached as skills disembodied from the child’s life - as mechanical reproduction of writing, and memorised recitation of the sound associated with a few printed words - few (or none) of the benefits claimed to be associated with literacy may be acquired. True literacy is not developed - neither those supposed to flow automatically according to the autonomous model, nor the potential benefits that can arise from literacy acquired in settings established in Street’s ideological context. The basis for obtaining the benefits of literacy comes from approaching its teaching in ways that recognise that literacy draws upon, and reinforces, a child’s social connections; that it is not an autonomous skill.

Action to improve literacy rates can be effective. Those in India jaded by fifty years of effort to reach a continually repeated target need look no further than to neighbouring countries (China, Bangladesh) to see that national success is possible. Within India too we see patches of improvement.

Those many factors that are connected with literacy mean that the approach to lifting literacy rates used in one place may not necessarily work in another. Understanding the factors rather than just recognising them or copying is crucial.

The review of the literature on literacy points to a number of conclusions that are important for the current study. Four main points can be summarised as follows (a) literacies are culturally formed by particular purposes and power relations, (b) we cannot assume cognitive, economic or developmental consequences for literacy, (c) classrooms reproduce particular ideologies of literacy and knowledge and (d) not all literacies empower students.

This chapter has laid the groundwork of an understanding of literacies, to assist the assessment of Indian elementary education. We began by asking what ‘literacy’ is and saw that ideas about that are strongly contested. Research in several fields has shown

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136 ‘Youth literacy rate, population 15-24 years’: India (all genders) 81%., China (all genders) 99%; India (female) 74%; Bangladesh (female) 80% (UNESCO 2014)
that literacy is not a single ‘neutral skill’, but a collection intimately connected with the social context of the learner.

An “autonomous” understanding of ‘literacy’ assumes cognitive, economic and developmental outcomes. The review of the literature on literacy shows that none of these are inevitable consequences of becoming literate. The framework provided by the “ideological” view of literacy provides ways to understand literacy’s successful acquisition and development of its potential benefits.

The rather different literacy capacities developed among students in Rajasthan as compared to those in Himachal Pradesh will become apparent in later chapters laying out the results of fieldwork in the two states and in summaries of other assessments of the educational achievement of students in each state. Similarly some of the factors behind those differences emerge from fieldwork observations in Himachal and Rajasthan; particularly from conversation from students, parents and teachers - those most directly involved in children’s education.
Chapter 5 Rajasthan field study

Introduction

After visiting schools in Rajasthan, and talking with teachers, parents and students, the dominant impression left with the researcher is of a largely dysfunctional system. The simple explanation for the woes of Rajasthan’s schools, as expressed by many parents, is that the problem resides with the teachers. Teachers tended to see the cause of poor student achievement as residing with parents. After observing classes and talking with teachers, students and parents the researcher believes that while the quality of teaching is a very real and obvious concern there are underlying factors which affect the attitude of teachers and that there are also other issues, apart from teaching quality, that detrimentally affect Rajasthan’s schools.

While the term “school” evokes for a reader from the ‘first world’ an image of solid buildings surrounded by playgrounds, staffed by well educated teachers using a range of modern equipment, the same reader may imagine an Indian school in very different terms. Perhaps as a rundown shack or via a bucolic image of a class learning in the open air beneath a village tree. In the same imagination the teacher may well be thought to have no training and little education. For all the problems of Rajasthan’s schools such stereotypes would be wide of the mark: all schools but one had solid buildings, all teachers were tertiary educated and, with two exceptions, had teacher training. The very real problems are not so basic.

Rajasthan is, by area, the largest state in India, its area of 342 000 km\(^2\) making it just 4 percent smaller than Germany. Rajasthan’s population of 68.8 million ranks it 8\(^{th}\) among India’s twenty-eight states; about one third of the population is classified as ‘urban’.\(^{137}\) The state is divided into thirty-three administrative districts most of which cover rural areas.

By income and education Rajasthan is one of the poorer states. By Ministry of Statistics data Rajasthan was 6\(^{th}\) lowest in per capita income (2004-05) and on 2011 census data; 26\(^{th}\) in overall literacy and 28\(^{th}\) in female literacy among the 28 states. It also had the largest gender gap in literacy of any state.

\(^{137}\) A centre with population >5000, <25% males in agricultural work, population density >400 per km\(^2\) (Census of India n.d.)
About 30 percent of the state’s children between 6 and 14 years of age attend private schools - a figure that puts it mid-range among all Indian states\textsuperscript{138}.

The research was carried out in three widely separated rural districts of Rajasthan: Banswara, Jaipur and Karauli, shown on the state map below. Jaipur district hosts the state capital, the city of Jaipur, but the schools visited in Jaipur were all rural ones. These districts were chosen, based on data collected by DISE, as ones with low, intermediate and high student literacy in rural areas; Banswara being the lowest and Jaipur the highest.

\textbf{Figure 12 District map of Rajasthan showing research districts.}

\textsuperscript{138} Data on private schooling in India is notoriously unreliable. Official figures are frequently lower than those from independent surveys by 50% or more. Desai (2009) quotes 32\% for Rajasthan. For a discussion on variation in private school data see Kingdon (2007). One source of confusion is the definition of a “private school”. As well as schools funded and administered by the state there are “government aided schools”. These are privately administered (often by an NGO, charity, community or religious group), not for profit, often obtain the vast majority of funding from government sources and follow the same program as government schools. The argument is sometimes made that these are more akin to government schools than to those that are entirely private. In some states ‘aided schools’ constitute a substantial proportion of the total. DISE classifies aided schools as ‘private’.
The twenty-two state schools visited are all in rural areas of Rajasthan. The schools included “primary” (grades 1 to 5 only) and some with “upper primary (grades 6 to 8) sections as these are often in the same institution, with a single principal, in Rajasthan. The medium of instruction in Rajasthan government schools is Hindi, with English taught as a second language. The schools varied in terms of physical facilities (details given later), though none were well equipped or well maintained. School enrolment varied from 20 to 170 and the number of allocated teachers (‘teacher establishment’) from 1 to 7. The gross school ratio of students per teacher varied from less than 12 to over 50. Class sizes varied similarly but not always because of the overall, notional, student/teacher ratio in a school. Large classes also resulted from amalgamation of grades (sometimes due to teacher absence) and small classes from a high level of student absenteeism.

Among the seventeen schools for which both student and teacher numbers were obtained there was a slight trend to a higher ratio in larger schools but great variation in the figures:

**Table 25 PTR for Rajasthan research schools**

<table>
<thead>
<tr>
<th>total student enrolment</th>
<th>total teachers</th>
<th>student/teacher ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>1</td>
<td>20.0</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>28</td>
<td>2</td>
<td>14.0</td>
</tr>
<tr>
<td>35</td>
<td>3</td>
<td>11.7</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
<td>18.5</td>
</tr>
<tr>
<td>39</td>
<td>1</td>
<td>39.0</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
<td>20.0</td>
</tr>
<tr>
<td>55</td>
<td>2</td>
<td>27.5</td>
</tr>
<tr>
<td>57</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>73</td>
<td>6</td>
<td>12.2</td>
</tr>
<tr>
<td>73</td>
<td>2</td>
<td>36.5</td>
</tr>
<tr>
<td>85</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>103</td>
<td>2</td>
<td>51.5</td>
</tr>
<tr>
<td>105</td>
<td>5</td>
<td>21.0</td>
</tr>
<tr>
<td>105</td>
<td>4</td>
<td>26.3</td>
</tr>
<tr>
<td>109</td>
<td>3</td>
<td>36.3</td>
</tr>
<tr>
<td>126</td>
<td>5</td>
<td>25.2</td>
</tr>
<tr>
<td>146</td>
<td>7</td>
<td>20.9</td>
</tr>
<tr>
<td>170</td>
<td>7</td>
<td>24.3</td>
</tr>
<tr>
<td>na</td>
<td>2</td>
<td>na</td>
</tr>
<tr>
<td>na</td>
<td>5</td>
<td>na</td>
</tr>
<tr>
<td>na</td>
<td>4</td>
<td>na</td>
</tr>
</tbody>
</table>

The manner in which “Primary” and “Upper Primary” are divided and organised varies across the states. The most common pattern is a division of 5 years Primary followed by 3 years Upper Primary organised into separate institutions, but four distinct modes of division exist and conduct of the two divisions within one school is not uncommon.

In some schools reliable figures for student enrolment and/or the number of allocated teachers was not available.

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139 The manner in which “Primary” and “Upper Primary” are divided and organised varies across the states. The most common pattern is a division of 5 years Primary followed by 3 years Upper Primary organised into separate institutions, but four distinct modes of division exist and conduct of the two divisions within one school is not uncommon.

140 In some schools reliable figures for student enrolment and/or the number of allocated teachers was not available.
A. Teachers

Sixty-seven teachers were counted in the twenty two schools visited. Thirty four were interviewed - nineteen individually, six in pairs and the remainder in two larger groups (of three and six). All were permanent employees; one had started work as a para-teacher but later been upgraded to full ‘teacher’ status. Of the twenty-nine from whom educational details were obtained\textsuperscript{141} all but one had a bachelors degree or higher and most also had an education qualification - BEd\textsuperscript{142}. The group was evenly divided between men and women. Teaching experience ranged from six months to thirty six years with an average of 11 years. Three of those interviewed were Head Teachers (all female and the longest serving of the group), the rest were classroom teachers.\textsuperscript{143}

Summary of qualifications and teaching experience of Rajasthan teachers interviewed\textsuperscript{144}.

<table>
<thead>
<tr>
<th>Table 26 Teacher qualifications, Rajasthan</th>
<th>Table 27 Teachers’ experience, Rajasthan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BA, BEd</strong></td>
<td><strong>Years experience</strong></td>
</tr>
<tr>
<td>10</td>
<td><strong>Number</strong></td>
</tr>
<tr>
<td><strong>MA, MEd</strong></td>
<td><strong>less than 5</strong></td>
</tr>
<tr>
<td>9</td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>BSc BEd</strong></td>
<td><strong>5 - 9</strong></td>
</tr>
<tr>
<td>1</td>
<td><strong>5</strong></td>
</tr>
<tr>
<td><strong>BA, Bcom</strong></td>
<td><strong>10-14</strong></td>
</tr>
<tr>
<td>1</td>
<td><strong>4</strong></td>
</tr>
<tr>
<td><strong>BA</strong></td>
<td><strong>15-19</strong></td>
</tr>
<tr>
<td>1</td>
<td><strong>2</strong></td>
</tr>
<tr>
<td><strong>STC</strong></td>
<td><strong>20-24</strong></td>
</tr>
<tr>
<td>1</td>
<td><strong>2</strong></td>
</tr>
<tr>
<td><strong>BA or MA, BEd</strong></td>
<td><strong>25-29</strong></td>
</tr>
<tr>
<td>6</td>
<td><strong>1</strong></td>
</tr>
<tr>
<td></td>
<td><strong>30-34</strong></td>
</tr>
<tr>
<td></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td></td>
<td><strong>35 and over</strong></td>
</tr>
</tbody>
</table>

Observation and checking of records showed attendance was a significant issue and, as with what was noted about approaches to teaching, was more complex than initial impressions might suggest. Related to these was what emerged in interviews of teachers’ attitudes towards parents and students and to the wider local community in which they worked.

(i) Teacher Absenteeism

Data on teacher numbers, the official number allocated to the school and number present at the time of the visit, was collected for twenty one schools. For this group:

- the total number of allocated teachers was 67
- the number present during visits was 45 i.e. an overall attendance rate of 67 percent

\textsuperscript{141}The other five were also qualified, with BEd, but details weren’t recorded.

\textsuperscript{142}BEd - a one year course taken after completing a degree in some other discipline

\textsuperscript{143}To the researcher’s surprise one of the teachers during a group interview session was drunk. She had obtained access to the school through a neighbour who taught at the same school. After the interview she was warned by the neighbour that ‘this teacher is a strange man’ and if he offered to meet with her she should simply refuse and in no circumstance give him her mobile phone number.

\textsuperscript{144}Total is < 34 as information wasn’t obtained from every teacher
Enquiries were made about the reasons for teacher absences and these fall into some interesting patterns summarised below; but there are also some observations to be made about the pattern of absences across the group of twenty one schools:

there were no teachers absent in 11 schools

While one might expect schools with larger staffing establishments to have more teachers absent, there is no a priori reason to expect that the percentage of absent teachers should vary according to the number of staff allocated to a school. However, that percentage was notably greater in schools with larger teacher allocations as shown in figure 14.

Figure 14  Teacher absence vs. establishment size

It is striking that of the 12 schools with establishments of three or less teachers there were only two instances of teachers being absent. In one case the absent teacher was said to be unwell, in the other ‘on deputation’. On deputation means being temporarily\textsuperscript{145} assigned to school other than one’s base school to replace an ongoing absence at the destination site. Of the 22 absences noted when schools were visited 5 were attributed to teachers being on deputation.

Many of the absences were not accounted for:

Table 28  Reasons for teacher absence

<table>
<thead>
<tr>
<th>Reason</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>unwell</td>
<td>1</td>
</tr>
<tr>
<td>board duty</td>
<td>1</td>
</tr>
<tr>
<td>study leave</td>
<td>1</td>
</tr>
<tr>
<td>personal leave</td>
<td>2</td>
</tr>
<tr>
<td>exam duty</td>
<td>2</td>
</tr>
<tr>
<td>On deputation</td>
<td>5</td>
</tr>
<tr>
<td>unexplained</td>
<td>10</td>
</tr>
</tbody>
</table>

\textsuperscript{145} ‘Temporarily’ is an elastic term - it may mean many months; but whatever the period the teacher involved retains their ‘permanent’ assignment to their base school.
The large proportion of unexplained absences (and perhaps, too, the instances of ‘personal leave’) may be, at least in part, accounted for by the practice related by one teacher - that of taking days off in rotation. Pairs of teachers, or groups of teachers, would agree among themselves to each take turns to absent themselves from school for periods of several days. This is obviously not possible in single teacher schools and difficult in schools with two or three teachers, but easier in schools with a larger teaching establishment. If student learning is a low priority (examined later), large class sizes common and disruption via official practices (exam supervision, assistance in polio campaigns, electoral work etc) is a regular occurrence then the apparent cynicism of teachers informally planning “rotational days off is easier to understand if not to excuse.

When a teacher is absent there is often no replacement so classes are amalgamated (‘multi-grade teaching’) and teachers commented that this was detrimental to students’ education. Another comment was that student motivation was affected when teachers were absent and that this was a factor behind low student attendance.

Some remarks by individual teachers relating to teacher attendance:

**Aman:** “All together there are 7 teachers in this school but today only 4 of us are present.”

**Meenu:** “There are 2 teachers in the school one is absent because she is unwell.”  
(Chaksu)

and on some of the effects of teacher absence:

**Gita:** “Though on paper school is open for 180 days in a year but in reality actual teaching takes place just for 100 days in a year as teachers are involved in other duties apart from teaching.” (Sanganer)

Very similar comments were made by Sunita, Rina, Mitu in Chaksu.

**Sham:** “School gets all the funds under Sarva Shiksha Abhiyan on time but what is the point of getting these funds on time when teachers are not present in the school.” (Chaksu)

**Neelu & Minki:**

“When there are 8 classes from grade 1-8 and only 2-3 teachers are present of course students would go home before the school finishes.” (Fagi)

**Neelu & Minki:**

“Literacy would increase if teachers teach but how can teachers teach if they are not in the school especially because so many extra duties are imposed on them.” (Fagi)

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146 These quotations and all others in similar format are the words of the interviewees either transcribed directly into English in the researcher’s field notes, or, where agreement to record had been obtained, a translation made later by the researcher. In the translating endeavour has been made to capture the idiom of the speaker as well as the meaning of their words. All names are changed throughout to preserve anonymity, for the same reason locations given alongside quotations have been generalised to block level rather than the specific village recorded in the researcher’s field notes. A consequence of this is that comments with the same location (e.g. ‘Chaksu’) against them may be from different school communities.
In one school nominally staffed by five teachers just one was present and with a somewhat indifferent approach to teaching - whether the researcher’s presence influenced the latter, or merely provided a cover for it, was unclear:

**Sham**: “In total there are 5 teachers in the school including the Headmaster but today I am the only one present. I try coming to school regularly but I am preparing for Rajasthan administrative services examination so a lot of time goes in the preparation.” (Chaksu)

Sham informed the researcher that afternoon break for students finished at 2:00 pm but it was 2:15 pm and students were still roaming outside rather than in their classes; to this Sham explained:

“...I am being interviewed by you and there is no other teacher to take a class so they are still outside the classroom”.

Teacher absence was one of the factors that emerged from interviews with parents as among their reasons for dissatisfaction with state schools and, commonly, a desire to send their children to private schools when one was available and they could afford it:

“Though education is free in state schools but teachers don’t come regularly and if they come they don’t teach so how can children learn.” (Ghatol)

Students also commented on teacher absence:

**Puja**: “...teachers sometime come to teach and sometimes they don’t.” (Sanganer)

**Bimla**: “Teachers don’t come to the class to teach even though they are present in the school”. (Sanganer)

Teacher absence from school, though significant and detrimental to students’ education did not appear to be the fundamental issue in the low achievement of so many students. A casual approach to teaching (details follow) existed alongside an existential separation of teachers from students. Among many teachers there was ignorance and misunderstanding about students’ lives, aspirations and capabilities.

In these rural schools most teachers were originally from urban areas and many commuted a minimum of twenty and up to eighty kilometres each way to their workplace in a village school. Teachers living within the village community were the exception. Teachers expressed high educational aspirations for their own children, usually being educated in private urban schools, but frequently indicated that the children they were teaching were not too capable, didn’t aspire to higher education or had their education prospects irretrievably damaged by their social circumstances

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*Extra duties* are tasks of civil administration, not related to education, that teachers are required to undertake. They include acting as census enumerator, counting cattle, assisting with health programs (e.g. ‘pulse polio’ campaigns), distribution of food rations and other tasks. Teachers are used for such tasks because they form a large, geographically distributed, workforce of educated employees. The PROBE team interviewed a teacher who, in one year, had been involved in twenty-seven days of extra duties (De et al. 1999 p 61)
(parental illiteracy being often mentioned). One remarked that she wouldn’t want to move to the village as her daughter would develop a “village accent”. This indicates an attitude among teachers that village life is inferior, that villagers be treated with condescension, and of state schools inherently being of poor quality. These attitudes emerged in many of the conversations with the teachers.

(ii) Attitudes

a. Views on parents

Teachers in Rajasthan frequently blamed parents for the low level of student performance and poor school attendance. On asking if they had tried discussing this with the parents, the reply was often that their contact with the parents varied from ‘limited’ to ‘none at all’ and comments indicated that they felt parents put little value on education. A common theme was that education of children was left entirely to schools with little support, even hindrances, from parents, the local community and the education bureaucracy; and that in this milieu the task of teachers was constantly difficult and unrewarding - to the extent that one should understand if some gave up on the task.

Rani: “Biggest reason why Rajasthan has not been able to achieve 100 percent literacy is because of parents fault.” (Chaksu)

The same explanation was heard repeatedly e.g. from Sonia in Chaksu, in a group interview in the same place and from Neelu and Minki in Fagi.

Comments were made on the low education and literacy levels in Rajasthan:

Zainab: “poorer parents tell their kids what is the point of education.” (Chaksu)

It was observed in a number of classes in several schools that children were present who were obviously below school age - infants in the care of an older sibling. The researcher had heard of this occurring during harvests season when all adults were working and someone was needed to care for infants\(^{148}\). But she noticed that this problem of younger siblings accompanying their older siblings was persistent in most of the schools whether or not it was harvest season. She even witnessed younger siblings crying throughout a class which caused a problem to other students while they were trying to concentrate. To some teachers this reinforced the notion that parents didn’t value teachers for education:

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\(^{148}\) Pre-school care, along with a basic health service, is provided in many villages through a system of anganwadi centres (anganwadi: ‘courtyard’, Hindi). There were no functioning anganwadi centres in these villages.
However others, while still seeing this as problem for schools, recognised the social factors behind it:

Sunita:  “if we ask parents not to send their younger children who are not of school going age from accompanying their older siblings to school, parents stop the older siblings from going to school too.” (Chaksu)

There was resentment that parents expected too much of schools and from the belief that state support provided to parents was misused:

Sham:  “Parents expect school to provide the stationery too to the students but how can school provide because Sarva Shiksha Abhiyan does not provide that.” (Chaksu)

The same complaint was aired by teachers during a group interview in Sanganer.

Allegations were made that parents sold state provided educational materials.

Group interview:
“However SC/ST boys get 150 rupees a year and girls get 750 rupees a year. It is one off payment made once in a year- and is made on time. This money is hardly used for education, parents use this for their own personal needs and sometimes even sell textbooks of students to get money for drinking.” (Sanganer)

Again, however, there was some disagreement about the importance placed on this - Rima (a teacher on deputation in the same school as those quoted above) denied this notion of parents selling students books to get money saying:

Rima:  “Government rule is only 50 percent of new books would be provided - students have to reuse the books. So they collect the books from grade 3-5 students at end of the year and keep reusing the books till they are in good condition.” (Sanganer)

Thus a government practice based on economical use of resources (however simplistic the “50 percent new book” rule might be) becomes evidence of parental indifference and malpractice in the minds of those unaware of the policy.

In each interview the subjects of caste and the treatment of girls were specifically raised. These can be delicate topics. All are aware that caste based discrimination is illegal (and likely to be regarded with disfavour by an urban dwelling, educated, person such as the researcher) and, while all those interviewed (as, probably, every individual in India) were aware of caste factors impinging on everyday life, including education, some attitudes are so ingrained that those holding them are not consciously aware of them. Caste overlaps economic deprivation, for while there are wealthy members of Scheduled and Backward castes (“the creamy layer”) and impoverished members of upper castes, in general SC/ST and OBC\textsuperscript{149} are less well off. Thus this connects with the

\textsuperscript{149} OBC - ‘Other Backward Classes’: disadvantaged groups other than Scheduled Castes and Scheduled Tribes. A national listing is maintained by the National Commission for Backward Classes
widespread desire among parents to send their children to private schools when they can afford to do so. There was knowledge of the caste status of students and implicit recognition of the significance of caste but no overt caste based discrimination was observed in any of the classrooms visited. Some related teacher comments:

**Group Interview:**

“Most of the children belong to poor labour class- SC/ST. Higher caste and other general category parents send their children to the private schools. Parents prefer private schools because apart from teaching in government schools teachers have other duties too.” (Sanganer)

“State school children are no competition to private school children” (Chaksu)

One teacher from the group added:

“New trend of sending children to private school is further enhancing the gap between rich and poor, general category & SC/ST.” (Sanganer)

Another said that in the school where she first started teaching, caste distinction was very sharp:

**Rima:** “The major problem was created by Brahmins and the reason being there was no proper building for the school and the school was held in a Hindu temple premises and sometimes students were even beaten and driven out of the temple premises and it took a long time for the teacher to explain to the parents.” (Sanganer)

In connection with the education of girls teachers were aware of social attitudes in the local community that had an impact. The role of girls in carrying out household chores and child minding as well as the lack of necessity in educating girls who would be married early and not require an education for their role in adult life, were seen as significant factors. Child marriage still exists (see later) but does not automatically lead to the married girl child ceasing school. The lower priority given to girls’ education over that of boys leads to girls ceasing education at an earlier age than their brothers and to girls attending state schools rather than the more regarded private schools. Early cessation of education for girls was also seen to result from the absence of single sex ‘girls schools’ in the area as some parents didn’t want their teenage daughters in a mixed gender environment. School attendance was also seen by some teachers to be a consequence of parents viewing is as a means of access to immediate benefits, especially a free meal, rather than for any long term gains resulting from education.

For Sunita, Rina and Mitu the reason for ‘education backwardness’ in Rajasthan is:

“This is a Marwar area, preference is given to boys over girls but the situation has changed and improved a lot.”

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150 Marwar – arid region of south-west Rajasthan with distinct culture. The speakers comments allude to patriarchal cultural attitudes.
The researcher further asked ‘but literacy rates for boys are not excellent either’ to this the teachers said:

**Sunita, Rina, Mitu:**
“Boys are not as keen on learning as girls are but girls are kept behind to do the household chores rather than study”. (Chaksu)

**Madhu:**
“All children go to school in the village but parents prefer sending their boys to private school and girls to government school.” (Chaksu)

**Sonia:**
“Discrimination between boys and girls does exist but not at a younger age, parents send both girls and boys to school. As far as children get a meal parents are happy, they are not concerned what the child is doing in the school; whether they are learning at school or not?” (Chaksu)

She added:

**Sonia:**
“Parents don’t want their girls to study in co-educational institutes so they don’t let girls’ study after year 8. There is no mode of communication also- cycles are only given to girls who are in grade 10. Parents then want their older girls to look after the household work as they go and work in the fields.” (Chaksu)

Even though parents are now beginning the education of girls and according to the teachers the situation has improved a lot, it still appears that underlying gender discrimination in Rajasthan continues to contribute towards a low literacy rates for girls in the state.

### Views on students

That teachers’ notions of parental attitudes tended to be simplistic, dominated by stereotypes reinforced by individual coincident exemplars, may not be surprising. More surprising is that their understanding of students in their classes seems hardly less superficial. A dominant theme everywhere when discussing students was to do with absenteeism. The social reasons connected with absenteeism were well understood; possible pedagogical ones - school curriculum and teaching methods - were never mentioned. Student absenteeism was correctly viewed as an impediment to education, but rather than being approached as something that might be tackled in order to better focus on education as the prime purpose of schooling, it was taken as a given and became a main excuse for the low performance of Rajasthan schools.

<table>
<thead>
<tr>
<th>total student enrolment</th>
<th>students present</th>
</tr>
</thead>
<tbody>
<tr>
<td>57</td>
<td>12%</td>
</tr>
<tr>
<td>170</td>
<td>19%</td>
</tr>
<tr>
<td>39</td>
<td>26%</td>
</tr>
<tr>
<td>73</td>
<td>27%</td>
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<td>20</td>
<td>30%</td>
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<td>85</td>
<td>35%</td>
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<td>35</td>
<td>43%</td>
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<td>73</td>
<td>44%</td>
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<td>25</td>
<td>44%</td>
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<td>126</td>
<td>45%</td>
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<td>28</td>
<td>50%</td>
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<td>103</td>
<td>53%</td>
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<tr>
<td>37</td>
<td>57%</td>
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<td>146</td>
<td>70%</td>
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<tr>
<td>40</td>
<td>73%</td>
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<tr>
<td>105</td>
<td>79%</td>
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<tr>
<td>55</td>
<td>80%</td>
</tr>
<tr>
<td>109</td>
<td>50%</td>
</tr>
</tbody>
</table>
In the eighteen schools from which it was possible to obtain total enrolment figures and student attendance on the day of the visit student absentee rates ranged from 20 percent to 88 percent. The total nominal enrolment for these schools was 1326 from which 568 students were present when the schools were visited - an average attendance rate of 43 percent.

There was no correlation between student and teacher absence rates on the day of visit. The nine schools with 100 percent teacher attendance had student attendance rates between 26 percent and 80 percent. The school with only 25 percent of teachers present had most of its students in attendance (79 percent).

Nor was there any connection between school size and student attendance:

Neelu & Minki:
“Out of 57 students only 7 are present today.” (Fagi)

Rani:
“Total students in the school are 25 but today 11 are present.” (Chaksu)

Though teachers all expressed views which indicated that they saw student absenteeism as something beyond their influence, a number also seemed to feel that high absenteeism reflected badly on the school - as indicated by the common practice of inflating the numbers of students present:

Rima:
“Total number of students in the school is 103, 75-80 students come everyday.” (Sanganer)

However when the researcher counted, only 55 students were present.

Teachers viewed student absenteeism as having three main causes - (i) irregular attendance due to students participating in work (household, farm, shop) or taking part in festivals (ii) cyclic migration by parents (iii) inflated enrolment - that of students
whose families have no intention of sending them to school but enroll them in order to qualify for benefits:

Rima added:
“Students who work as part time domestic help or in the shops are generally the ones who miss school. They will come for few days but again would miss for a week; they are quite irregular. But we try getting children back who are bright in studies so that they don’t drop out.” (Sanganer)

Raji added:
“ST/SC students in grade 6-8 get scholarship every month - rupees 150 to boys and rupees 750 girls per annum. When some parents got to know of this they sent their girls to get the money who have not been coming regularly. On getting the money they stopped coming to the school again. In the months of July and August most of the teachers from the school go to the parents house asking them to send their girls regularly. But still they don’t. Hardest is to get the Harijan151 students to school.” (Fagi)

Neelu: “Students whose parents work in the brick kiln generally leave by the beginning of the monsoon152; sometime they return in September and sometime they do not. If they do not return their name is cut from the student register. It is inconvenient admitting children in September as that is not the beginning of the year but we do not want children’s studies to suffer so we admit the children in the school. Sometime it happens that new children who come to school (parents working in the brick kiln) can’t read or write because they are frequently in and out of the school.” (Fagi)

c. Views on “tuition culture”

Across much of India there is a practice of parents paying for extra teaching of their children at privately run coaching classes after school hours - the “tuition culture”. This is often fed by the belief that the school a child attends does a poor job of educating. In some places this belief is so widespread that it becomes a community expectation that education doesn’t happen in schools, leading in turn to a common notion that parents who care about education will, at least, send their child for tuition (or to a private school if one is available and parents can afford it). The cost of private tuition can be significant for poor families and the fact that it is purchased (whatever is quality) indicates that education is valued. Asked about students in their classes taking out of school tuition most teachers dismissed the idea:

Neelu & Minki: “these students come to school is more than enough- forget about tuitions. They come to school as if they are doing a favour to us.” (Fagi)

Rima & Mahesh: “Tuition; how can poor children go for tuition, if they could afford tuition they would go to a private school.” (Sanganer)

Later when the researcher told these teachers that she had talked with their students and 15 out of 50 told her they went for tuition they found this difficult to accept. One of these teachers called over a student and he told her that he did go for tuition and that his

151 Harijan - term, literally “children of God”, given wide usage by M K Gandhi as an alternative to “untouchables” for the groups now known officially as scheduled castes and by self-reference as Dalits. Harijan is a term rejected by Dalit groups and Union government directives oppose its use.

152 Monsoon in Rajasthan is from July to September.
parents paid 500 rupees for him and his brother to attend. The teacher’s response to the student was “still there is no improvement in your academic performance”.

d. Views on Girls’ Education

Among all the Indian states the gender gap in literacy rates is highest in Rajasthan and the actual female literacy rate is among the lowest in India. When teachers were asked whether there were any particular issues relating to girls education the overwhelming response was to talk of the problems related to child marriage. Early marriage does not automatically mean that a girl’s education ceases - the attitudes of her parents and, crucially, her parents-in-law may allow her to continue at school:

Raji: “Girl students are married at a young age and it does affect their studies. It is not uncommon if parents have several daughters (2, 3, 4) to have them married together even though they are not sent to their in-laws house until the age of 14 or 15. Sometimes girls from grade 7/8 don’t come to school for couple of days. On asking where they were the answer ‘at their in-laws’ is not uncommon. Sometimes if in-laws say ‘do not educate the girls’ then the girls parents don’t, no matter how much the school tries to convince the parents.” (Fagi)

Similar remarks were expressed by Neelu, also in Fagi. Indian law prohibits marriage of girls under the age of 18 years but commenting on child marriage Mira said:

Mira: “We try explaining to the parents about child marriage but still child marriage takes place in spite of getting parents signature on the document on admittance to the school that they won’t get their daughter married before the age of 18.” (Ghatol)

In Chaksu the researcher asked Meenu if any of the girls in her school were married. She laughed at the ignorance implied by the question:

“Of course there are many.”

She then said:

“most of the girls in the village can write their name so none is illiterate”

An interesting comment reflecting the fact that some people still consider just the ability to write one’s name as a mark of being literate.

As with the boy who was told his performance hadn’t improved despite tuition the researcher was struck by the harsh manner in which the subject of marriage was raised with girls.

Talking to Neelu about married girls in the school this teacher called out to one young girl (6 or 7 years old):

“Tanu, you are married right? Tell us about your experience.”

and then remarked loudly that the girl was a Muslim.

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153 2011 Census figures: Rajasthan had a literacy gender gap of 28% and a female literacy rate 53%, together with Bihar, the lowest in India. Ten years earlier the rates were 33% in Bihar and 44% in Rajasthan,
Harassment, or fear of it, was implied in remarks of Shradha about girl students choosing to walk to school in groups:

**Shradha:** “Some students\(^{154}\) even walk up to 2 kilometers one way to reach the school. One of the biggest drawbacks of this is that if 5 girls come together in a group and if 2 girls plan not to go to the school due to some work others will not come to school either.” (Chaksu)

**e. Views on Literacy**

Literacy was generally defined by teachers as “ability to read and write”, some teachers further adding to this definition said, it also means “having social manners”, “being on your feet”, “girls being socially aware so that no one can fool or cheat them” etc. One overwhelming complaint of teachers was the imposition of extra duties on them such as the collection of national census data, which includes measuring literacy. Teachers were asked how they decided a person is literate or not. Many answers were similar to this:

**Surinder:** “We asked everyone to write their own name and name of someone else. People were very honest in saying they were illiterate. And if someone said they are literate and we collecting the data had a little bit of doubt only then we asked them to write our name apart from their own name.” (Sanganer)

On asking if literacy figures should be treated with caution, the Head Mistress of a school who had eight schools under her jurisdiction and had large number of teachers from these schools collecting data for national census said-

**Raji:** “National census results should be considered at least 10 percent less than what is given.” (Fagi)

**f. Views on governance & bureaucracy**

Frustration with the state bureaucracy was widespread. Being given non-teaching duties was a common annoyance, the difficulty of securing a transfer was a source of resentment - fuelled by the belief that transfers were not done fairly\(^{155}\).

**Rima:** “Transfers happen quickly, one can even be transferred after 6 months and if you know someone and are unhappy at a place within few days you could go to some other place.” (Sanganer)

Delayed payment of salary was a common complaint: of the 34 teachers surveyed two said their salary was mostly received on time, two said theirs was mostly delayed while the rest had mixed experience - sometimes delayed up to six months, sometimes on-time.

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\(^{154}\) Grades 6, 7, 8

\(^{155}\) One teacher complained to the researcher that she had paid a ₹20,000 bribe to the appropriate official 18 months earlier to secure transfer to an urban school but had still not been moved.
Sunita: “We don’t get salaries on time in rural areas. It is delayed sometimes by 6 months; teachers keep working in the hope of getting their salary one day.” (Sanganer)

Opinion on the value of the state provided training was less mixed: just three teachers felt the training was generally useful; of the rest a few had mixed views but most found it ‘not helpful’. On asking how teachers get away with not attending training, teachers said:

Sham: “Teachers job is such that even if you don’t do anything it is fine. Though it is compulsory to attend the training but if you don’t go nothing happens. People just give medical certificate and nothing happens.” (Chaksu)

Mitu: “Many teachers miss the training because they know someone higher up and even without attending they are marked as present during the training. No one checks strictly if the teachers are present or not. For example 11th and 12th of March was a teacher seminar day for all teachers all over Rajasthan, but the government declared it as a holiday, so if teachers want to go they can. If they don’t want to, it is not compulsory.” (Sanganer)

Another source of frustration with the state educational administration concerned the grants schools are entitled to receive under Sarva Shiksha Abhiyan each state school is entitled to three annual Grants; Building maintenance (₹5,000 primary schools, ₹10,000 upper primary schools), School Facility Grant (₹5,000 primary schools and ₹10,000 upper primary schools) and Teacher Learning Material Grant (₹500 per teacher irrespective of primary or upper primary schools). Frustration existed due to the late payment of these grants and was seen as too rigid conditions connected with their use.

During school visits the researcher found that all the schools visited received the TLM grant, and that the School facility and building maintenance grants were received by all but two schools, the exceptions being one school that did not have a building of its own and a second school constructed less than 10 years ago and thus did not qualify to receive the two grants.

Some teachers expressed their discontentment regarding the grants:

Lakhan: “5000 rupees is too less for building maintenance. Getting one of the classrooms plastered cost 5000 rupees which I somehow managed to get done at a very low price as market rate for the same is 20,000 rupees. Schools should be allowed to inter-use the funds between SFG and building maintenance.” (Ghatol)

On occasion grants arrived so late that only two months remained in which to spend them -

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156 The training sessions are usually conducted at a central location so teachers are away from school. The researcher was told by one teacher that many staff, though away from school, didn't attend the training sessions and that no check was conducted. Whether this was from a simple desire for a 'day off or reflected experience/belief in 'useless' training was not clear.

157 On use of TLM grants see later.

158 Lessons run by this school were conducted in a local resident's house. Details later.
Raji: “Sometime the grants come in January instead of the beginning of the previous academic year in March/April - and they have to be spent by March, and it is examination time and this year teachers were involved in national census too, so it gets hard to spend the money so quickly.” *(Fagi)*

Teachers also said:

**Sunita, Rina, Mitu:**

“School facility grants that are to be used to get material required for the school like tables, chairs etc should be given in alternate years and the money thus saved should be used instead for giving uniforms to students.” *(Chaksu)*

As in other areas of administration the reforms initiated in 1992 were introduced with the aim of bypassing a cumbersome bureaucracy and putting some resources and decision making power in the hands of those immediately affected. As well as the Panchayat (village council) schools are directed by a Village Education Committee (VEC) or a School Management Committee (SMC). Rajasthan teachers were almost unanimous in their complaints about the ineffectiveness (at best) of local administrative bodies:

Rani had similar views:

**Rani:** “Parents come on 26th January [Republic Day holiday] and 15th August [Independence Day holiday] but not otherwise. They are aware but still don’t come because they have no time. They have to make a living. Even when they come they don’t want to stay and so request the teachers to take their signatures quickly so that they can leave. For example when funds come they have to take money from bank; one teacher and one village person, whose child is in the school and is SMC member, but today that parent was busy so could not come. Generally it is hard to bring parents to come and talk to the teachers.” *(Chaksu)*

Neelu and Minki related similar experiences from Fagi.

**Raji:** “Panchayat has the responsibility only on paper but in reality they don’t help much. Even if it is the responsibility of the Panchayat to conduct a survey, they request the school to do it on their behalf.” *(Fagi)*

Two central government initiatives attracted particular comment: the Mid Day Meal Program and the Right To Education act.

**Mid Day Meal Program (MDM)**

Under the Mid Day Meal Program students in state schools are provided with lunch at school. The schools visited in Rajasthan had different provisions to run this program.

The meal was supplied by one of the following arrangements:

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159 The academic year begins in March, grants must be spent within the year they are received, so if a school doesn’t receive a grant until January there are just two months in which to make use of it.

160 the 73rd Amendment Act of 1992 established the framework for the local government system

161 January 26, Independence Day and August 15, Republic Day, are national holidays in India. A village celebration, with refreshments, is commonly held on school premises.
Table 30 Methods of supplying mid-day meal

<table>
<thead>
<tr>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>cooked on campus by teachers</td>
</tr>
<tr>
<td>cooked on campus by a person hired by the school</td>
</tr>
<tr>
<td>cooked by a household close to the school</td>
</tr>
<tr>
<td>meal provided by Akshaya Patra (NGO)</td>
</tr>
<tr>
<td>meal provided by Annapurna Mahila Samiti (Rajasthan women’s group set up to provide MDM, registered as a Co-operative)</td>
</tr>
</tbody>
</table>

No one method of supplying the mid-day meal stood out as being clearly less problem prone than the others. Complaints about the MDM program were frequent, the most common are summarised in the following table and, in general, were made irrespective of the means of supply.

Table 31 Main complaints about mid-day meal

<table>
<thead>
<tr>
<th>Complaint</th>
</tr>
</thead>
<tbody>
<tr>
<td>there were complains about students or teachers having to clean the dishes themselves resulting in wastage of time</td>
</tr>
<tr>
<td>in some schools teachers lost hours of teaching time everyday due to record keeping for MDM apart from any cooking time involved</td>
</tr>
<tr>
<td>hiring a village person to help with MDM could cause disharmony as it brought in village politics and questions over selecting any particular person</td>
</tr>
<tr>
<td>students discarding MDM because of poor quality</td>
</tr>
<tr>
<td>theft of food grains from school compound</td>
</tr>
<tr>
<td>shortage of grain or other supplies</td>
</tr>
</tbody>
</table>

The MDM program was started by the government with an aim to increase student enrolment and retention in school by providing a nutritious meal. In many schools in Rajasthan the program’s basic purpose was being defeated:

- **Mridhul**: “Some children do leave after eating MDM; even after trying to stop them 10-12 students do go away.” (Ghatol)
- **Rana**: “Students are given the meal to take home as there are utensils, but no water to clean the utensils. Students eat the meal at school but go home to clean the utensils. But some students return after going home and some do not.” (Toda Bhim)

**Right to Education Act (RTE)**

162 A government report claims that 50% of Rajasthan students were involved in washing/cleaning for MDM and that this occupied an average of over 9 hrs per week for each student (Planning Commission 2010b p51)

163 the researcher ate MDM on every field visit in Rajasthan - the same food provided to students - and found no problem with it. No doubt quality varies, there are a number of documented accounts of food poisoning due to unhygienic preparation (Bharadwaj 2014) [and one case of poisoning due to contamination with insecticide (Gaikwad 2013)]. Unacceptable as they are these incidents are rare given the scale of the program, but do attract media attention. However the common objections to MDM from parents was couched primarily in ‘local’ terms - the food was not tasty, or not like what children were used to at home. Intriguingly the Planning Commission found, in most states, significantly lower rates of satisfaction among parents than among students when rating the quality of MDM food (Planning Commission 2010b p44)
Teachers expressed their discontentment over two provisions of the RTE act: (a) admitting students entering school into the year level according to their age and not their ability (b) promoting all children to the next year level irrespective of their performance in the examination.

Raji: “Under new RTE act we can’t make students repeat the grade (fail till grade 8). Children are very aware of this rule. Sometime when we scold the students and say if you don’t study we will send you back home, students reply by saying then you would be running after us to get us back to school (awareness level in children is very high).” (Fagi)

Though RTE act was seen as being disadvantageous to student attendance and performance, a major concern of teachers was the impact it would have on their teaching responsibilities, it was seen as an extra job to perform.

Shivam: “We have not informed the students about the RTE act because it might have a negative impact on attendance. RTE is not a good rule because if students know that they can’t be failed they will see no need to study. Moreover if a child has not been to school before and is more than 6 years old and is admitted in school according to the age i.e. if he is 8 years old he would be in grade 3 then it means we have to work extra on that child.” (Toda Bhim)

Views similar to Shivam’s were expressed by Maheep and Mira in Ghatol.

Teachers also expressed dissatisfaction over uniforms and bags that are being given every year to SC and ST students during the course of elementary education. Several discrepancies related to this provision were reported. Some schools are provided with the bags and uniforms before students reach grade 6 while some after that. All government schools should be receiving bags and uniforms but some have never received any, some schools have occasionally received these items, some schools receive these items but always in lesser number than actual numbers in schools. Apart from the standard provision of bags and uniforms schools are pro occasionally provided with some stationery items. Commenting on this a headmistress said:

Raji: ”Just 14 geometry sets were sent for girls in grade 7 and 8 for SC/ST and minority group girls but they were not sufficient. On asking the authorities how to distribute the geometry sets because they are not enough I was asked to give them away only to the bright students. But it is very hard to face the parents in such situations.” (Fagi)

If something is not working properly and is a source of continuous dissatisfaction to parents, teachers and headmasters/headmistresses it is normal to expect them to take these issues up with the local authorities during school visits by officials, or by writing to them or by directly going and meeting them. The researcher asked teachers and parents have they tried discussing their problems with the local government authority. They replied:

Sham: “Block officer, district officer, Sub Divisional Magistrate no one has time to come.” (Chaksu)

Raji: “Once a high ranking official came to the school and asked me the problems we have. The official noted in the diary the condition and need for new computers
but nothing has happened so far.” (Fagi p 3) [name and rank of the official provided but not mentioned here for privacy reasons]

**Rima:** “My school does not even have a building and when I repeatedly complained about this to the office of Education minister, I was asked to get a transfer and the school would be closed. There was allotment of two plots for building a primary school but one was sold by the government to a private school and when in public I questioned a SSA government official on allotment of the land for the school, he said, this is not in my reach. I once again she met this official at another public function and he was slightly embarrassed so now the school has a seating arrangement under bamboo roof for students but still no building.” (Sanganer) [name and rank of the official provided but not mentioned here for privacy reasons]

Many teachers expressed similar views as this:

**Sham:** “When I joined this service I was very enthusiastic and wanted to make a difference but slowly things changed - I realised that alone one can’t do anything.” (Chaksu)

One parent said to the researcher:

**Alok:** “You should tell the big officials regarding the condition of this school. We have written to some officials but no one has paid any heed.” (Chaksu)

The researcher is herself aware of the difficulties one has to go through to meet government officials in Rajasthan. On completion of her fieldwork, she wrote emails to the government officials (whom she had previously met before starting fieldwork), no one replied and many emails bounced back due to a wrong email address having been provided. She tried ringing their office numbers but did not get a straight answer from the staff of the officials. She finally decided to go directly to their office and kept on doing this for three days and waited for several hours but could not meet the concerned personnel.

**(iii) Teaching Methods**

There is not a great deal to report about teaching methods *per se* as little teaching was observed in any of the visits to twenty two schools. While visits to schools were pre-arranged, with consent obtained, visits into individual classrooms (selected while at a school) were of the researcher’s timing and choice. The aim was to see what happened in a typical class - not a pre-prepared ‘model’ lesson. Almost nothing that could be described as teaching or engaging students in learning was observed. There was not one instance of a teacher engaged in discussion or question/answer with students in a class, nor of any teacher engaged in exposition of material, nor any class where students were engaged in any form of active learning (e.g. using concrete materials or equipment) or in any type of group work. In two classes the teachers led students through ‘rote learning’ by recitation; five other classrooms, scheduled for a class and with students waiting, had no teacher present.
One of the objectives of SSA is to reform pedagogy with an explicit aim of involving teachers in designing curriculum materials that encourage modes of education that require the active engagement of students. As well as the usual methods for achieving a centrally determined aim such as publication of articles, conduct of ‘train the trainer’ sessions, encouragement of state departments to promote the initiative etc., SSA has done something more radical. A small annual grant is provided to each teacher so that they can purchase prepared materials, or materials they need to develop a course. This is the Teacher Learning Material (TLM) grant referred to earlier. When interviewing teachers they were asked about the TLM grant and a request was made to see the materials that had been purchased. There was evasion and tales that the materials were ‘at home’ or locked in a room for which an absent teacher had the key. This is very strange as the intention (and result in other states) is that TLM grants will result in the gradual build-up of learning materials in every classroom. Many teachers were aware of the purpose of TLM grants, but cynical about how they were used, though some gave examples of purchasing useful materials and incorporating them in their teaching:

**Uma:** “Teacher learning material (TLM) scheme under Sarva Shiksha Abhiyan provides ₹500 per teacher every year. Seventy five percent of the money is to be used towards permanent articles such as dictionaries, geometry sets and twenty five percent towards consumable articles such as charts, material for making models.” (Chaksu)

**Cashier Ram** interrupted:

“All this done just for show for example teachers responsible for buying these materials bought Sanskrit and Urdu dictionaries when these languages are not spoken or taught in the school.”

**Raghav:** “Truth cannot be hidden but cannot be revealed at the same time.”

**Ram:** “Bottom line is government is sending a lot of money but it is not utilised in the right way.”

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164 22 teachers were observed in classrooms. There were 67 teachers in total in the schools visited in Rajasthan; just some of 22 observed were among the 34 interviewed.
Rani: “With the money available under TLM I bought different kinds of shapes for teaching Mathematics to students and it was so easy for students to grasp the concept. I did not have to make an extra effort during the lesson to teach.” (Chaksu)

Apart from Rani some other teachers also mentioned buying materials related to their subject matter but none of these materials were being used during the course of the lessons that were observed. Classrooms were generally bare. A few classrooms used charts as learning materials but most of these were very old.

The bare rooms reflected and perpetuated the almost total lack of active teaching noted above. In two schools Pratham volunteers took charge of a class while the classroom teacher rested or talked with colleagues and these volunteers usually interacted with students and engaged them in learning. Elsewhere, teachers were sitting while students copied work from the classroom board or teachers were just talking with one another - a common practice. Out of 22 schools visited across 5 blocks in 3 districts of Rajasthan, actually teaching was observed just in two schools.

In contrast to the bareness of individual classrooms the school buildings themselves generally had large paintings on the outside walls with messages related to students’ health such as the importance of keeping teeth clean and taking a bath everyday; however stray cows and dogs were often roaming through a school.

Teaching can always be more appropriate and engaging to students if what is planned is linked to students’ social situation and to the local environment. Effective teaching is contextual. There is a limitation in practicing this in Rajasthan as the books used in schools are designed by the Department of Education leaving little scope for teacher adaptation to local circumstances. However, if teachers want to, they can use local materials and adapt teaching to local circumstances, unless there is a draconian inspection system maintaining adherence to a prescribed regime, which was certainly not the case in Rajasthan. Such teaching, situated in the local context, was observed frequently in Karnataka, where the education system encourages it. Even without active system support there is no systemic barrier to teachers developing courses/materials to better engage their particular students; it is, in fact, an objective of SSA that this should happen.
B. Students

(i) Achievement as observed in classroom visits

It was not the intention of this researcher to conduct formal testing of student’s literacy or numeracy but simply to form some impression of students’ capabilities by interacting with the class (questions, playing games such as ‘hangman’), talking to individual students and looking at their workbooks.

Amongst 22 schools visited it was only in 3 schools that the students present that day read to the researcher fluently. Once the pleasantries were exchanged students were asked to raise their hands if they would like to read to the researcher from any of their books but, with an exception of 4 schools (all in Jaipur district), none did. Of these four, in three schools all students read, in the other only about half did so. In the large majority of schools where no hands were raised the researcher then talked to the teacher before moving around the room. She spoke to individual students and sought to discover whether they could read or recognise letters of either English or Hindi alphabets. Very few could.

In 80 percent of the schools visited students did not read to the researcher. She even tried sitting next to students, opening their books and talking about what was written but students would not talk. One main difficulty in Rajasthan schools was the classroom teacher prompting students or selecting particular students as well as commenting on possibility of students being shy to respond to a stranger. The researcher endeavoured to minimise this adult assistance by reminding the teacher that she was interested in the student’s own response (and that she wasn’t from ‘the government’ checking teacher performance), so she should be allowed to select students herself.

In some schools teachers provided strange reasons for students not being able to read: on asking the students if they knew the English alphabet in one school, there was a

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165 Students were asked to read any from any book they chose, in either Hindi or English. The same procedure was followed in all classes in both Rajasthan and Himachal Pradesh.

166 “Shyness”, as judged by reluctance of students to respond to questions may have a cultural component, but it likely also reflects self confidence. Self confidence may be an explicit objective of the education system as well as being an outcome for students who feel that they have actually learnt and mastered material. There are individuals who are extremely competent but stay quiet and others who know very little but seek to jump into one’s attention (whether their responses have any validity or not). However, the researcher has noticed with classes there is a general eagerness to respond when competencies are high and reluctance to do so when learning is weak. This is not unexpected, but nevertheless striking when encountered across a range of schools in China (Beijing, Gansu) and India (Rajasthan, Himachal, Karnataka) as well as in schools in Victoria, Australia. The other side of this is the readiness of teachers to ascribe their students’ failure to respond to questions directed to a class to their “being shy” and then frequently finding that individuals in the class lack the relevant competence when subsequently working with them individually.
general response of ‘yes’ after the Pratham volunteer encouraged students to speak. The researcher wrote the word “CAT” on the blackboard and a couple of students started reading it as “C”... “A”... “T” (reading the individual letters and not the word). To which the teacher said: “they know smaller alphabet but not the capital one” (Rani, Chaksu). This seemed strange to the researcher for several reasons: (a) students are almost universally taught upper case letters before lower case ones, though one can’t be certain that this was the case with this particular class., and (b) the students did recognise the upper case letters, but didn’t connect them to form a word.

It seems the students could recognise letters (at least upper case!) but not read words in English and that the teacher’s comment about knowing the “smaller alphabet” was a means of excusing their reading ability.

While talking to a group of 32 students from grades 1 to 8, with a Pratham volunteer present but not the school teacher, initially no one was answering any question. No one volunteered to read. As they relaxed they all said they liked coming to school and, on being asked why, they said because they learn. On asking if studies happen in school they said yes. On asking if teachers come everyday, no one replied.

The students were told that if they don’t want to read it is okay but would they be able to tell the researcher the name of famous personalities on posters that hung in their classroom, they said yes. All the posters had the name of the personality written on them. On pointing to the poster of Swami Vivekananda\textsuperscript{167} students said, he was Ramdev\textsuperscript{168}; nor did students recognise other personalities or were able to read their names on the posters.

(ii) Accounts from individual girl students

While many discussions were held with students in the classrooms it was desired to talk to girls individually as one of the aims of the research was to discover what those directly involved in education, including students, had to report about their experiences of schooling. These interviews with the girls were arranged through Pratham. The Pratham worker reported that many parents were reluctant to give permission for their daughter(s) to be interviewed. Consent was obtained for seven. Five of the seven girls were still attending school and one had dropped out. Four of these interviews were conducted in student’s homes in a poor locality of Sanganer without the presence of parents or elder siblings and for three others the interviews were conducted in their

\textsuperscript{167} Renown 19th century Hindu monk and philosopher, founder of Ramakrishna Mission, and known in the West for introducing Hindu thought (e.g. at 1893 Parliament of World Religions in Chicago). Generally held in high regard in India, his birthday is celebrated as National Youth Day.

\textsuperscript{168} A Hindu folk-deity in Rajasthan.
school at Toda Bhim. It was difficult to interview girls at school because of the presence of the teachers - girls were not able to speak openly and in spite of requesting teachers to allow privacy so that a student could be interviewed alone, this did not happen. In one of these a pair of girls were present as they expressed that preference, but the researcher spoke with each girl separately.

The four accounts presented below are reflective of all seven interviews.

a. **Puja**

Puja was visited at noon; both her parents were at work. She was well presented with clean, neatly combed, hair and was wearing newish clothes - an Indian suit, which she said was given to her mother by a family for whom she works.

Her family had migrated from West Bengal. She studies in grade 5 in a state school. She has two elder siblings - the oldest is a girl studying in year 9 and other a boy in year 6. Her father is a construction worker and her mother a maid, working in a number of different houses each day. Both parents together earn roughly 10,000 rupees a month, of which ₹2,000 goes as house rent and in addition they pay for utilities such as water and electricity.

**Life at home**

Puja wakes up every morning at 6 am. She leaves home at 7.00 am with half hour travel to reach school by the starting time of 7.30 am. Although the official finishing time is 12.30 pm Puja’s school lets out at 11.30 am and she reaches home at 12 noon.

Her home is a single room that also doubles as a kitchen. The room is tiny with a single table on which there was the portable gas stove. Around the room were a small black & white TV, one long single bed and trunks stacked on top of one another. Pages of old newspapers are pasted over one wall of the room. With four people present it was difficult to move around. The room had a ceiling fan, but no cooler. The bathroom, toilet and veranda are shared with other two families who also stay in the cramped untidy compound, each family with one room for sleeping, cooking and living.

**Life at School**

She said teachers sometime come to teach and sometimes they do not. Her Jaipur school has electricity, clean drinking water facilities and separate toilets for boys and girls. She made a point of saying that her school does not have any play equipment. She has been in this school since year 1.

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169 Puja, her sibling, NGO staff, researcher
She said there are 50 students in her class of whom 30 are girls and that some of these girls are already married. Without prompting on the issues she mentioned a friend of hers who was a year senior to her and was married while studying in grade 5. Straight after getting married she went to her in-laws’ house at age of 12 and continues to live with them and since doing so has dropped out of school.

Aspirations
She said she wants to be a medical doctor and her parents are aware of her aim and they are keen on getting her educated.

She said once home she does house work such as cleaning and cooking but said she manages to find five hours everyday for studies. Puja goes to private tuition everyday from 3.00 pm to 5.30 pm and there studies mathematics, Hindi, English and Environment Studies. For the tuition of their three children her parents pay every month an amount of roughly ₹1500, though she does not know the exact amount, she knows it is a burden for her parents.

b. Charu
(General Category\textsuperscript{170}) Migrant Bengali family

Charu was wearing an Indian suit, old but not torn and her hair was disheveled. It was early afternoon and she had just come back from work. Her nose was bleeding heavily, something which she said happened quite frequently, and she wanted to clean up and get ready to go to her next job. She is 12 years old. She has four elder sisters and one younger brother who is in grade 4. Three of her sisters are married and one elder sister works as a maid in a single house\textsuperscript{171} - her duty is for 15 hours a day. Her mother is a maid too and her father owns a small utility pedal rickshaw. Mother and father together make ₹10,000 a month and the money earned by the sister would be used for her dowry. She said her parents had to spend a lot of money on her other three sisters’ weddings and they still have to give them a lot because they have greedy in-laws. Her elder three sisters are all illiterate and each was married before turning 18.

Life at School
She had just written exams for grade 5 and will not be able to continue her studies hereafter; and is already working.

\textsuperscript{170} General Category - in India’s system of reservation the ‘general category’ includes all those who do not belong in any specific group for whom reservation has been scheduled. In common parlance it is, approximately, the ‘upper castes’ (the term ‘forward castes’ is also used). In the words used, general category, without mention of ‘caste’ (unlike ‘scheduled caste”, “other backward caste”), general category assumes a status as casteless - see Deshpande (2013 p32) for discussion of ‘general category’.

\textsuperscript{171} It is quite common for women and girls doing domestic work (‘maids’) to work in a number of houses during one day and/or different houses on different days - being paid for the hours worked at each location.
She said that when she used to go to school she would devote 1 hour for studies everyday at home. She even took tuition when she was in year 3 but later her parents said they can’t afford it and so had to leave the tuition. She said she can read a newspaper well.

Charu related that in her class there were no married girls and that her teachers taught well. They had a clean drinking water facility and separate toilets for boys and girls.

**Life at Home**

Now she wakes up at 5 am and prepares a meal for her father and brother. She takes a bath and leaves home at 7.00 am to work as a maid and gets back home at 12 noon. She then prepares lunch for everyone except her older sister and then cleans the house and washes the utensils and clothes. At 3.30 pm she leaves home again and goes out to work getting back home at 7.00 pm and then gets busy with preparing dinner. When she gets time she watches television and sleeps at midnight.

Her family had one room in a large compound with several other families, each family having a separate room and a common toilet and bathroom. The five family members sleep in one room which is also their kitchen. The rent paid by the family for this accommodation is ₹2000 per month. In addition they pay for utilities such as water and electricity.

**Aspirations**

She wanted to study further and requested her parents not to discontinue her studies but they did not agree. She said studies are very important because it teaches you so many things, like “living in this world”, “it makes you smart”. She told the researcher that her father drinks heavily.

c. **Pammi**  
(OBC, Gujjar^{172})

Pammi is a physically disabled child studying in grade 6. She was clean and tidy, hair neatly combed in a braid, with simple, clean clothes. She is unable to walk. Though there is an entitlement under government policy of a scholarship for all disabled students, Pammi does not receive this assistance. Her teachers say the reason is that she does not have doctor’s certificate stating that she is 40 percent disabled. However she

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^{172} *OBC* - ‘other backward castes’, socially and educationally disadvantaged groups who are not members of scheduled castes (‘Dalits’) or scheduled tribes (‘Adivasis’). Lists of OBCs, which vary by region and are subject to modification, are maintained centrally (National Commission for Backward Classes 2013)  
Gujjar (alt. Gurjar, and various other spellings) - an ethnic group, on the central OBC list for Rajasthan since 1994, but the community has been agitating for recognition as a Scheduled Tribe (Parihar 2007).
informed that she got money once and wonders why she has not received it again. The teacher also said that there were five disabled OBC girls for whom they had sent scholarship forms to “the government” but the forms were returned for reasons unknown to the teacher.\footnote{The researcher brought this situation to the attention of the NGO staff who said they would follow it up. Non receipt of an entitlement could be due to incomplete paperwork, hold-up in release of government funds, breakdown in chain of bureaucratic processing etc; but it could also be due to corrupt diversion of the payment.}

\textit{Life at School}

Pammi walks on her hands to get to school and though her house is not far away, it is very hard to get to school. She receives no help from her parents to reach the school. The researcher having walked on those bumpy, rough roads can imagine Pammi’s plight in making those daily journeys.

Pammi said that she had once dropped out of school in year 4 but continued again because she wants to study further. Her teacher said that Pammi is not an especially bright student but an average one and that she can read and write properly. Pammi said that she feels secure and well cared for in the school. This was supported by the later remark of a teacher who said that when Pammi was unwell a teacher would assist her in getting to school.

\textit{Life at Home}

Pammi’s family don’t own land but have a basic house. She said her parents don’t work but her brothers are plumbers and have jobs. There are six children in the family. The elder two are illiterate; two others studied till year 8 and year 10. The four elder siblings are all married. Only Pammi and her younger brother are currently studying. He goes to a private school.

\textit{Aspirations}

Pammi said she wants to study “completely” but when asked “what is complete?” she did not answer. On asking what she wants to be she did not say anything. She studies 2 to 3 hours everyday at home and her two educated elder siblings help her with studies.

d. \textit{Anju (SC, Jatav\footnote{Jatav (alt. Jatava, Jatiya) - a social group, part of Chamar caste of Dalits, listed as a Scheduled Caste}})}

Anju is 15 years old and in grade 7. She got married nine months ago but continues to stay with her parents. She recently shifted to Toda Bhim, her maternal grandparents place, with her whole family. She said getting married has changed her life slightly as now she has something extra to think about. She has two older sisters who are also both married.
Life at School

She said that she didn’t feel discriminated against in school.

It was very hard to talk to this student because school teachers and some people from the village were constantly coming and going out of the room though a request was made for a quiet time with Anju.

Aspirations

She wants to study as much as possible but now the decision regarding this would be taken by her in-laws and she is not sure for how long they would permit her to study. Anju said so far she has not visited her in-laws place.

C. Parents

The environment a child is raised in has a significant impact on their personality, behaviour and outlook. Teachers in Rajasthan commonly held parents responsible for low attendance and low performance levels of students. A common explanation given for both ills was the illiteracy of parents. Twenty two members of students’ families were interviewed, as well as parents there were grandparents, older siblings and uncles. They ranged in age from late teens to late 70s. Their literacy levels were similarly varied: 15 were completely illiterate, including 4 grand-parents who had literate sons educated to years 10 & 12. Two mothers in this group were illiterate but they informed the researcher that their spouses attended school till year 5 and 9. Of the 22 family members 7 had attended school but dropped out at different levels - one couple studied till year 10, one father till year 5. The number of children per couple varied from 2 to 6.

Family members were either working as day labourers on the farms of others or as casual rural labor whose work on farms depended on the season - during harvest or sowing season they got work regularly while during other parts of the year it varied. A small fraction of this group of family members had a small land holding. Parents refrained from talking about their financial status and income/salary levels. The NGO workers told the researcher that the reason behind this was that most of these families hold a BPL (Below Poverty Line) certificate175 so they fear disclosing their financial

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175 What criteria should define the ‘poverty line’ is contentious. In the Ninth Five-Year Plan (1997-2002), the poverty line for rural areas was set at an annual family income less than ₹20,000, having less than two hectares land, and no television or refrigerator. In the survey for the Tenth Five-Year Plan (2002-2007) the poverty line for rural areas was based on the degree of deprivation in respect of 13 parameters, each with a 0 to 4 score: landholding, type of house, clothing, food security, sanitation, consumer durables, literacy status, participation in labour force, means of livelihood, status of children, type of indebtedness, reasons for migrations, etc. There are variations on the criteria for urban areas. Kerala uses its own criteria. The Planning Commission issues annual figures for monthly income (rural and urban) which it regards as defining the ‘poverty level’. Critics have said that ‘starvation level’ is a more apt term. In
status. With exception of just 4 children who were attending private schools all their children, grand children and siblings attended state schools. Among those four instances the details varied. With the initial family having their daughter at state school and son at a private one, initial thoughts were that this was an illustration of gender discrimination. However, this was not necessarily the case as some families had girls going to private school. In one family where a girl was not attending private school, though her brother was, it was at her insistence as all her friends were in state schools so she refused to go to a private school. This is a small number of cases among families selected for being poor. Poor families tend to use state schools for financial reasons. With a bigger sample, and drawn from the wider community, there may have been the tendency to favour private schooling for boys as against state schooling for girls that is reported in the literature (e.g. Desai et al. 2009 table 3; Chudgar et al. 2012 p379).

Out of these 22 family members interviewed 1 was Scheduled Caste (SC), 2 Other Backward Caste (OBC), 12 Scheduled Tribe (ST) and 8 belonged to the General category. Two interviews were conducted in Chaksu (Jaipur) and one in Toda Bhim (Karauli). The remaining 19 interviews were conducted in Ghatol (Banswara) thus contributing to high proportion of ST family members being interviewed as Banswara has high ST population.

The researcher also noted that some parents being interviewed in Rajasthan were quite young - in their late teens but already with 2 or 3 children. It was apparent that child marriage laws (minimum ages of 18 for girls and 21 for boys) were not always adhered to in the state.

Only one person out of the 22 interviewed expressed complete satisfaction with the local state school, 5 were partially satisfied and 16 completely dissatisfied.

Some of the comments by family members:

**Rakhi:** “I am happy with the school, teachers come regularly but the only thing that stresses me is that school does not have a good building to accommodate all children - like one class is sitting in veranda in the sun. The school needs to have a boundary wall and electricity connection.” (Chaksu)
Rakhi and her husband were both illiterate and could not help their children with homework at home. Rakhi said she felt proud her son read to the researcher. She was talking to the researcher while bathing her younger child at the school hand pump. She told the researcher that she has four children: two of whom are of school going age and attend school regularly. Rakhi’s poverty was reflected in her tattered clothes.

Alok’s two children go to a private school and private tutoring everyday but his brother’s two children attend the local state school. In giving his reasons for not sending his children to the state school he said:

Alok: “I do not want my children to be treated like cattle, there is no proper space for children to sit in this school, forget about tables and chairs. The state school does not even have a toilet and children go outside to do it. But in private school a vehicle comes to pick my children and drop them too.” (Chaksu)

Alok was thankful to the family who has given a part of their house for use as the village school as school did not have its own building.

The lady who had given part of her house to the school works as a para teacher in the school. She said:

“I am not scared and can speak in front of any one that government or village people have done nothing for education of the children.” (Chaksu)

Raghu, the father of 5 girls and a tailor by profession, said:

Raghu: “I do not make much money, if I was financially better off I would like to send my children to private school because education in private school is better. My daughter in grade 3 can’t read generally students in this school start reading and writing properly from grade 4/5.” (Ghatol)

Grandparents of some children were interviewed as it was a harvesting season and parents were away working in the fields. These grandparents had four grandchildren, three of whom go to a private school and one to a state school. They said it cost ₹10,000 per annum to send one child to a private school, but that they have a son working in Kuwait who sends the money. Commenting on sending all their children to state school they said:

“Though education is free in state schools but teachers don’t come regularly and if they come they don’t teach so how can children learn.” (Ghatol)

On asking about the reason behind low student attendance in the local state school they said:

“It is generally for the students in lower grades (1-3) because teachers don’t pay attention but it improves in grade 4-5 and is even better in grade 6-8. Bigger fault here is of the teachers, if a student is away for 10 days why don’t teachers go home or send a message to find why the child is not coming to the school? It does not bother the teachers if a child is studying or not? The Panchayat plays no role in education - if it did then teachers would have been on the right track today.” (Ghatol)

At another household in the village that sends the children to a private school the mother said:
“We want our children to have a base in English which is not possible in a state school.”
Talking to an older sibling of two students, one attending a state and other attending a private school, he said:

“Studies in the state school are really bad; my sister in grade 8 cannot even read one lesson from the book. It is not only her but many other students in her class and the school. Teachers are not interested in teaching as most of the grade 5 students can’t count and write the numerals from 1-10.” (Ghatol)

and on private schools he added

“My brother goes to a private school though till grade 8 he was in a state school and could not even read properly but then I moved my brother to a private school and he started doing well because teachers were paying attention. My brother passed grade 9 this year with a first division. His mathematics has improved immensely.” (Ghatol)

Some parents held other parents responsible for the low student attendance in state schools. Their complaint was that all parents should pay attention and make sure their children attend school regularly, but they also held teachers equally responsible for not teaching students properly thus resulting in lack of attendance in schools.

D. Facilities & government assistance

(i) Scholarships

Scholarships are available for various categories of students. These are intended to encourage school attendance among disadvantaged groups, compensate for economic hardship, overcome gender prejudice and assist special needs students. Thus they fall in the category of overall incentives to parents and students to participate in education rather than being rewards or acknowledgment of scholastic achievement. They are provided on the basis of an individual’s membership of a particular category rather than being connected to individual achievement. As with other aspects of Rajasthan’s education system there were problems with the implementation - the case of Pammi detailed above is a good example.

Government scholarships for SC/ST students start from grade 6 onwards: ₹750 for ST/SC girls and ₹150 for ST/SC boys per annum.

Apart from this there are other scholarships provided, two that were mentioned several times were Aapki Beti Yojna (for girls who have lost one or both parents) and scholarships for Aswach children (lowest of scheduled castes - those engaged in tanning animal skins).

a. Distribution of Scholarships

All the Upper Primary Schools visited in Rajasthan were receiving the scholarships for SC and ST students except one. In one the principal though seemingly very thorough with his paperwork, said in his conversation that he does not know about this particular scholarship. This poses a significant problem as this school was a NODAL school with
8 schools under its supervision/administration, so if this school does not receive a particular scholarship it means the eight schools under it won’t either. The principal did mention other scholarships that were coming to the school and even showed the accounts for these including a cheque for ₹48,000 rupees to be deposited in the bank for various scholarships.

A major problem seemed to exist in regards to the scholarship for disabled students as told by some teachers:

Shivam: “There are two disabled children, one has a doctors certificate declaring he is more than 40 percent disabled, though they applied for scholarship for that child last year but till now money has not come”. (Toda Bhim)

Ravi supported this.

Apart from Pammi there were other disabled students for whom papers have been completed and submitted but have not received any allowance or scholarship.

(ii) School Facilities
Bringing all school buildings and classrooms up to a minimum standard, including provision of basic infrastructure such as availability of drink water and separate toilets for girls and boys, is one of the objectives of the SSA program. There are two main aspects to this: (i) students are more likely to attend school if physical conditions are satisfactory. The absence of separate toilets for girls has frequently been cited as a reason that girls don’t attend and, when they do, drop out of school as they become older; and (ii) good physical infrastructure provides a more conducive environment for learning.

Many of the schools visited lacked basic facilities such as toilets, clean drinking water, electricity, boundary wall, library and playground. All schools had a pucca\textsuperscript{178} building but some of them were in poor condition and badly in need of maintenance. In terms of basic facilities much was lacking:

- Toilets - separate for girls and boys in 10 of 22 schools
- Drinking Water - in 10 of 22 schools
- Boundary Wall - in 12 of 22 schools
- Playground - in just 1 of 22 schools
- Electricity connected and functioning - in 12 of 22 schools
- Library of some form - in 5 of 22 schools

Only one school had all six listed facilities; five had none.

\textsuperscript{178} solid: stone, brick or concrete - as distinct from makeshift building
A boundary wall, defining the area of the school, is of practical importance - stopping stray cows wandering among the students, inhibiting adults from entering the school grounds and using facilities (water, toilets), but it also has a significant symbolic and psychological impact. A boundary wall physically defines the school as an entity, and thus potentially of significance, amidst the often chaotic collection of structures in a village.

Table 33 Overview of Facilities

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Some of the teachers’ comments:

- **Rana**: “School has toilets but now they were in dilapidated condition.” (Toda Bhim)
- **Mira**: “School has no toilets though they were there but village people started using them and now they have become useless. All the doors and windows of the toilets are broken. Maybe when the money comes next year we will use it to build toilets.” (Ghatol)
- **Zainab**: “There is a hand pump in the school but its water is saline so can’t be used for drinking purpose.” (Chaksu)
- **Rana**: “School has been given new computers so electricity is a must. So far the school does not have electricity but they have put in an application for the connection of the same. It is very hard without electricity especially in the peak summers.” (Toda Bhim)
- **Mira**: “It would be good to get a boundary wall in the school. Then I can stop students even more if they try to leave school early. I have tried putting glass to prevent the encroachers who come to school in the evening to play but boundary wall would be good. They have even broken the glass. Sometimes even animals enter the school because of the absence of a boundary wall.” (Ghatol)

**Rajasthan schools, a summary:**

The general condition of education in the state schools visited in Rajasthan was poor. Although buildings were solid many were not well maintained and classrooms were generally bare apart from an occasional antiquated chart or map. About thirty percent of teachers were absent in the schools visited - almost entirely for reasons unrelated to official duties or to their health. Student absenteeism was even higher - an average of over fifty percent across all the sample schools, though there was large variation. Twenty-two classrooms were observed and almost no teaching seen in any. Impromptu testing of student’s literacy, oral and written, showed generally low capabilities. Teachers offered many reasons for the poor state of things, often including the illiteracy and lack of interest of parents. In a number of instances discussion revealed that
teachers had little knowledge either of individual students, or of the student’s local community. Some expressed skepticism as to the student’s capacity to learn.

There was widespread resentment among teachers about their work situation - at being tasked with non-teaching chores, required to attend worthless (so perceived) in-service activities, at not receiving support from local education committees and a widespread frustration at being expected, despite all this, to teach children who were socially distant from themselves and apparently not interested or incapable of learning. Most seemed to have given up.

All eligible schools had received SSA school maintenance allowance as well as the grants to teachers for learning materials (TLM). There was little of evidence for effective use of either. Materials purchased with TLM grants, supposedly stored in schools, could not be shown when requested, let alone seen in use. Comments suggested the grant was often misused.

The parents interviewed wanted their children educated and many expressed dismay or anger at the nature of schooling available; teacher’s absence and neglect of teaching were regular complaints. Some found their child’s school satisfactory but there was widespread frustration arising from three main sources: that schools remained unsatisfactory and they felt powerless to alter that situation; that they were often unable to provide assistance to their children owing to their own lack of education and that they could not send children to the (perceived) better quality private schools as they lacked the required money.

Though the parents interviewed placed value on education the local School Management Committees (SMC), with parent representation, supposedly established to guide the governance of every school were either non-existent or not functioning. This was a source of complaint among teachers, sometimes given as a reason for students’ low achievement. Though it is likely a poorly functioning SMC might make some administrative tasks difficult, the argument that it would directly affect classroom learning is spurious.

Students in class were often reluctant to respond to questions or even to read a simple passage when requested. The six female students interviewed outside school were quite articulate and spoke freely about school, home and their aspirations. None felt discriminated against on account of gender or caste. Only one had positive views of the teaching she experienced. All had demanding lives outside school with substantial chores in their own homes and, for several, paid jobs as well. Despite this all studied outside school hours, several had at some times also taken private tuition, and all expressed a desire to continue schooling, though they also had expectations that this was not likely to happen.
Chapter 6  Himachal Pradesh field study

Introduction

Himachal Pradesh is one of the smaller states in India in terms of population with nearly 7 million people in an area of nearly 56 000 km\(^2\) – a little more than twice that of Israel (which has a slightly larger population). In mountainous terrain encompassing part of the Himalayas and foothills, it is largely rural with just 10 percent of the population classified as ‘urban’ in the 2011 census. The largest town, Shimla, has a population of about 150 000 and there are just 13 other towns over 10 000 in population – none over 50 000.

The topography has, until recently, inhibited easy movement so that numerous independent centres of habitation came into existence. Even now travel is often slow - along narrow, winding mountain roads. The state is divided into twelve administrative regions, two of which have no urban centres\(^{179}\).

By income and education Himachal is well off among Indian states: Indian government statistics\(^{180}\) for 2011-12 rank it third for per capita income and by the 2011 census data it ranks fifth in overall literacy with a rate of 84 percent. By overall female literacy it ranks fifth among the states but there is a significant difference between male and female literacy rates. A considerable proportion of children attend private schools (Desai (2009) quotes 18 percent) but at a rate much less than the national average\(^{181}\).

Background

Eighteen schools were visited, all in rural areas. The schools fell in four blocks across three districts\(^{182}\). The districts were spread from near the western boundary to near the eastern borders of the state. All the schools were “Primary” (grades 1 to 5) as, unlike in Rajasthan, “Upper Primary” classes in Himachal are all conducted in separate institutions with their own principal.

\(^{179}\) A centre with population >5000, <25% males in agricultural work and population density >400 per km\(^2\) (Office of Registrar General & Census Commissioner)


\(^{181}\) It is interesting that Kerala, so frequently cited for its high literacy, has the highest proportion of students in private schools of any Indian state (~60%) while Himachal, with high and rapidly improving literacy, has a relatively low proportion of students in private schools.

\(^{182}\) Parents were interviewed in a fourth district.
The research was carried out in Chamba, Solan and Shimla districts shown on the state map below. Shimla district hosts the state capital, the city of Shimla, but the schools visited in Shimla district were all rural ones. These districts were chosen, based on data collected by DISE, as ones with low, intermediate and high student literacy in rural areas; Chamba being the lowest and Shimla the highest.

Figure 17  District map of Himachal Pradesh showing research districts

The schools varied somewhat in terms of physical facilities and, though none were well equipped, all the buildings were well maintained. Student enrolments varied from 5 to 116 and the number of allocated teachers from 1 to 6. The gross school ratio of students per teacher varied from 2.5 to 41 but these figures are outliers – among the seventeen schools for which data was obtained, twelve had ratios between 10 and 20. With the exception of one school class sizes were small, in most cases well under 20 and variations due to teacher absence, grade amalgamation, extensive student absence etc were rare.
As in Rajasthan, Hindi is the medium of instruction in Himachal Pradesh elementary schools, with English taught as a second language.

As in Rajasthan there was slight trend to a higher student/teacher ratio in larger schools but the variation was much less than in Rajasthan.

Table 34 PTR for HP research schools

<table>
<thead>
<tr>
<th>total student enrolment</th>
<th>total teachers</th>
<th>student/teacher ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
<td>10.0</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>10.5</td>
</tr>
<tr>
<td>30</td>
<td>4</td>
<td>7.5</td>
</tr>
<tr>
<td>30</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>32</td>
<td>2</td>
<td>16.0</td>
</tr>
<tr>
<td>34</td>
<td>3</td>
<td>11.3</td>
</tr>
<tr>
<td>37</td>
<td>3</td>
<td>12.3</td>
</tr>
<tr>
<td>41</td>
<td>3</td>
<td>13.7</td>
</tr>
<tr>
<td>42</td>
<td>1</td>
<td>42.0</td>
</tr>
<tr>
<td>50</td>
<td>4</td>
<td>12.5</td>
</tr>
<tr>
<td>52</td>
<td>4</td>
<td>13.0</td>
</tr>
<tr>
<td>54</td>
<td>2</td>
<td>27.0</td>
</tr>
<tr>
<td>66</td>
<td>3</td>
<td>22.0</td>
</tr>
<tr>
<td>67</td>
<td>4</td>
<td>16.8</td>
</tr>
<tr>
<td>73</td>
<td>5</td>
<td>14.6</td>
</tr>
<tr>
<td>116</td>
<td>6</td>
<td>19.3</td>
</tr>
</tbody>
</table>

It was not apparent why a school with five students should have two teachers while another with forty-two students had a staff of one. There is a policy within SSA to eliminate single teacher schools (by increasing staffing, not closing such schools\(^{183}\)) which might account for the first instance; the second seems an anomaly.

A. Teachers

Twenty seven teachers were interviewed – sixteen individually, the remainder in two groups - of three and of eight. Those interviewed comprised eight male and nineteen females; all were permanent employees. Qualification details were obtained from sixteen teachers and were more varied than in Rajasthan – for three teachers their highest level of education was year 10, one had a PhD; most did not have a tertiary level teaching qualification. Details on length of teaching experience were obtained from only

\(^{183}\) However the state Director of SSA told the researcher that the HP Department of Education intended to implement a “consolidation policy” whereby schools with small enrolments would be closed and students enrolled at neighbouring schools. The motive for this policy is that of economic efficiency. Teachers and parents at several schools were aware of this possibility and fearful of it affecting the school in their community. The drift of students to private schools was considered undesirable partly because of the threat declining enrolment posed to the local government school’s ongoing existence. Having visited some HP schools in very rugged terrain (some with no road access) the researcher believes that closure of a local school might well lead to some students ceasing schooling. Though the SSA Director said that the consolidation policy would be accompanied by provision of transport to the nearest school this would be difficult and slow in some locations.
eleven teachers, all but one of whom had worked for over a decade. Four of those interviewed were Head Teachers (two female, two male), the rest classroom teachers.

Newly employed teachers in Himachal Pradesh are on contracts for the first eight years of teaching and then obtain permanency. This is a relatively recent change and was mentioned to the researcher several times; but though all the teachers interviewed had taught for less than eight years, neither they, nor more experienced colleagues, or any parents, expressed concern about the contract system.

Nor did a single teacher express frustration at the location of their employment and associated desire to transfer to another school. Nor were there accounts of teachers personally obtaining postings via irregular means or allegations that others had done so.

A summary of the qualifications and teaching experience of the Himachal teachers interviewed follows:

<table>
<thead>
<tr>
<th>Years experience</th>
<th>N°</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 5</td>
<td>1</td>
</tr>
<tr>
<td>5 - 9</td>
<td>5</td>
</tr>
<tr>
<td>10 - 14</td>
<td>5</td>
</tr>
<tr>
<td>15 - 19</td>
<td>3</td>
</tr>
<tr>
<td>20 - 24</td>
<td>2</td>
</tr>
<tr>
<td>25 - 29</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Qualification</th>
<th>N°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yr 10</td>
<td>3</td>
</tr>
<tr>
<td>Yr 12</td>
<td>1</td>
</tr>
<tr>
<td>JBT *</td>
<td>2</td>
</tr>
<tr>
<td>BA</td>
<td>5</td>
</tr>
<tr>
<td>BEd</td>
<td>1</td>
</tr>
<tr>
<td>BSc</td>
<td>2</td>
</tr>
<tr>
<td>MA</td>
<td>1</td>
</tr>
<tr>
<td>PhD</td>
<td>1</td>
</tr>
</tbody>
</table>

* JBT – Junior Basic Training

As in Rajasthan teacher attendance and approach to teaching were seen as significant concerns. Similarly teacher absence was quite high but the reasons for absence were rather different. So, too, was the approach to teaching.

(i) Attendance

Observation and checking of records showed that there were significant numbers of teachers absent on the day each school was visited. Of the eighteen schools just five had all teachers present. At one school three of its complement of four teachers were absent, at another five schools half of the teachers were absent, a third at a further five and one school was missing a quarter of its staff. Five schools had no staff absent. There was no relationship between school size and teacher absence and in all cases the reason for a teacher being absent was that they were attending an in-service seminar (confirmed later by the Department of Education). Each teacher in a primary school (grade 1-5) is

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164 Qualifications were able to be checked only for some staff.
expected to attend 15 - 20 days of compulsory seminars organised by the Department of Education in Himachal. Despite the apparent drastic nature of having a third or a half of a school’s staff absent the impact on student learning may not be as severe as one might imagine. Most of the schools are small, nominal student/teacher ratios are low. Absent staff and no replacement teacher means a school copes by combining classes, ‘teaching by rotation’, or leaving classes unsupervised. Combining classes was the universal strategy in Himachal.

While the staff absences found on the days the schools were visited resulted in higher than normal student/staff ratios, they remained at 22 or less in eight schools and to 33 or less in three others. In two schools the absences produced large classes (54, 67). Teachers expressed some concern about the effect of absences, though the comments were mingled with more general thoughts on the level of resources:

Mandeep: “School has received new books for this academic year from the government but right now we don’t have enough teachers to teach and distribute because we have to go for seminars. All teachers have to go for seminars in rotation from this school.” (Theog)

Rekha and Irfan: “Apart from teaching duties we have to collect data for national census and attend large number of seminars organised by Dept. of Education. In one academic year, 2-3 months on an average just go when we are not able to teach.” (Theog)

Despite the implied critical attitude towards the effect of seminars on the daily running of schools, the seminars themselves were generally regarded as valuable by teachers. Unlike in Rajasthan, where teachers directly questioned about seminars said they were of little use, those in Himachal overwhelmingly considered them valuable (14 out of 16 responses). A striking feature of these comments was that so many focused on the quality of education, whether reflecting on satisfaction with their own work or on how schooling was perceived by others. This concern with the quality of education was absent from conversations with teachers in Rajasthan.

Preeti: “Seminars affect teaching in school because today two teachers are away at seminars. HM had gone to other schools so I am the only one to teach 63 students and it poses difficulties. I have just taught English since morning and that too just to one class. I am not satisfied with today’s work. (Shimla Rural)

Renuka: “Even if one teacher is present she will make sure she performs her duties well. Sometime they even put in extra time.” (Theog)

The same point was strongly asserted in Shimla Rural by Anita, Raghav and Pankhuri

(ii) Attitudes
Teachers in Himachal often had strong views on a large range of factors affecting education. Unlike in Rajasthan the focus of the discussion here was overwhelmingly on

\[^{185}\text{HM} – \text{Headmaster; “other schools” are the cluster schools under the supervision of this nodal school.}\]
how each item of concern affected students’ education. On some issues there was wide agreement, but never consensus, while on others there were diverse views.

a. Views on parents
Teachers views of parents and the way in which they were seen to support their children’s education were mixed:

Rekha & Irfan:
“Some parents are educated and some are not. Though we try to make children do as much work possible in schools but at times when we do give homework not all students finish it mainly the ones whose parents are illiterate.” (Theog)

Similar views about suggesting lack of support to students by illiterate parents were heard from Sanjay in Shimla Rural, and in Kunihar from Smitha.

Smitha: “Each family in this community is provided money by the government to build their house, ration too is provided free of cost apart from other facilities like free education. School attendance for these children is very low. Even if a relative of these children dies, children with their parents leave to attend the grieving family for days on end. But even if there isn’t a problem at home children do not come regularly to school. No child from this community goes to a private school.” (Kunihar)

Despite the comments some had made about parental attitudes, and students being kept home to work, student attendance in the schools visited was between 95 and 100 percent. The generalisations about parental attitudes are difficult to reconcile with the rapid increase in school attendance and literacy levels in Himachal and the great demand for private schooling, even among those who are struggling financially. Many other teachers however had more nuanced, and generally more positive, notions of parental attitudes to education:

Mandeep: “If we give homework to students they usually finish because someone or other is educated at home.” (Theog, Page 2; Shimla Rural, Page 2)

Preeti: “It is not necessary that illiterate parents don’t pay attention to their children’s education, and if they don’t teachers try to motivate the parents so that they can be made aware. I have witnessed in Himachal that illiterate parents or less educated parents don’t want their children to be like them. They want their children to be good and educated.” (Shimla Rural)

In Shimla Rural Anita, Raghav & Pankhuri were also of the opinion that students were normally able to finish homework because they could find someone literate at home to help when necessary.

When asked specifically about the factors that enabled Himachal to quickly achieve a high literacy rate, many teachers cited parental attitudes¹⁸⁶, often with an understanding

¹⁸⁶ Including some, such as Ram Pradesh, who had earlier spoken of parental indifference as a hindrance to improving education! These are not necessarily inconsistencies, the easy expression of conventional views in keeping with that instant’s focus of conversation. My impression is that they were usually the result of nuanced understanding - that different groups of parents held varying attitudes but the overall impression held by the teacher was positive or negative and that it was that which was expressed when
to social, economic and empowerment factors that extended beyond the idea that ‘parents think education is good’:

Manas: “I feel that parents opting for operations for birth control have helped in improving literacy rates as now the strength in the schools is much smaller than before. When parents are educated they contribute towards their children’s education and this has been an important factor in increasing literacy rates in Himachal.” (Chamba)

Pankhuri in Shimla Rural expressed the same view.

Aurnab: “The reason for high literacy rate in Himachal is because of active SMC. When there was a VEC\(^{187}\), its members were village people whose children went to private schools and they were not too keen on improving state schools, now it is different because SMC members have their children studying in this school.” (Kunihar)

Some teachers attributed the high literacy in Himachal to SSA, MDM and the combined efforts of parents and teachers.

b. Views on students

Table 37 Enrolment and student attendance data on the day of visit for eleven schools

<table>
<thead>
<tr>
<th>total</th>
<th>%</th>
<th>student enrolment</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>present</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>80%</td>
<td>30</td>
<td>93%</td>
</tr>
<tr>
<td>30</td>
<td>100%</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>21</td>
<td>95%</td>
<td>34</td>
<td>100%</td>
</tr>
<tr>
<td>34</td>
<td>100%</td>
<td>37</td>
<td>100%</td>
</tr>
<tr>
<td>37</td>
<td></td>
<td>50</td>
<td>98%</td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>41</td>
<td>100%</td>
</tr>
<tr>
<td>41</td>
<td></td>
<td>32</td>
<td>94%</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td>67</td>
<td>94%</td>
</tr>
</tbody>
</table>

Perhaps the fact that so many of the Himachal schools visited were small made a difference, for in a setting where one teacher works with ten students understanding of each pupil as an individual is more likely than when the class size is thirty or more, but complaints about the nature of students were virtually absent from Himachal teachers.

Teachers did complain about a few students who were present in school - about not paying attention or their performance in class not ‘being up to the mark’.

Vandana: “I have 16 students in my class (grade 2) out of which 9 are good but 6 can’t read. They don’t even know “A” in Hindi script after being in school for 1 year. The ones who can’t read were admitted at the beginning of the year when they were in grade 1\(^{188}\). I do not think these students are slow because they are number one in naughtiness.” (Kunihar)

Pallavi: “Our students though not brilliant can all read - unlike in the past when they used to be in grade 5 and could not read at all”. (Theog)

Vandana’s comment about students not being ‘slow’ (i.e. not lacking intelligence) but ascribing their illiteracy to ‘naughtiness’ might also be related to the rote learning mode

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187 SMCs (School Management Committees) are local governing bodies for schools, they replaced the previous local bodies, VECs (Village Education Committees).  
188 “beginning of the year” is calendar year, January, but the academic year starts in March - what she is indicating is that students completed just 2 months (Jan, Feb) in grade 1 then were promoted to grade 2 at the start of the new academic year.  
189 i.e. they are not inherently “slow” but perform poorly because of their inattention (‘naughtiness’). Possibly their naughtiness is because they are struggling to cope having missed most of grade 1.
of teaching which was observed in most Himachal classrooms. One element of the SSA program aims to alter teaching methods, promoting a move away from ‘drill and practice” rote instruction to ‘child centred activity based learning’. Curriculum reform and in-service training are part of this process\textsuperscript{190}, directed from the national and state levels. At the school level, SSA provides an annual grant to every teacher to purchase “Teacher Learning Material” (TLM) with the expectation that purchase made will assist the teacher in adopting a more interactive, activity based, pedagogy. In contrast to Rajasthan where there was nothing to see as evidence of TLM expenditure, in Himachal it had been productively used. Sometimes on traditional classroom teaching aids (wall-charts, posters), sometimes innovatively to decorate school walls with educational designs\textsuperscript{191}. But nothing was observed that indicated its use within classrooms in ways that altered traditional methods of teaching.

c. \textit{Views on Girls’ Education}

In Himachal, as in almost all parts of India, the literacy rate for females is lower than for males. The gender gap in literacy rates in Himachal varies between districts generally larger in rural areas\textsuperscript{192}, but the gap has decreased in all districts in the last decade\textsuperscript{193}. When teachers were asked about the difference in literacy and whether girls were discouraged from attending school almost all were of the opinion that discrimination in regard to education did not exist:

\textbf{Fazil:} “Parents support girls’ education but yes there is discrimination when it comes to rights to property and inheritance rights.” (Shimla Rural)

Manas in Chamba also stated that parents supported girls education.

\textbf{Aurnab:} “This school is co-educational but has more girls and very few boys.”

The researcher said that one reason could be because the boys are sent to private schools but Aurnab replied that:

“there would be just 10 percent of such parents who indulge in this kind of discrimination of sending boys to private and girls to the state schools.”
(Kunihar)

Parents also by and large held that girls were not experiencing discrimination in educational opportunity (details below). In fact a few parents were interviewed who sent

\textsuperscript{190} See National Curriculum Framework (National Council of Educational Research and Training 2005) for former, and Yadav (2012) for research on the latter.

\textsuperscript{191} Many and varied: times tables, maths operations, maps (India, Himachal, district), parts of grammar, Indian presidents, persons of academic achievement etc

\textsuperscript{192} A difference of 23% in rural parts of Chamba but less than 3% in urban parts of Shimla by 2011 Census

\textsuperscript{193} e.g. from 29% to 23% in rural Chamba, from 4.9% to 2.4% in urban Shimla based on 2001 and 2011 Census figures. For most districts the gap has decreased by about 20%.
their daughters to private schools and their sons to state school and many parents who
sent both boys and girls to the same school (private or state).

A few teachers expressed different views about parental attitudes towards sons and
daughters and the consequent effect on education. It was thought that in particular sub-
groups within Himachal overt discrimination against girls attending school still existed,
while others pointed out that the more permissive attitude towards males could
adversely affect their education:

Talking of a particular SC community,

**Smitha**: “Discrimination between a boy and a girl child exists. Preference is given to a
boy child. Mothers' prefer having boys and they keep having more babies
sometime up to 4 or 5 girls and stops after a boy is born.” (Kunihar)

**Fazil**: “A very few highly educated parents might say that girls and boys are the
same but 80-90 percent of parents will say that a son is a must. If we look at
year 10 and year 12 results the maximum pass result is for girls and that is
because boys are given more freedom and so they tend not to do well in
studies.” (Shimla Rural)

Though the still considerable gender gap would seem at odds with the majority opinion
of teachers and parents - that there is no educational discrimination against girls - that
opinion can be seen as not actually anomalous when we recall that this is a society
undergoing rapid change. The census literacy data are for the whole population, so
captures gender discrimination existing in past generation, not necessarily reflecting the
present situation. The rapid closing of the gap and the fact that current attendance
figures show virtually 100 percent enrolment for both boys and girls are consistent with
the opinions given by teachers and parents.

d. **Views on governance & bureaucracy**

Whereas in Rajasthan attitudes of teachers toward the state education bureaucracy came
across as seeing it as at best indifferent to education, teachers in Himachal generally
saw the local bureaucracy as well intentioned though not necessarily well informed or
resourced to implement policies competently. Thus they seemed to view themselves as
agents in a system that worked, however imperfectly, toward the goal of quality
education. This contrast with Rajasthan teachers was stark as many there seemed to
view themselves as powerless, irrelevant, workers within a dysfunctional system.

In Himachal all the schools visited received each of the three SSA grants\(^{194}\) on time,
however there was some dissatisfaction with late payment of funds connected with the
Mid Day Meal program.

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194 Building maintenance (₹5,000 primary schools, ₹10,000 upper primary schools), School Facility
   (₹5,000 primary schools and ₹10,000 upper primary schools) and Teacher Learning Material (₹500
   per teacher in both primary and upper primary schools).
There was some vigorously voiced dissatisfaction with governance and policies but directed rather at local and central bodies rather than Himachal state entities. The operation of village level bodies charged with helping to run schools was a source of frustration in some places, though this was not universal. At the other end of the governance chain several central government policies were frequently cited as sources of dissatisfaction. One of these is the mid-day meal (MDM) scheme, which in some form predates SSA but has been incorporated into it, and has been conducted in Himachal as supply of cooked meals since 2003 (Government of Himachal Pradesh 2012). Others concerns are aspects of the Right to Education Act (RTE), particularly regarding the timing of student admission to school and ‘automatic promotion’.

**Local governance**

Some schools had an extremely active SMC, examples of such committees’ activities that were cited included:

<table>
<thead>
<tr>
<th>Table 38</th>
<th>Four common SMC activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>assistance in construction of buildings (toilets specifically mentioned)</td>
<td></td>
</tr>
<tr>
<td>recruitment of teachers</td>
<td></td>
</tr>
<tr>
<td>sourcing money to employ additional teachers above state entitlement</td>
<td></td>
</tr>
<tr>
<td>introducing new school uniform</td>
<td></td>
</tr>
</tbody>
</table>

Anita, Raghav & Pankhuri:

“In this school the SMC is very active. SMC members always come to attend the SMC meetings.” (Shimla Rural)

The active role of the SMC was attested to in many other places e.g. by both Preeti and Vandana in Kunihar and by Manas in Chamba.

There was no mention of SMCs taking a role in the curriculum or of the way in which teaching was conducted. Teachers valued the work of active SMCs and in some communities lamented their poor functioning. It is not just the lack of support that was missed, for as the assent of the head person in an SMC is required to authorise certain payments, an ineffective body can inhibit a school’s operations.

Sanjay: “Most of the parents are not educated; they hardly come for SMC meeting. Only if called several times they come to attend the meetings” (Shimla Rural)

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195 currently School Management Committees (SMC), previously Village Education Committees (VEC) - though both are constituted at gram panchayat level they have significantly different compositions.

196 Grain supplements were distributed starting in 1995 (to students with 80% attendance) to be replaced by cooked meals at midday to children in ST areas in 2003 then universalised to all primary schools in 2004. The scheme was extended to Upper Primary in 2008.

197 This in a system where free uniform is provided by the state. Locals (teachers and parents) spoke of changing from traditional dress to modern skirts, trousers and tie. When the researcher discussed this with the state director of SSA, his view was that locals wanted a uniform that looked as “smart” as that worn by pupils attending private schools. It appeared that the motivation was to avoid one’s own children looking dowdy alongside their peers attending private schools rather than an attempt to market the state school. That parents are focussing on the ‘smartness’ of the uniform suggests that its provision didn’t fulfil an economic necessity - the rationale behind the free uniform program.
Sanjay came from the same area, but not the same school as Anita, Raghav and Pankhuri; complaints about SMC functioning also came from Damini and Rita in Chamba and from Rahhika in Kunihar. That teachers in different schools in the same area had diametrically opposite views on the operation of SMCs indicates that the issue is to do with particular SMCs rather than the general policy of local input to school governance.

Because of the frustration experienced when SMCs didn’t function effectively, teachers in some places suggested that the membership of their SMC be changed as current members were not regular in attending the meetings. When this was mooted some took the matter further, making a case for change on the basis that even if parents came to SMC meetings they do not contribute anything - particularly by way of suggestions.

Where an SMC was viewed positively teachers expressed appreciation for a variety of its specific initiatives, but in the opposite situation it was not so much any specific omission that rankled as the feeling that the community was indifferent to teachers’ work. This was particularly so in areas where new educational initiatives are being introduced and policy documents task SMCs with assisting in their implementation. That some teachers praised their SMC suggests there has been improvement since 2006 when an audit of SSA in Himachal Pradesh found no local (village/community) level involvement in planning in the schools surveyed (Comptroller and Auditor General of India 2006 Pp39, 45).

Mid-Day Meal Program (MDM)
There was widespread dissatisfaction among teachers related to the Mid Day Meal scheme.

**Raghav**: “MDM has contributed a lot in a negative way; parents generally think that state schools just have eating program and nothing else. MDM might have helped in UP, Bihar but not in Himachal because that kind of poverty does not exist in Himachal.” (Shimla Rural)

This was a common view: Rita in Chamba, Preeti in Shimla Rural and Vandana in Kunihar all thought the MDM program was not needed in Himachal Pradesh.

**Raghav**: “It was good when MDM involved distribution of the ration but now school just gets money; buying vegetables, spices and specially gas cylinder takes a lot of time and to top it all we have to supervise the cooking too.” (Shimla Rural)

Apart from the view that MDM was not required in Himachal there were elements in many conversations that alluded to its impact on teaching. Preeti, in Shimla Rural, was another who specifically mentioned the time required from teachers in overseeing the MDM program. The mid-day meal in each school is supposed to be organised by either

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198 i.e. period between 1995 and 2003 when there was monthly distribution of grain.
the SMC or an external body (such as an NGO). One can imagine that if an SMC is not functioning well that teachers will feel daily pressure to ensure that the meal is provided, whereas the program guidelines intend to minimise its impact on teachers.

**Rita:** “If it was in my hands I would discontinue the program because it discourages students from concentrating on studies as their whole attention is diverted to the MDM.” (Chamba)

**Preeti:** “The biggest problem with MDM is delay in sending the funds. Funds though officially need to be provided every 3 months but most of the times they get delayed up to 6 months. Either teachers have to pool their own money till these funds are received or take the ration for the meal on credit.” (Shimla Rural)

The cashier, Ran Prasad, in Chamba was another who specifically mentioned the difficulties connected with delay in receipt of MDM funds.

The delay in the funds was explained by a senior bureaucrat in Department of Education, Himachal Pradesh this way: “Due to a high level of corruption in the MDM program, the central government has made a rule that central funds towards the program would be released only after state government has released their funds, so after the state government releases their share it takes up to three months for the funds to be provided by the central government.”

One teacher alleged theft of MDM provisions from the school:

**Preeti:** “If not properly checked often, the food material goes missing and as teachers have to supervise everything it leads to loss of teaching time.” (Shimla Rural)

and also that she was ‘expected’ to feed up to 15 children although the school received MDM entitlement for just its 9 students as the student’s younger siblings and children from the Anganwadi would also come to eat.

One teacher strenuously defended the MDM program saying that it had contributed a lot because at least students get fresh and nutritious food. He said maybe MDM was needed more in Bihar and other poorer states but we know its importance because previously we had some children in school who used to obtain food from other children’s lunch boxes because they got no food from home.

**Fazil:** “Many people in Himachal believe that MDM was not required but I personally think this is not true. MDM is a very good program for children of the labourers and others who do not earn very much especially in the urban areas. Last year there was a team of doctors who came to the school and took blood samples of the students. None of the students from the school had anaemia, be they students originating from Himachal, Nepal or Bihar” (Shimla Rural)

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199 The ‘corruption’ here was at state government level - states receiving MDM funds from the centre but then diverting that money to other purposes. The majority of MDM money comes from the central government. Getting states to commit their money to the program was seen as one way to ensure funds were spent as intended.

200 *Anganwadi* - child care centre, caters for ages 0 to 6

201 there being migrant families (from Bihar, Nepal) with children at the school.
The second area of government policy that was the source of much teacher dissatisfaction were in two aspects of the recent Right To Education Act: the instruction to schools to admit children at any time during the year rather than at set admission dates and the policy that no student should be made to repeat a class during their elementary education. All teachers interviewed had reservations about one or both of these provisions; many opposed them vehemently. Enrolling students individually as they reach school starting age rather taking in a cohort at the start of term tends to make teacher’s work more complex. The primary concern of teachers was not that their workload was increased by continuous admission but concern for the pupils disadvantaged by entering the system in this way. In a teacher centred learning environment the whole class is expected to move together through a structured progression of materials. A student who enters the class part way through the learning sequence may well be at a loss to engage with what is being presented and will certainly be disadvantaged compared to peers who began at the beginning.

Teachers connected the issue of continuous admission with another RTE directive - that students not be expelled or ‘held back’ i.e. required to repeat a grade. Again the primary focus was on the disadvantage accruing to a child who moved through school without mastering material at each grade level. Extreme examples were sometimes given to make the point - ‘imagine the student who is enrolled in grade 1 just a month before the end of the year and then must be promoted to grade 2’. The RTE act in the last sentence of section 15 states that students in such a situation ‘shall complete his studies in such a manner as may be prescribed by the appropriate government’ but nothing the researcher heard from teachers indicated any awareness of such subtleties - the RTE requirements were seen as rigid and (in these respects) counterproductive to good education.

Vandana: “RTE act not being able to fail a child is very bad. Now children just come to school to have fun. Students know they will pass in any case - why they would study?” (Kunjihar)

Relevant sections of RTE act:
15. A child shall be admitted in a school at the commencement of the academic year or within such extended period as may be prescribed:
Provided that no child shall be denied admission if such admission is sought subsequent to the extended period:
Provided further that any child admitted after the extended period shall complete his studies in such manner as may be prescribed by the appropriate Government.
16. No child admitted in a school shall be held back in any class or expelled from school till the completion of elementary education. (Ministry of Law and Justice 2009 p6)

No gender neutral wording - just “his”!
Worry about children being promoted when they had not reached what teachers believed was the required standard to cope with the next grade’s demands were widespread, often somewhat muted, though almost identical words were used by Sanjay in Shimla Rural.

Rita: “I am not happy with the latest RTE act that a child should not be failed till year 8 because this rule does not prepare the student in right way to write year 10 board examinations. If government has to comply with the rule then they should impose the same rule for year 10 and 12 because so many students commit suicide when they fail or don’t get good results.” (Chamba)

Fazil: “This Act sounds good to ears, looks good on paper but to put it in practice is very hard. Law is good from point of view of increasing enrolment in schools, we got children begging on roads (in Shimla) that could be admitted in schools (6-14 years old) and have never been to school before. But their behaviour such as beating other students, lack of interest in studies was not good for the school overall.” (Shimla Rural)

The intent of the RTE act to universalise elementary education was thought laudable, it was the implementation, through decree from those thought to have no appreciation of the realities of public education, that produced resentment - echoes of teacher response to calls for ‘innovation’ in Australia and elsewhere! This was pithily expressed:

Fazil: “Has Kapil Sibal204 ever been to a state school or how many top bureaucrats been to village schools; so how can they make policies for us?” (Shimla Rural)

Assessment Program under SSA

The part of the SSA program dealing with reform of pedagogy requires a move to some form of continuous assessment in place of the traditional type based solely on an end of course exam. The Himachal Department of Education has put considerable effort into implementing ‘ongoing assessment’ with the conduct of a large-scale information and training program for teachers, the production of guides on the new scheme and booklets to assist in record keeping as well as the requirement of Headmasters that they implement the policy and file the reports thus produced205.

Two teachers expressed their discontent about ongoing assessment:

Sanjay: “I am not happy with ongoing assessment under SSA. We know what a student knows, what he can do, what is the point in filling this book without the exams. Moreover this assessment needs to be done all over the year but we get the assessment books at the end of the year.” (Shimla Rural)

Rita: “I am concerned over the continuous assessment policy as parents are not satisfied with the grading system because they don't follow it, no matter how educated they are. It was better before when marks were clearly mentioned next to the subject”. (Chamba)

204 At that time Minister of Human Resource Development in the Union Government - the Ministry which includes school education.

205 Reform in assessment commonly accompanies curriculum reform, though sometimes we find the latter with assessment practices unchanged. SSA policies imply that continuous assessment will accompany reform in pedagogy and curriculum (as was observed in Karnataka). It was striking that in Himachal so much emphasis was placed on altering assessment while teaching practices and curriculum continued with less attention to their improvement.
Raghav: “Himachal must be doing well quantitatively but not qualitatively. Qualitatively Himachal is number one from the bottom, the amount we teach students they are not able to grasp it, no matter how hard we try”. (Shimla Rural)

**Concern about the future of state schools**
Many teachers in Himachal were concerned that state schools in Himachal might close down in the future because the ‘strength in state schools’ (student enrolment) is falling every year as many parents are opting for private schools for their children. It appeared that this was not a concern over possible threats to their employment (the perceived change being general and long term rather than local and imminent) but arising from a belief that state schools were necessary to ensure that the whole population was educated - something they currently largely achieved. This concern was all the more interesting as a large majority of the teachers interviewed sent their own children to private schools. The reason given, as for parents generally, was that the standard of English was higher in private schools. However a handful of teachers strongly voiced their opinion that the state government is achieving a lot in the way of improving state schools and that it makes no sense to send children to private schools.

(iii) **Teaching Methods**
As mentioned previously, on the days of visit to 18 schools many staff were absent - only 67 percent of teachers allotted to the schools were present. However this did not impede the process of students learning. Several arrangements were made to cover for teacher absence: combining classes, the teachers present in school dividing their time between several classes, the school headmaster/mistress taking on the role of a classroom teacher.

In every classroom observed teaching was occurring. Though the methods employed were largely those of rote learning it was not uncommon to see teachers moving around the class talking to individual students while they were completing the set tasks. In none of the classes did the researcher observe any group work, ‘student centred’ activities (such as students working through activity cards at their own pace) or class activities that involved ‘active learning’ with the use of concrete materials\(^{206}\). Most rooms, though, contained various forms of learning aids - charts, posters, painted designs on walls. Irrespective of the methods they employed to teach, teachers were reflective and many expressed a desire to improve their style of teaching.

\(^{206}\) **concrete materials** - any type of physical object (paper, clay, sticks, counters, marbles, glue, scissors, string etc) that students might use to assist learning; whether at the teacher’s suggestion or self-directed. Distinct from ‘teaching aide’ (‘learning aide’) such as a chart or poster designed with the purpose of assisting the teacher’s delivery of a lesson, or, passively to present particular information (e.g. wall map)
In no instance was a class observed without a teacher, nor were any teachers in class talking to colleagues, reading magazines or doing any other activity other than working with students.

B. Students

(i) Achievement as observed in classroom visits
Not once in all the classrooms visited did researcher come across a single student who couldn’t read, their fluency varying from excellent to mediocre. The passages were from the textbooks prescribed by the government of Himachal and thus (one would expect) familiar to the students. The researcher discouraged students from reading poems being conscious of the fact that the text might be known by heart. At times children read from the page they had been working on or a page of their choosing but the researcher also requested many students to read from a page which she chose - usually one that she considered more challenging. When students were given a choice to read from any book they always chose Hindi textbooks however on one occasion they were asked to read from their English books and, though they did so competently, their reading in Hindi was far better.

As well as finding that every child asked to read was capable of doing so the researcher never came across teachers making excuses for students e.g. saying that they are shy but otherwise can read. Teachers tended to have expectations above a student’s current level\(^{207}\) - very different from what was encountered in Rajasthan where teachers often condemned students’ capacities (‘dull’, ‘lazy’) when confronted with an individual who couldn’t read fluently (or at all). Unlike their Rajasthan counterparts, the students in Himachal, while quiet and reserved\(^{208}\), were very alert and frequently wanting to greet the researcher in English rather Hindi.

(ii) Accounts from individual girl students
Interviews were conducted with girls’ in Chamba and Solan both in schools and in the girls’ homes. Interviews were conducted across villages in one block of Chamba with two separate groups of girls as well as with a number of individuals. DISE and Pratham statistics show a significant percentage of girl students leaving school earlier than their male counterparts. Fifteen girls were interviewed in Himachal, only two of whom are still studying, with the rest having dropped out of school between grades 3 and 12. The most common time for leaving school was after passing year 8 - i.e. having completed free elementary education. In this section interviews with girls who dropped out before

\(^{207}\) reminiscent of China where teachers held high expectations of their students.

\(^{208}\) Unlike in Karnataka where students were boisterous and swarmed around one on arrival in chattering mass, or in China where there were always some very self-confident students wanting to start a conversation.
completing year 8 and those who did not pursue studies after year 8 are mentioned. The group interviews focused on why girls dropped out of school.

a. Chamba - Reasons given by girls for school drop out.

The rural area of Chamba district has the lowest literacy rate for girls in Himachal Pradesh; although it has improved from 46 percent to 60 percent in the decade to 2011, it is still below the state rural average for females of 75.3 percent (2011). The urban area of Chamba also has one of the lowest female literacy rates in the state, but at 88.6 percent (2011) it is not greatly different from the state urban average of 88.7 percent. Broad economic reasons stood out as the prime reason for girls dropping out of school - not necessarily that they needed to work to supplement family income but matters such as consideration of the costs associated with attending school or of the assistance they could provide at home. All expressed some regret at having discontinued schooling and most contemplated a possible resumption.

Priyanka, Sarika, Minty and Pinky were aged between 15 - 24 years and each had dropped out of school 2 to 7 years prior to the researcher’s discussion with them. Their families each owned between 1- 6 bighas209 of land. Each girl was responsible for doing the daily household chores and looking after their younger siblings’ needs at home when the young ones required help. Priyanka and Pinky also worked in apple orchards for 3 months a year and earned ₹9,000 in that time which they said they were saving to make jewellery for their weddings.

Apart from Sarika the family incomes for the other three girls was between ₹1,000 to ₹2,000 per annum. Each family grew maize on whatever land they had and the girls said the crops were sufficient for the family’s own use and so they did not have to purchase maize from the market.

Priyanka: “I dropped out of school in year 8 because of poverty.” (Chamba)

Sarika, also in Chamba, gave the same reason for leaving school in year 8

Priyanka’s mother added:

“I have 5 children and then higher education of Priyanka was getting expensive though I wanted my daughter to study further.” (Chamba)

Minty had no financial problems at home. Her father is a permanent construction worker with Himachal Government and her brother is studying to be an engineer.

According to Minty,

Minty: “I dropped out of school because of long distance to the school.” (Chamba).

Pinky: “I dropped out in year 3 when my sister in grade 5 dropped out.” (Chamba).

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209 Bigha - an areal unit of measurement used for land in parts of India (as well as Nepal and Bangladesh) and of greatly variable size: less than 1000 m\(^2\) to over 10,000 m\(^2\). In Himachal 5 bigha = 1 acre i.e. 1 bigha = 809 m\(^2\)
Rima (Chamba)

Rima is studying in grade 4. She is one of 3 daughters in the family and the only one still studying, her elder sisters having dropped out in grade 5. The NGO worker who teaches in Rima’s school tells the researcher that she is an extremely bright girl and that she is very keen on studying. When the researcher looked through Rima’s notebooks for Hindi and Mathematics, she saw evidence for both attributes in the pages of neat, accurate work. She read to the researcher fluently from her Hindi book.

The household was very poor, perhaps the poorest household the researcher had came across in Himachal - the parents and three daughters shared a one-room house. There was no bed, the family had improvised by sewing together used sacks on which they slept. The single room dwelling with kitchen in one corner was without electricity. Rima told the researcher that walking to and from school takes her an hour each way. She said that she is ‘taught well’ at the school.

Her parents were illiterate and own no land. The family depends on the seasonal labouring work undertaken by both mother and father - which is sometimes available and sometimes not.

Rima’s mother told the researcher that she had wanted her elder girls to keep studying but because of the financial position of the household this was not possible and added that she won’t let her youngest daughter drop out. On talking later to the NGO worker she felt that nothing was certain about Rima’s schooling and that considering the family’s situation she might drop out too - which would be very sad considering the girl’s ability and that she enjoyed studies so much.

b. Solan

Interviews were conducted in Solan district with girls from a community placed at the lowest level within the Scheduled Caste community stratification.

The four girls who were interviewed, aged 12 to 15, had dropped out of school in grades 3, 4 and 5. The girls said:

“It has been 3 or 4 years since we dropped out. We dropped out because we did not enjoy going to the school. At home we do all the household work, take animals out for grazing and watch television. Our parents wanted us to study but we dropped out.”

(Kunihar)

The teacher who accompanied the researcher during these interviews told her: “80 percent of the girls from this community studying in the primary school are engaged, even those in grade 1 & 2.” She pointed towards the girl who was just 13 years old but had physique of a grown up woman and said:
"These girls live in very small houses, when they see their parents having sex they too get interested in it. This happens generally after grade 4. So even if they are young they look much older because they start having sex at a very young age.” (Kunihar)

She said girls are married and sent to live at their in-laws after a Gauna\textsuperscript{210} ceremony when they attain a certain age (as in Rajasthan) but they get engaged much earlier.

Except for one girl who had a younger sibling studying in grade 6 the rest all had older siblings who dropped out before year 7.

C. Parents

Interviews were conducted with parents in two districts of Himachal Pradesh: Shimla and Solan - the rural families in the former were much better off than those in the latter. The interviews were conducted with groups of parents, in addition the account of one very engaged parent is given separately. The Mid Day Meal program was a topic which many parents were keen to talk about, perhaps because its operation involved them directly via its SMC implementation, as well as the tangible daily provision of food to their children and the voluble comments from teachers with whom many had close contact in small communities. Parental attitudes to the MDM program were mixed, the researcher was surprised at the number of parents who opposed the program for various reasons. The automatic promotion provision of the RTE was also something about which several parents volunteered comments - all negative. As well as listening to what parents expressed when prompted by the general request to tell the researcher about what they thought, good and bad, about their children’s schooling, she also specifically sought views on private schooling, tuition, gender discrimination and the sources of Himachal’s education success - issues which weren’t broached spontaneously.

c. Shimla

In Shimla district interviews were conducted in a prosperous village which has the river Sutlej flowing through it, making farming successful. The NGO staff told the researcher that 90 percent of the children from this village attended private schools in a small town Seoni (also called Suni) about 2 kilometres from the village. The state school in the village was attended by just 27 children from grades 1 to 5. Among the parents interviewed in this village some had their children just attending private schools, some just state schools and some had a child going to the state school and another to a private school.

This village was the native residence of one of the NGO workers and he organised visits to parents’ homes. However it was not possible to arrange visits to either the state or

\textsuperscript{210} In parts of Northern India formal marriage, betrothal, may occur at an early age but the partners continue to reside in their birth homes. “Effective marriage” - when the bride moves to cohabit with her husband - occurs after the \textit{Gauna} ceremony (Moore et al. 2009; Kesarwani et al. 2012)
private schools that their children attended in Seoni town, nor were interviews conducted with students in that town.

Ten mothers were interviewed individually and their qualifications varied: one had studied till year 7, two till year 8, six had completed year 10 or 12 while the other had a university degree.

Although the researcher had been told the village was prosperous and the village itself conveyed this impression, clearly family incomes varied. One mother explained:

Simi: “If husband and wife in the village are both doing a job together they make roughly ₹150,000 to ₹200,000 annually, business people make ₹50,000 to ₹100,000. Farmers generally grow vegetables and must be making ₹40,000 to ₹50,000. This village especially is not poor. This village is like Punjab - no shortage of water.” (Suni)

This comparative wealth made private schooling affordable to many. The researcher was told that the annual fee for sending a child to a private school in the nearby town was ₹3,000 (₹250 rupees per month) and that if parents chose to make use of the transportation provided by the school that added additional ₹3,000 rupees a year. The expense of uniforms, textbooks and stationery was additional to these amounts. There appeared to be an accepted view that sending one’s children to private rather than state school was the desirable thing to do, but there was little discussion of the reasons behind this attitude until views were probed. Comments were volunteered, though, on the difficulties private schooling created:

Gita: “It is not easy for parents to send their children to private schools and to pick and drop them. The whole family works on the farm (including women; growing wheat, cutting it and growing vegies) and they don’t employ anyone from outside.” (Suni)

and on the effect of private enrolment on the viability of the local state school. All ten women agreed that the way enrolments were decreasing in state schools might lead to their closure one day. This was expanded on by one mother, also a member of the Block Development Committee, and whose 3 girls all go to a state school:

Nitu: “Maybe not all but state schools that have shortage of students might be closed. This year in the village state school there is just one new admission in grade 6 and total number of students in grade six is just 3 or 4. So if next year there are no new admissions and the number of students being promoted from grade 5 is few, naturally school will be closed eventually. Big loss of this is going to be to the village people who want to send their children to the state schools.” (Suni)

Asked about after school tuition most parents said their children don’t go for tuitions as they help them with their schoolwork at home. Some parents said that their children go for tuitions but only for 2 to 3 months prior to the annual school examination. The cost
of sending a child for tuitions was ₹100 to ₹200 per month for primary school students and ₹400 to ₹500 a month for high school students.

(i) Solan
In Solan district interviews were conducted in several villages, with the parents interviewed being parents of the children in the local school visited. In Solan interviews were also conducted with school children (reported above), some still studying, some who had dropped out.

The School Management Committees in schools visited in the state generally seemed functional and in Solan district in particular SMCs appeared to be very active. In many schools the SMC had changed the student’s uniform after taking a decision that the one provided by the state Department wasn’t “smart” enough, and some SMCs had even employed teachers from local funds when they perceived that the number allocated by the Himachal Department of Education was inadequate. The teachers locally employed met the standards set by the Himachal Pradesh government.

Mona: “School has shortage of teachers but again SMC decided that parents should contribute money so now there are two extra teachers (working in this school for 3 years) in the school. But still if government can provide an extra teacher if would be very good.” (Kunihar)

Whether this close involvement with schools is based simply on a commitment to education or, additionally, with a concern with quality, is a matter of debate, for on one hand there was no culture of students taking private tuition, which might be taken as indicating satisfaction with state schools, but there was also a large demand for private schooling - apparently contradictory indicators of attitudes and/or satisfaction.

In Solan district not even one parent interviewed sent their children for private (after school) tuition. Parents were content with teaching at the state schools.

Mona: “My daughter doesn’t go for tuition because school has made a strong base for her. Teacher pays a lot of attention to studies of the students.” (Kunihar)

Sohan, also in Kunihar, supported this.

Har: “I would like to keep my child in this school because teachers teach well here”. (Kunihar)

Jyot: “My youngest son is in grade 1 and is very naughty and did not know anything before joining the school. He was admitted just in April and he already knows his counting because he has an excellent teacher”. (Kunihar)

(ii) Other comments from both Shimla and Solan
a. Views on private and state schooling
Attitudes towards private schools were more complex. Some parents named specific factors which caused them to favour a private school but for others it appeared that they simply believed that private schools were better, and when pressed to give reasons they

211 and operating to a different degree entirely from those in Rajasthan.
repeated some common belief rather than name a particular attribute of private schools about which they had direct knowledge. Only one parent mentioned instruction in English as a reason for preferring private school, while another gave the opposite reason for preferring state school:

Mitu: “Children in private schools seem to know more and their English is better than children in state schools.” (Suni)

As Mitu spoke Sabina voiced her agreement.

Parvati: “I would like to keep my child in this school because teachers teach well here. Moreover I want my child to know Hindi first rather than English because that is her own language and government is giving a lot of facilities in state schools.” (Kunihar)

Another state school parent commented on the professed desire for English with scepticism:

Nitu: “One of the reasons why increasing number of students are going to the private schools is to learn English language but I feel government schools today don’t lack in this respect. Most of the parents who send their children to private schools want their children to wear a tie.” (Suni)

The most common themes among those favouring private schooling revolved around issues of quality: better resources, better teachers, greater time spent teaching, students worked harder:-

Gita: “Private schools are better than state schools because in state school there are no studies going on. My younger daughter who goes to a private school is street smart and the older one going to a state school is slightly slow and lazy. Older one has no aim but younger one says she wants to be a doctor”. (Suni)

Rimi: “Children in a state school are always free but children from private schools always busy. My children get so much homework that they do not get time for anything else.” (Suni)

Among parents whose children attended state schools there were few who expressed dissatisfaction. A number explicitly said the state school was good, some said the desire for private schooling was ‘a fashion’. Most of these saw no specific failing with the state school:

Nitu: “All my three children who are daughters go to a state school. Government schools have a lot of facilities it seems it has just become a fashion to send children to private schools. Parents try to copy their neighbours, even if parents don’t have anything still they try to emulate others and send their children to private schools.” (Suni)

Mona: “I did not think of sending my two children to a private school because I and my husband passed out from this school and studies here are good.” (Kunihar)

Mitu: “Basic reason for sending my children to a state school is unemployment and lack of money. If the family had more money I would have sent my children to a private school”. (Suni)

On asking who made the decision regarding a child’s school, while answers varied, the common response was that it was not parents alone but the whole extended family that discussed the matter and agreed on a state or private school. Asked about gender
discrimination parents were strongly of the view that while it existed and affected inheritance rights, it had played no part at all in selecting a child’s school or in their continuance at school. As several girls had spoken of dropping out of school to look after younger siblings and help with household chores (affairs which they were conscious of as affecting them and not male siblings) it seems that parents thought of ‘gender discrimination’ in terms of actively preventing or discouraging girls from pursuing education while social practices that inhibited girls from completing schooling were not seen as ‘discrimination’.

b. Views on government policies: RTE and MDM  
There was general dissatisfaction with that portion of the RTE which was believed to guarantee a student’s promotion. This was succinctly expressed by one mother:

Mitu: “Not failing a child in school is wrong because there is no fear in children to study. They know they will pass even if they don’t have knowledge of the subject. Children are aware of the law and this law is making children lazy.” (Suni)

Many other parents also strongly shared similar opinions.

Regarding the MDM, parents had mixed views with a significant number wanting the program scrapped. Many of the comments echoed those of teachers, suggesting views formed following discussion in the local community as parents and teachers mingle. This was particularly the case as they touched on questions such as student distraction in anticipation of MDM, about which parents could have no direct knowledge. There were also complaints about the quality of the food:

Har & Jyot: “MDM has not helped much because when the food is being prepared children’s attention is on food. Initial program of giving ration to the students was better. It also imposes extra duties on the teacher.” (Kunihar)

Sohan & Gita: “Food provided under MDM is too spicy and always full of water. We have told school authorities so many times to provide light food but to no avail”. (Kunihar)

Not all wanted MDM abolished:

Mitu: “Though MDM is extra stress on teachers because they have to finish the paper work for the same, under MDM children get food daily and it is of good quality”. (Suni)

Other parents too supported MDM view, Sita, Mita and Ramu from Kunihar also mentioned the stress on teachers but nevertheless considered MDM desirable.

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212 Comparable comment was not obtained in Rajasthan as parents interviewed were not aware of these policies.

213 As one parent put it - Sohan: “School is like a huge family and if unhappy about anything we come and speak to the head in the school.” (Arik)

214 something which (perhaps not surprisingly in such a large program) has attracted criticism in other parts of India. At a number of schools the researcher was invited to share the MDM food and always found it to taste satisfactory as well as appearing nutritious (consisting of rice, dal and vegetable).
c. **Views on literacy**

When asked about the rapid improvement in the literacy rate in Himachal, parents attributed this to parents themselves being literate, to the value they put upon education and that teaching was actually happening in schools. A number made comments which indicated that education was not seen as just acquiring basic literacy, but that it was the basis for aspirations to complete secondary education and then proceed to skilled vocational training or a degree:

**Sohan:** “Both parents and teachers have equally contributed towards high literacy rates and education standards in Himachal. It does not happen that teachers come to school and don’t teach. If this was the case children would not get any home work.” (Kunihar)

“Parents outlook has changed too because what we did as children we don’t want that to happen to our children so we don’t ask them to do the house work but just concentrate on studies. If they are free then we ask them to watch television.” (Kunihar)

**Simi:** “Himachal is doing well in literacy because illiteracy is being slowly wiped out. Parents are literate too. Now students are aware that right after grade 12 they go for professional training, if not they go for a graduate degree. Parents are at least that much literate that they can make their children study.” (Suni)

On asking why education was valued in Himachal, some parents and teachers suggested that in the absence of further cultivable land, or of industry, there is recognition that employment for one’s children is enhanced by them gaining the marketable, transferable, skills that come with education. One mother made a comment that suggested this:

**Manju:** “People are interested in education in Himachal because there is nothing else to do.” (Suni)

On asking if she meant that there were no jobs in Himachal she said it could be seen like that.

However Drèze (1999) connects the demand for labour to a high level of women’s participation in Himachali society and sees the high level of gender equality, of which this is part, as fostering female education in the state.

(iii) **Kavita (Solan)**

One interview that stands out from all the others in Solan district was that conducted with Kavita, a mother belonging to the community placed at a lowest level within the SC stratification. The local school has 98 percent of its enrolment from this community and a long time teacher of the school, who is also a community activist, gave the researcher background information before visiting the school.

As the community is classified as severely disadvantaged, several forms of government assistance are provided. Every family in the community was provided money to build a house. The community lives in a substantial settlement with some 100 houses constructed close to one another. However families were not in favour of building
toilets within a house so toilets were constructed at one location for common use. The whole community has just one hand pump from which every family collects water for their use. The researcher noticed while walking through the community that every house she came across had a satellite dish providing a TV connection. There is an ongoing food subsidy for each family and children receive free education (including free uniform) to the end of year 8.

The researcher was informed by the teacher that students from the community generally drop out after year 5, and some even prior to that, and that only two girls (Kavita’s daughters) from the community have reached year 10. The pair is currently studying at a local high school. The teacher was of the opinion that the “government is not to be blamed here because they are providing many facilities but only four to five percent of parents take interest in their children’s education”. She thought that each family spent roughly ₹1,500 to ₹2,000 each month but that only part of that amount was gained through work. She also told the researcher that “men in each family prefer drinking and eating meat”\(^\text{215}\) each night. Preference is given to entertainment, food & drinks over education”.

Kavita was interviewed in the house of the head of the community. It was a more substantial house than others in the settlement: two bedrooms and kitchen surrounded by a big veranda. The entire house had marble flooring and was spic and span. Other houses visited in the settlement were also clean but ranged from Spartan to basic in fittings and beside the ubiquitous TV some had refrigerators and other appliances. On asking about this house, with its new sofa on which we sat, the researcher was told that the lady of the house received extra money from her brothers in Shimla as her share in an ancestral property\(^\text{216}\).

She is a woman in her 30s; well informed about government and education. Extremely articulate, she talked at length and with passion about schooling, its importance and problems. She and her husband are illiterate. They have three daughters.

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\(^{215}\) Eating meat is regarded as morally questionable (at best) in this, generally, vegetarian community. Although Indian vegetarianism has ancient origins, its prevalence in modern India varies greatly (Achaya 1994 p57). In contrast to western societies vegetarianism in India is more often associated with notions of purity than with environmentalism or animal welfare (Ruby et al. 2013). There are also caste differences in attitudes to vegetarianism (Gorringe et al. 2014).

\(^{216}\) Female inheritance - an indicator, at least a single instance, of a trend to gender equality; and in contrast to comments from other teachers given earlier that while there was no discrimination in terms of school attendance it still existed in connection with inheritance.
Kavita informed the researcher that her two elder daughters are studying in year 10 at the local state school. Her youngest daughter is illiterate and has never stepped in a school - though she encouraged her daughter to go to school but she never did.

Talking about the elder two daughters she said though she could never help them directly with their studies, she played an important role in their education as “I told my husband, ‘our daughters take interest in their studies, so I won’t be working but instead looking after them and household work.’” She said she always sits with her daughters when they are studying, just to give them company though she can’t help them with their work. She said her daughters have never taken private tuition and in fact when she suggested to them that they should, they had refused.

She said she feels proud of her daughters because children of educated parents who study alongside her daughters had failed classes but her daughters have always passed and are doing well. She said:

“My daughters have taught me and my husband to do our signatures. My husband’s signature is better than an educated person’s signature.”

She said other people in the settlement discouraged her from educating daughters but to her, “my daughters are my sons”. She said she wants to see them work with men in equal roles. She said no child from their community comes for help with schoolwork to her daughters because the other families don’t take interest in education.

D. Facilities and Government assistance
(i) Scholarships

Regarding the scholarships given to students from grade 1-5, the researcher was informed they are basically from IRDP\(^{217}\), are for BPL students and that there is the same amount for a boy or girl.

**Preeti:** “Scholarships come for students who are below poverty line; 150 rupees each. Panchayat bodies decide who will get the IRDP scholarship and to get the scholarship family needs to show the card.” (Shimla Rural)

This information was confirmed by Pankhuri and also supported by what the researcher was told by Aurnab in Kunihar.

**Manas:** “Children whose families had the IRDP certificate were given 550 rupees each from grade 3-5 and 450 rupees each in grades 1 & 2. This money was given for uniforms, notebooks and other stationery.” (Chamba)

The researcher was informed that there were scholarships of ₹20 per annum for students who had recorded 95 percent annual attendance at school.

\(^{217}\) IRDP - Integrated Rural Development Program commenced in 1978 and intended to raise poor rural families above the poverty line. A number of subsidiary schemes operated within IRDP, one providing scholarships to school students. IRDP has been much criticised for corruption and ineffectiveness (e.g. Planning Commission 1985) and was subsumed under a larger rural assistance program, Swarnjayanti Gram Swarozgar Yojana (SGSY), in 1999 (Ministry of Rural Development 2009 p7) though the components that were part of IRDG are still referred to as originating from that scheme.
No school reported any problem with scholarships.

(ii) School Facilities
Of the 18 schools visited only 2 lacked toilets, most had drinking water (though there were problems with supply in some places). No school had a library. A summary of facilities in the 18 schools visited is given in table 39:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilet</td>
<td>16</td>
</tr>
<tr>
<td>Drinking Water</td>
<td>16</td>
</tr>
<tr>
<td>Boundary Wall</td>
<td>9</td>
</tr>
<tr>
<td>Playground</td>
<td>11</td>
</tr>
<tr>
<td>Electricity</td>
<td>18</td>
</tr>
<tr>
<td>Library</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 39 Summary of facilities, HP

These facilities are listed as requirements under SSA guidelines. Though all would seem self-evidently desirable the boundary wall, playground, and even the library requirement, are not such necessities in all situations. A playground is needed for children to run around and the area of the school should be separated from the surrounding public and private space to hinder access by wandering adults and stray animals. It is also argued both, that marking the school with a boundary fence establishes it as a location of significance within the local community, and makes it a distinct place with its own rules and culture in the minds of its students. It is harder to argue for the necessity of school playground and boundary fence for a school of a dozen pupils situated in a grassy area among trees on a hillside a few hundred metres away from the small group of dwellings where the students (and teachers) live. The necessity for a separate library, as distinct from just access to a collection of books in the schoolroom, is also questionable in such locations. Not all schools lacking playgrounds, boundary walls and library were in such locations, but that some were is worth noting.

The lack of libraries, common in Himachal primary schools, is compensated to some extent by a program conducted by an NGO with the support of the Himachal Department of Education, whereby schools with at least 30 students are visited thrice a week by a teacher who reads to children and assists with their borrowing of books to take home. In other ways, too, the shortfall in facilities was seen neither as simply a fault of the government or cause for abandoning attempts at education - both of which were too often the responses in Rajasthan. In Himachal, there was often understanding of the source of the problems and attempts at local level to adapt in order that schooling could proceed as effectively as possible:
Pallavi: “School land was donated by someone and now there is not enough land to build toilets and the school can’t acquire someone else’s land. Though they have made an application they are waiting to hear back.” (Theog)

On asking how they coped with water shortage in the school, the headmaster said they get water tanks which last for a week.

Anita, Raghav & Pankhuri: “The school had acute shortage of water in summers otherwise the school has water facility. Students bring their own plate and spoon for MDM and they wash their utensils when school has water supply for half an hour.” (Shimla Rural)

On the lack of playgrounds:

Manas: “The school can be improved by providing more land but as Himachal is a hilly state there is shortage of land.” (Chamba)

In spite of some limitations in school structure and facilities schools visited in Himachal were very clean and buzzing with life. Not only were they clean but also well decorated with plants growing in many school compounds. Lack of facilities was no way an impediment to student presence in schools.

Many classrooms had educational aids, especially in the form of wall charts (pictures of fruits & vegetables, geometry shapes, modes of transport etc), and walls directly painted with educational designs. Some of the funds provided under the TLM grant had been used for painting wall designs. External school walls had designs for general student learning such as those showing grammatical rules and times tables. The classroom walls were painted depicting themes that students were studying at that particular year level - such as names of various shapes and the Hindi and English alphabets. A few schools also reported using the TLM grant for providing stationery to students. These painted walls are an example of the Building as Learning Aid (BaLA) design scheme that utilises aspects of the school building itself to assist learning e.g. with textured wall surfaces, a protractor embedded in the floor beneath an opening door (UNICEF n.d.)

Himachal Pradesh schools, a summary:
In every classroom visited, a teacher was present and the students gainfully occupied. Classrooms were generally sparse but clean and neat, most had tables and chairs but in some the students sat on the floor. There was very little student work on display in any school. Conventional learning aids such as charts and times-tables were on display in most classrooms and seen in use.

The percentage of teachers absent when schools were visited was similar to the figure in Rajasthan, but each absence was accounted for by actual attendance at a state organised

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218 Wall decorations of long standing type (times tables, maps) are generally not considered part of the BaLA schema. which employs a large collection of innovative designs, though the distinction is not rigid.
in-service activity. Unlike in Rajasthan every absence was effectively catered for within the school, generally by combining classes. Student absence was minimal on the days schools were visited - for the eleven schools where an accurate count was made 97 percent of enrolled students were in attendance. In all classes observed in the eighteen schools visited the teacher was purposefully engaged with the students. Purposeful is not necessarily effective, though clearly better than neglect. The classroom activities observed were almost entirely teacher directed - listening to the teacher, reading in unison, chanting times tables and individual tasks such as copying material and practising writing. This is all useful and one result was that all students who were asked were able to read without hesitation, though with varying degrees of fluency. Teachers interacted with individual students in the classroom, and in many cases it was apparent from later conversation that they knew details of individual students’ progress and capabilities, and, often, something of their family circumstances. The concerns teachers expressed were largely focused on education and its quality. There was worry that their absence from class would hinder students, though they considered the training days valuable. A number worried about the movement of students to private schools and though this could be based on fears for their employment if state schools closed, the comments were largely about what were considered the ill-informed reasons that led parents to pay for schooling they considered of no better quality. Another common concern was to learn a wider range of teaching skills. Though there was a degree of pride in Himachal’s achievements in primary education, it usually existed alongside a belief that it still had to ‘catch up’ with other states, Kerala often being named.

Parents and teachers at some schools agreed that the School Management Committee (SMC) worked effectively and played an important part in improving school facilities. Some SMCs had taken a wider role including employing supplementary staff and redesigning uniforms to compete with those worn at private schools, but teachers knew of no instance where an SMC had attempted to influence curriculum or teaching practices. There were other schools where the SMC was inactive and this was lamented by teachers as the body was seen as a potentially significant positive factor for the school community.

219 Loss of employment was not mentioned by any teacher when private school growth and state school consolidation were mentioned. Nor was it part of the consolidation plan outlined by the state SSA Director.  
220 An attitude exemplified by a comment from the SSA State Director. The researcher, having visited several schools after arriving from months in Rajasthan, remarked on the positive things that had struck her during those HP visits. To which the Director replied that it was nice to hear positive comments but what he really wanted to be told about was of all the things that were wrong or needed improvement.
All parents interviewed valued education highly and though there were mixed attitudes regarding private schools (for some English medium of instruction was an attraction) there was not noticeable dissatisfaction with the local state school. Two issues about which many parents had concerns were aspects of SSA, the Mid Day Meal program and the recent provisions of the Right to Education Act (RTE) that were believed to institute ‘automatic promotion’ of students irrespective of their learning achievement. The former had some support in providing food for needy students but most criticised the quality of food (and often asserted that HP didn’t have people in dire poverty) but the latter was universally condemned from fear that it would ‘lower standards’ and lead to students becoming lazy.

Students were somewhat reserved but confident in responding to questions and showed no reluctance when asked to read to the researcher. All could read, though some did not read fluently. Individual girls who were interviewed all indicated that they valued education. Those who had dropped out of school, largely for financial reasons, expressed regret at not completing school. Some had taken up the opportunity to work with Pratham, both assisting girls still in school and extending their own education.
Chapter 7  Discussion: a macro, meso and micro assessment of evidence

There is one basic criterion that must underlie all considerations of elementary education in Rajasthan and Himachal Pradesh - the quality of the education acquired by students in each state. In simple terms, the situation is troubling: very poor in Rajasthan and basic in Himachal. Following the accounts of fieldwork in those two states, this crude summary will be no surprise. The field observations were limited to a small number of schools, a selection of individuals connected with them, and for short periods of time. The discussion of the quality of the education acquired by students will draw on other sources to supplement what was observed. One term often used in considering what students have learnt is “educational outcomes” and that is frequently taken to be a matter that can be measured by a range of test scores - often for literacy and numeracy, sometimes for additional domains. As the earlier survey of “literacy” indicated, its assessment is fraught even in the best of circumstances, quite apart from the casual manner in which it is too often assessed in India. However, the intent is to also consider a broader ‘quality of education’ rather than just ‘outcomes’ measured by tests as education has a wider purpose than imparting a limited set of skills. Further, factors such as the ways in which teaching is conducted, the interest teachers show in students achievement and knowledge of their circumstances, the condition of classrooms and the availability/use of learning materials are among many which impinge on students’ test score results directly as well as affecting their confidence and attitudes to learning. A common critique of Indian schooling, quite aside from the levels of literacy and numeracy students attain, is the lack of attention to developing a range of other attributes, creativity, personal confidence and critical thinking among them:

“The test score culture in ... India, helped the rot penetrate much deeper. It reduces creativity and innovative thinking, helps increasing the dominance of mediocrity, discourages students (even professionals) to ask questions particularly if that implies asking question against higher and/or political authority. Such education, rather lack of it, does help perpetuation, if not strengthening, the feudal nature of Indian society” (Chatterjee 2012  p356).

Observation of students in classes and, importantly, conversation with students, parents and teachers will supplement the considerable data about student tests and school resources available from a number of sources.

Behind this basic situation of what is lies the more involved question of why the situation is the way it is. Here, it is hoped, that field observations and conversations will help understand why progress has been made in some areas while others remain
deficient. In this the most basic element is the apparently obvious outcome - when teachers don’t show up for work student learning must be hampered.

While absence of teacher might appear self-evidently to mitigate against learning, it should be noted that some of the earliest examples of mass literacy were achieved in places without schools (Kaestle 1985 p23), though they did have teachers - parents or tutors from religious communities. This is an example of the social dimension of literacy with contrasting cases: one community where literacy was valued (albeit to access God’s word) and assisting students to become literate was embedded in community attitudes and practices, whereas in some Rajasthan communities, though ‘education’ is valued by some parents for its utilitarian importance, there is neither social consensus on its value nor effective social arrangements in place to achieve it. Schools themselves and supporting educational infrastructure are dysfunctional in that many of the interconnected factors required for quality schooling, as shown earlier in figure 7 (page 23), are missing, weak or not working coherently. In Himachal by contrast education was widely valued as an ‘inherent good’ as well as for utilitarian reasons, with communities acting to ensure that working schools exist - at local level even by paying salaries for additional teachers and at state level (reflecting the importance placed on education by HP governments) by having a functioning education administration. A very important difference between the schools surveyed in the two states was at school level: in the outlook and motivation of teachers. Although teachers in Rajasthan had, overall, a higher level of formal qualifications than those in Himachal other factors more than compensated for this to enable higher quality schooling in the schools observed in the latter state. Teachers in Himachal generally lived in the communities in which they worked, shared the local views on the value of education and the possibility (and importance) of its achievement by the pupils in their care. Many Rajasthan teachers did not live in the area served by their schools. While they valued education for their own children, and viewed it, in abstract, as desirable, they either doubted the capacity of the pupils in their care to become educated or (in at least a few instances) wondered about the desirability of such an outcome for the continuance of the existing social order. Other factors such as delayed payment of salaries, lack of accountability regarding attendance at school and in-service training and the widespread, self-sustaining, cynicism about the job of teaching in these rural schools all

\footnote{But when ranked against other utilitarian concerns (e.g. farm labor, child minding) may not be a high priority.}
contributed to minimal effort from most Rajasthan teachers to actually attempt to educate the students in their classes.

Other researchers have reported on these ills, some have been involved with trials that attempt to remedy them. Large government programs are in place (and have existed for decades) to improve elementary education. The findings, motivations and results of these will form part of the discussion.

That the *quality* of education which students acquire should be the focus of attention might not seem strange to those used to considering the faults and virtues of the Australian (or North American or European) school systems, where the quality of schooling is regularly discussed. In Indian state schools it has just been attendance at school, especially of children from families of disadvantaged background, that has commanded most government and systemic attention. While local NGOs and parent groups have long had concern about the quality of state elementary education it has been large NGOs such as Pratham and the Azim Premji Foundation who, since about 2000, have made quality of education such an issue that governments and education bureaucracies have been forced to address it.

Attendance at school is to acquire an education, not an end in itself, and while there is vigorous debate about what constitutes quality education and how to assess it, there is no doubt that it is on the issue of quality that we judge the worthiness of schools and of school systems. This has not universally been the case in India. Though ‘consumers’ have seen education as the purpose of schooling and judged accordingly (students dropping out, parents seeking ever more prestigious private schools if they can afford them), politicians, planners, education administrators (and some researchers) have more often been concerned with educational provision. This does matter - if there are no schools there can’t be quality school education - but a single minded focus on the short term goal of provision seems, for long, to have taken most attention away from the question of what is going on in schools once they have been built. Counting classrooms, blackboards, drinking taps and toilets, even teacher numbers and enrolment, are simpler matters than assessing the quality of schooling. This is what the following discussion intends to do by picking through some of the data. In separate sections for Rajasthan and Himachal Pradesh the state wide data from various sources is followed by data from the study districts in each state. Concluding each section is a short comparison of this external data with observations from fieldwork.
**Rajasthan**

(i) State-wide

(a) *State census data*

The figure most commonly given as a simple indicator of a population's educational condition is the “literacy rate” - the percentage of the population who are “literate”. Literacy data, of varying degrees of reliability, exist for the Indian population for longer than 150 years. Since independence one regular source of data has been the decadal census. There was a minor change to way the rate was calculated, from “five years old and above” to “seven years old and above” as the basis for inclusion between 1971 and 1981; but a more fundamental issue when considering this data is that the categorisation of ‘literate’/‘non-literate’ is done by each individual’s self assessment, checked in some cases of doubt by the census enumerator conducting a very basic reading test. While being “literate” might suggest being able to read and write, and to use those skills for at least basic communication (e.g. note or letter writing) and to access information (e.g. reading signs, labels, notices), the person classed as literate in the census cannot be assumed to have those capacities.

In Rajasthan the 2011 census state-wide literacy rate of 69 percent encompasses significant variation for various groups. The geographical variation, by district, is often cited but more significant, as they are the basis of that variation, are the differing literacy rates for urban and rural areas, for social groups (SC/ST, general) and for males and females.

![Figure 19 Literacy rates for Rajasthan districts](image)
Data on all these is available from the census. Overall literacy rates for the 7+ population vary considerably across Rajasthan’s thirty-three districts. In 2011, the lowest district literacy rate was 55.7 percent and the highest 77.5 percent. As figure 19, on the previous page, shows most districts achieved improvement in the period 2001 to 2011, but the change is uneven across the districts.

The naive interpretation of changing literacy rates is that they just reflect changes in the effectiveness of schooling - in this case mostly positive. However population movement also affects district literacy rates when there are distinct groups within districts that have different literacy rates and have different tendencies to change location. As is noted below males have higher literacy rates than females and young people have higher literacy rates than previous generations. Young people often move from rural areas to find work, particularly young men. When the young men are educated this will tend to lower the literacy rate in the rural area they left. On the other hand some types of rapid development in an area create a demand for unskilled labor that cannot be filled locally leading to the migration of uneducated men from another region thus lowering the literacy rate of the district into which they move. The impact of these effects on district literacy rates requires further research.

The most recent weighted decadal change in literacy for all districts of Rajasthan was much smaller than from 1991 to 2001: 6.7 percent as compared to the previous 21.9 percent. As literacy rates rise there is less potential for further improvement. A state with a literacy rate of 60 percent can increase that measure over a decade by 20 percent whereas another state starting with a rate of 90 percent obviously cannot. A better measure of progress is the rate at which the “gap to total literacy” is closed. Consider a state with 60 percent literacy, it has a 40 percent gap to ‘total literacy’ and a decadal change to 70 percent (i.e. a gain of 10 percent) closes the gap by 25 percent. Compare this with a state where literacy increased from 90 percent to 93 percent over the same decade - the 3 percent increase closes the initial 10 percent gap by 33 percent. The raw change in literacy rates, though simple to grasp (and popular with politicians) can be misleading measures of improvement. In Rajasthan given the higher literacy rate at the beginning of the most recent a percent increase smaller than previously is expected but, unlike the national situation analysed across states, there was considerable variation in the rate at which Rajasthan districts closed the gap to total literacy. There is a tendency

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222 One would expect that family income and parental education, common influences on children’s education, would be important, but this data is not collected in the census. Parental education and income are strongly correlated with social group and the urban/rural division.
for districts with lower literacy to make greater improvement though there is considerable scatter in the data.

In every district of Rajasthan literacy is higher in urban areas than rural ones, and in every district literacy is higher for males than it is for females. This was true in 2001 and remains the case in 2011 though the change in the gender literacy gap and the rural-urban literacy gap varies greatly between districts. State-wide data for the population aged 7+ is given below in tables 43 and 44:

**Table 40 Rural & urban literacy rates (%), Rajasthan, by gender**

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2011</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>population</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rajasthan whole state</td>
<td>60.41</td>
<td>66.11</td>
<td>75.7</td>
<td>79.19</td>
</tr>
<tr>
<td>rural areas</td>
<td>55.34</td>
<td>61.44</td>
<td>72.16</td>
<td>76.16</td>
</tr>
<tr>
<td>urban areas</td>
<td>76.2</td>
<td>79.68</td>
<td>86.45</td>
<td>87.91</td>
</tr>
<tr>
<td>males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>43.85</td>
<td>52.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>change as % of 2001 gap</td>
<td>12.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>37.43</td>
<td>45.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>change as % of 2001 gap</td>
<td>17.77</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the whole state differences in literacy rates between urban and rural areas and differences in literacy between males and females are decreasing, however the double disadvantage of being a rural girl remains. Moreover the decadal decrease in the gender gap was greater in urban areas than in rural ones - in terms of literacy, females are catching up, but urban females are catching up faster; and the rural-urban gap is closing twice as fast for males as it is for females. In rural areas the average decrease in the literacy gender gap of 21 percent is a fair indication of the change in every district, for the smallest decrease was 13 percent and the largest 26 percent. In rural areas the picture is more complex: in four districts the literacy gender gap actually increased (in one by 9 percent) while the largest decrease was 17 percent.

(b) **Non-government data - ASER**

**Background on ASER and ASER data**

Since 2004 the NGO Pratham has conducted assessments of what children can actually do. Their initial Annual Status of Education Report (ASER) was published in 2005 and updated versions have been produced every year since (ASER Centre 2013). Their initial tests of reading skills have been expanded and form the basis for the much larger ASER project that now also assesses numeracy and in addition reports on school

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223 ASER as well as being an acronym is a Hindi term ( असर ) meaning “impact”.

infrastructure, facilities and teacher attendance. Pratham’s surveys differ from others in several ways: they are conducted by volunteers,\textsuperscript{224} assessment of students is conducted outside school (generally in the home) and the survey includes a structured interview with an adult from each selected family\textsuperscript{225}. Unlike the census Pratham’s intent is not to categorise as literate/illiterate but to assess a student’s literacy capabilities. Pratham’s assessment is built on the capacity to ‘climb steps on the ladder of recognition’: letters, words, sentences, paragraphs, stories and is briefly summarised in a statement about a student’s ability to read a standard school text. While the census figures show a decade on decade increase in literacy, Pratham reports a significant decline in literacy capabilities among rural students during recent years. The sample survey conducted annually by Pratham’s trained volunteers provides information at district level regarding students literacy and numeracy capabilities. Information is collected on students at each year level. The assessments use simple literacy tests of increasing complexity as well as assessing the capability to carry out simple subtraction and division. Because of the way ASER data is aggregated more can be deduced at state level than at district level. For a whole state data is given for the percentage of students at every grade level who have each capability assessed, but at district level the grade data is aggregated into two bands: grades 1 to 3 and grades 3 to 5. Thus at state level as well as having data, for example, on the percentage of students at each of grades 1 to 3 who can recognise letters there is also data on the percentage at each grade who can read a grade 1 text. But at district level the aggregation of results leads simply to presentation of the percentage in grades 1 to 3 students who can at least recognise letters. Whereas the state-wide data provides a reasonable degree of discrimination regarding capabilities, the district data does not.

\textsuperscript{224} who are trained to use detailed systematic methods
\textsuperscript{225} Details of the ASER survey methods are given in the annual reports (e.g. "About the survey" in Pratham 2012 Pp 7-39)
An example will illustrate the difference with Rajasthan data from 2010 - for the whole state:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Cannot Recognise Letter</th>
<th>Can Recognise Letter</th>
<th>Can Read a Word</th>
<th>Can Read a Grade 1 Text</th>
<th>Can Read a Grade 2 Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>47%</td>
<td>39%</td>
<td>10%</td>
<td>2%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Grade 3</td>
<td>5%</td>
<td>25%</td>
<td>34%</td>
<td>20%</td>
<td>16%</td>
</tr>
</tbody>
</table>

but for a district (Barmer in example):

grades 1 to 2 59% can at least recognise a letter

At state level knowing that 2.4 percent of grade 1 students can read a grade 2 text indicates a small group who are accomplished readers while the fact that only a further 2 percent can read the text for their grade level is not impressive - a notion consolidated on finding that two years later over 60 percent can still not read that same grade 1 text. Finding that the number who can read the grade 2 text has increased six fold confirms the picture of a cohort among which there are distinctly different literacy capabilities. No such inferences can be made about districts from the single piece of literacy data given.

**ASER data for Rajasthan**

**Table 42 State-wide ASER literacy data for Rajasthan, 2012**

<table>
<thead>
<tr>
<th>Std.</th>
<th>Std. I Text</th>
<th>Std. II Text</th>
<th>Std. III Text</th>
<th>Std. IV Text</th>
<th>Std. V Text</th>
<th>Std. VI Text</th>
<th>Std. VII Text</th>
<th>Std. VIII Text</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not even letter</td>
<td>Letter</td>
<td>Word</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 1</td>
</tr>
<tr>
<td>I</td>
<td>53.8</td>
<td>35.9</td>
<td>5.3</td>
<td>2.3</td>
<td>2.6</td>
<td>53.8</td>
<td>35.9</td>
<td>5.3</td>
</tr>
<tr>
<td>II</td>
<td>26.8</td>
<td>42.8</td>
<td>14.7</td>
<td>7.8</td>
<td>7.9</td>
<td>26.8</td>
<td>42.8</td>
<td>14.7</td>
</tr>
<tr>
<td>III</td>
<td>13.8</td>
<td>36.3</td>
<td>19.5</td>
<td>13.0</td>
<td>17.5</td>
<td>13.8</td>
<td>36.3</td>
<td>19.5</td>
</tr>
<tr>
<td>IV</td>
<td>8.2</td>
<td>23.8</td>
<td>18.8</td>
<td>19.4</td>
<td>29.9</td>
<td>8.2</td>
<td>23.8</td>
<td>18.8</td>
</tr>
<tr>
<td>V</td>
<td>4.8</td>
<td>14.4</td>
<td>14.6</td>
<td>19.4</td>
<td>46.9</td>
<td>4.8</td>
<td>14.4</td>
<td>14.6</td>
</tr>
<tr>
<td>VI</td>
<td>2.4</td>
<td>8.8</td>
<td>11.4</td>
<td>17.2</td>
<td>60.2</td>
<td>2.4</td>
<td>8.8</td>
<td>11.4</td>
</tr>
<tr>
<td>VII</td>
<td>1.3</td>
<td>5.7</td>
<td>6.7</td>
<td>16.7</td>
<td>69.6</td>
<td>1.3</td>
<td>5.7</td>
<td>6.7</td>
</tr>
<tr>
<td>VIII</td>
<td>1.3</td>
<td>3.3</td>
<td>5.6</td>
<td>12.4</td>
<td>77.5</td>
<td>1.3</td>
<td>3.3</td>
<td>5.6</td>
</tr>
</tbody>
</table>

The level of capability increases from left to right across a row.

The figure in a cell in table 42 shows the percentage of students who have that capability and lesser ones. Thus for level 1 while 2.6 percent of students are listed as being able to read a Std II text those students will also be able to read a Std I text, read words and recognise letters.

---

Data in tables 40, 41: (Pratham 2012)
Table 43 State-wide ASER numeracy data for Rajasthan, 2012

<table>
<thead>
<tr>
<th>Std.</th>
<th>Cannot recognize 1-9</th>
<th>Can recognize numbers 1-9</th>
<th>10-99</th>
<th>Can subtract</th>
<th>Can divide</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>49.6</td>
<td>37.3</td>
<td>10.8</td>
<td>1.6</td>
<td>0.7</td>
</tr>
<tr>
<td>II</td>
<td>20.3</td>
<td>47.8</td>
<td>23.0</td>
<td>6.9</td>
<td>2.0</td>
</tr>
<tr>
<td>III</td>
<td>9.3</td>
<td>42.2</td>
<td>29.8</td>
<td>13.9</td>
<td>4.8</td>
</tr>
<tr>
<td>IV</td>
<td>5.7</td>
<td>28.8</td>
<td>30.6</td>
<td>22.6</td>
<td>12.3</td>
</tr>
<tr>
<td>V</td>
<td>2.8</td>
<td>19.1</td>
<td>30.1</td>
<td>27.0</td>
<td>21.1</td>
</tr>
<tr>
<td>VI</td>
<td>1.2</td>
<td>13.4</td>
<td>26.7</td>
<td>26.0</td>
<td>32.8</td>
</tr>
<tr>
<td>VII</td>
<td>0.9</td>
<td>9.0</td>
<td>21.4</td>
<td>28.7</td>
<td>40.1</td>
</tr>
<tr>
<td>VIII</td>
<td>0.8</td>
<td>5.9</td>
<td>21.4</td>
<td>26.8</td>
<td>45.1</td>
</tr>
<tr>
<td>Total</td>
<td>12.2</td>
<td>26.6</td>
<td>24.2</td>
<td>18.5</td>
<td>18.5</td>
</tr>
</tbody>
</table>

This table is read in the same way as the literacy table 42 above.

Being able to divide is taken as a higher level capability than subtraction - the 2 percent of Std II students listed as being able to divide are be assumed also capable of subtraction (and recognising numbers).

ASER data from the last 5 years indicate a decline in Rajasthan’s students literacy and numeracy capabilities:

Table 44 Declining capabilities of Rajasthan students, Pratham data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>62</td>
<td>55.9</td>
<td>57.4</td>
<td>52.7</td>
<td>47.7</td>
<td>47.6</td>
<td>47.5</td>
<td>49.5</td>
<td>40.4</td>
<td>33.1</td>
</tr>
</tbody>
</table>

(ii) Study districts

(a) census data

The three study districts have general literacy rates (i) near the highest for the state (Jaipur, 76 percent) (ii) near the middle of the state’s rankings (Karauli, 67 percent) and (iii) near the bottom (Banswara, 57 percent).

Figures showing each district’s position in a ranking of Rajasthan’s thirty-three districts by literacy rate are given in table 45. Rank positions are given for both the whole population aged 7+ and rural females 7+ in 2001 & 2011.

Figures in table 46 giving the census literacy rates for males and females in the three study districts show the general Indian pattern of lower literacy rates in rural areas and rates which are lower for females than males.

Table 45 Census literacy, Rajasthan research districts rank in whole state

<table>
<thead>
<tr>
<th>District</th>
<th>2001</th>
<th>2011</th>
<th>2001</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banswara</td>
<td>33</td>
<td>30</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>Jaipur</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Karauli</td>
<td>9</td>
<td>14</td>
<td>8</td>
<td>13</td>
</tr>
</tbody>
</table>

227 (Pratham 2008; Pratham 2009; Pratham 2010; Pratham 2011; Pratham 2012)
Illustrating the complexity of factors affecting literacy when they are examined in detail, is that the literacy rate for urban females in Banswara (80%) is higher than for urban females in Jaipur (75%), though overall literacy is highest in Jaipur and lowest in Banswara. This is particularly surprising as the latter is classified as among the most backward districts in India (Ministry of Panchayati Raj 2009).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Banswara</td>
<td>61.5</td>
<td>70.8</td>
<td>29.22</td>
<td>43.47</td>
<td>58.75</td>
<td>68.98</td>
<td>25.05</td>
<td>40.47</td>
<td>91.51</td>
<td>92.68</td>
<td>76.59</td>
<td>80.28</td>
</tr>
<tr>
<td>Jaipur</td>
<td>82.8</td>
<td>87.27</td>
<td>55.52</td>
<td>64.63</td>
<td>78.88</td>
<td>83.63</td>
<td>43.86</td>
<td>52.07</td>
<td>86.54</td>
<td>90.43</td>
<td>67.13</td>
<td>75.82</td>
</tr>
<tr>
<td>Karauli</td>
<td>79.54</td>
<td>82.96</td>
<td>44.43</td>
<td>49.18</td>
<td>79</td>
<td>82.5</td>
<td>42.81</td>
<td>47.05</td>
<td>82.74</td>
<td>85.6</td>
<td>53.78</td>
<td>60.79</td>
</tr>
</tbody>
</table>

"gender gap" = 'male literacy rate' - 'female literacy rate'

Literacy rates rose in all districts, in both their rural and urban areas, between 2001 and 2011 and the gender gap diminished everywhere in the study districts but the extent of change varies considerably. Particularly noticeable is the very small change in the rural gender gap in Karauli - just two percent.

(b) **ASER data for the study districts**

Figures in Table 48, following page, show that during the decade there was a decline of over 70 percent in the percentage of children out of school in each of the districts. The figures measuring student achievement are more difficult to summarise. At standards I and II there was improvement in each district in the ability to read letters and words, and in the ability to recognise numbers, though at the end of the decade the figures plateau in Karauli and decline significantly in Banswara and Jaipur. At standards III to V there was a general downward trend in both the capacity to read a grade 1 text and to do subtraction in each of the districts. One might suspect a connection between declining achievement and less ‘out-of-school’ children (on the assumption that these will tend to be from socially and educationally disadvantaged groups) however the patterns of change don’t support a simple correlation.

---

Data in table 46, 47 from Census of India

Banswara 75%, Jaipur 78% and Karauli 72%
The large year to year change in some of the data (most pronounced in subtraction figures for Banswara) lead one to reflect on the reliability of the data.

**Documented student data compared to Rajasthan fieldwork observations.**

Many students in Rajasthan were very reserved, some seemed resentful of their situation, and it was sometimes difficult to ascertain from them what their school life involved, though deductions made by observing classes reinforced the dull picture that did emerge from students when conversation was commenced. These aspects of education don’t appear in the assessments of literacy or of students’ achievements. The researcher’s impromptu assessment of students’ literacy confirmed the general picture given by the ASER district data, but suggested that many students were at the lower end of the ASER category “can read letters, words or more”. While the majority of students in Jaipur schools read a short text fluently many students in the other two districts struggled to recognise letters. There is a substantial difference in capability between recognising individual letters and reading a few sentences. The state-wide ASER data for 2010, with more detailed breakdown of capabilities, show 20 percent of grade eight students have (at best) the ability to read a grade 1 text. This is credible from what was
observed. However ASER’s low “out-of school” numbers - percentage of children *not enrolled* - presents a very different picture from what was observed: nearly 60 percent of enrolled students were *not present* when visits took place.

**Himachal Pradesh**

(i) **State-wide**

(a) **State census data**

With less than 10 percent of the 2011 population in urban areas, it might be expected that literacy rates in Himachal Pradesh would be low owing to the general tendency for literacy to be lower in rural areas. However the latest census figure of 83 percent ranks the state 5th in India in terms of overall literacy. In 2011 the lowest district literacy rate was 73 percent and the highest 89 percent, a smaller spread than in Rajasthan, and, unlike Rajasthan every district in Himachal achieved considerable improvement in the past decade - as seen in figure 20 below.

Figure 20 Himachal Pradesh Districts Literacy Rates (census 2001 & 2011)

The most urban district (Shimla) did not have the highest literacy rate, nor the two most rural (Kinnaur, Lahul & Spiti) the lowest - another illustration of the caution needed with generalisations.

---

230 and two districts, Kinnaur and Lahul & Spiti, with no urban centres.
The change in literacy during the past decade was 7.3 percent, much less than the high of 21 percent achieved in the decade following the 1981 census. While this seemingly straightforward indicator of improvement continues to be widely cited, as discussed earlier, it is clearly impossible to continually achieve large changes in a state’s literacy rate as the level nears the target of total literacy. As figure 21 shows all districts but one in Himachal Pradesh closed the gap to total literacy at better than 20 percent in the past decade.

Figure 21 Himachal Districts, change in literacy rates as % of gap to total literacy

Contrary to the district pattern in Rajasthan, but similar to the long term national one, the districts in Himachal that have higher literacy rates tend to be the best in maintaining improvement.

In every district of Himachal Pradesh that includes any urban centres, the urban literacy rate in these is higher than in that district’s rural areas. This is so despite most of the urban centres being small - almost half have a population of 5000 or less (Census of India 2005). Between 2001 and 2011 literacy increased in all districts and the gap between urban and rural rates declined. In all districts, and for both urban and rural areas, female literacy was lower than that of males, though everywhere the gap narrowed during the decade, so that in 2011 the gender literacy gap in urban areas is just over 5 percent while it is still over 14 percent in rural areas.

Table 49  Rural & urban literacy rates (%), Himachal Pradesh, by gender

<table>
<thead>
<tr>
<th></th>
<th>Total population</th>
<th>males</th>
<th>females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2011</td>
<td>2001</td>
</tr>
<tr>
<td>Himachal Pradesh, whole state</td>
<td>76.48</td>
<td>82.8</td>
<td>86.35</td>
</tr>
<tr>
<td>rural areas</td>
<td>75.08</td>
<td>81.85</td>
<td>75.08</td>
</tr>
<tr>
<td>urban areas</td>
<td>88.95</td>
<td>91.1</td>
<td>92.04</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>67.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>65.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>85.03</td>
</tr>
</tbody>
</table>
As in Rajasthan the gender literacy gap is closing more quickly in urban areas than rural ones, but the decadal change is much larger than in Rajasthan, and the rural-urban difference are smaller. Whereas Rajasthan’s rural areas showed considerable variation in the way the literacy gender gap altered between 2001 and 2011 (in two it increased) the situation in Himachal Pradesh was more uniform. Just one district, the entirely rural Lahul & Spiti, had improvement of less than 10 percent and in half the districts the change was over 20 percent.

(b) State ASER data (2012)

The same remarks are relevant as those made in introducing the ASER data for Rajasthan: as a means of assessing capabilities the information is detailed at state-wide level but too broadly aggregated to be very useful at district level.

Table 50 Rural-urban and male-female literacy gaps, Himachal Pradesh

<table>
<thead>
<tr>
<th></th>
<th>gender gap</th>
<th>% change in 2001 gap</th>
<th>rural-urban gap</th>
<th>% change in 2001 gap</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2011</td>
<td></td>
<td>2001</td>
</tr>
<tr>
<td>rural areas</td>
<td>18.83</td>
<td>14.43</td>
<td>23.37</td>
<td>males</td>
</tr>
<tr>
<td>urban areas</td>
<td>7.01</td>
<td>5.05</td>
<td>27.96</td>
<td>females</td>
</tr>
</tbody>
</table>

Table 51 State-wide ASER literacy data for Himachal Pradesh, 2012

<table>
<thead>
<tr>
<th>Std.</th>
<th>Not even letter</th>
<th>Letter</th>
<th>Word</th>
<th>Level 1 (Std 1 Text)</th>
<th>Level 2 (Std II Text)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>13.6</td>
<td>45.6</td>
<td>25.4</td>
<td>9.6</td>
<td>5.8</td>
</tr>
<tr>
<td>II</td>
<td>7.3</td>
<td>26.4</td>
<td>27.5</td>
<td>18.6</td>
<td>20.3</td>
</tr>
<tr>
<td>III</td>
<td>3.5</td>
<td>13.8</td>
<td>16.2</td>
<td>27.8</td>
<td>38.7</td>
</tr>
<tr>
<td>IV</td>
<td>2.6</td>
<td>6.6</td>
<td>9.8</td>
<td>26.1</td>
<td>54.8</td>
</tr>
<tr>
<td>V</td>
<td>0.8</td>
<td>3.8</td>
<td>6.0</td>
<td>16.6</td>
<td>72.8</td>
</tr>
<tr>
<td>VI</td>
<td>0.4</td>
<td>3.4</td>
<td>3.3</td>
<td>14.2</td>
<td>78.8</td>
</tr>
<tr>
<td>VII</td>
<td>0.4</td>
<td>2.3</td>
<td>1.8</td>
<td>6.7</td>
<td>88.9</td>
</tr>
<tr>
<td>VIII</td>
<td>0.2</td>
<td>2.2</td>
<td>0.8</td>
<td>6.8</td>
<td>90.1</td>
</tr>
</tbody>
</table>

The level of capability increases from left to right across a row. The figure in a cell of table 51 shows the percentage of students who have that capability and lesser ones. Thus for standard 1 while 5.8 percent of students are listed as being able to read a Std II text those students will also be able to read a Std I text, read words and recognise letters. The figure shown in a cell is the percentage of students with a maximum capability given for that column.
This table is read in the same way as literacy table 51 above. Being able to divide is taken as a higher level capability than subtraction - the 4.7 percent of standard II students listed as being able to divide are assumed also capable of subtraction (and recognising numbers).

(ii) Study districts

(a) census data

The literacy rankings within Himachal Pradesh for the three districts in which research was conducted are shown in table 53 at right.

Table 54 shows that although literacy rates are high for both males and females in all three districts in urban areas, female rural literacy rates are distinctly lower, markedly so in Chamba.

Table 54 Urban-rural and male-female literacy rates (%) for Himachal Pradesh research districts

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamba</td>
<td>76.41</td>
<td>48.85</td>
<td>74.86</td>
<td>62.14</td>
<td>93.56</td>
<td>84.81</td>
</tr>
<tr>
<td>Shimla</td>
<td>87.19</td>
<td>70.07</td>
<td>84.89</td>
<td>73.28</td>
<td>93.82</td>
<td>88.95</td>
</tr>
<tr>
<td>Solan</td>
<td>84.76</td>
<td>66.89</td>
<td>83.07</td>
<td>75.97</td>
<td>90.85</td>
<td>83.17</td>
</tr>
</tbody>
</table>

Compared to the districts studied in Rajasthan literacy rates in these Himachal districts are distinctly higher and very noticeable is the much greater decadal decrease in the literacy gender gap in rural areas of study districts in Himachal (table 55 on following page) compared to those in Rajasthan: 14 - 23 percent in Himachal compared to 2 - 15 percent in Rajasthan.

---

231 Schools were visited, students, teachers and parents interviewed in Chamba, Shimla and Solan.
As with the Rajasthan data the large variation year-on-year for some attributes raises concern about reliability (e.g. ‘numbers’ from 2006 to 2007: Solan 68% to 91%, Chamba 57% to 89%). Accepting the data the overall situation is distinctly different from that conveyed by the ASER figures for Rajasthan. Here children are enrolled, capabilities are much better, there is a lower rate of enrollment in private schools and, from the limited data, less use of private tuition.

Table 55 Urban and rural literacy gender gaps for Himachal Pradesh research districts

<table>
<thead>
<tr>
<th>District</th>
<th>2001 literacy rate (%)</th>
<th>Gender gap</th>
<th>Change as % of 2001</th>
<th>2011 literacy rate (%)</th>
<th>Gender gap</th>
<th>Change as % of 2001</th>
<th>Urban gender gap</th>
<th>Change as % of 2001</th>
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<tr>
<td>Chamba</td>
<td>62.91</td>
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<td>19.99</td>
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<td>Shimla</td>
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<td>17.12</td>
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<td>24.47</td>
<td>19.96</td>
<td>15.96</td>
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<td>Solan</td>
<td>76.57</td>
<td>85.02</td>
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<td>13.17</td>
<td>26.30</td>
<td>19.12</td>
<td>14.52</td>
<td>24.06</td>
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Table 56 ASER data for the Himachal Pradesh research districts

<table>
<thead>
<tr>
<th>District</th>
<th>Out of School</th>
<th>Private School</th>
<th>% Std I &amp; II students who CAN</th>
<th>% Std III - V students who CAN</th>
<th>% Children (6-14) out of school</th>
<th>% Children (6-14) in pvt. School</th>
<th>read letters, words or more</th>
<th>recognise numbers (1-9) or more</th>
<th>read Level 1 (Std 1) text or more</th>
<th>do Subtraction or more</th>
<th>Std IV - VIII having private tuition</th>
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<tbody>
<tr>
<td>Chamba</td>
<td>2012</td>
<td>2.6</td>
<td>12.9</td>
<td>78.2</td>
<td>84.9</td>
<td>64.7</td>
<td>52.5</td>
<td>77.7</td>
<td>71.7</td>
<td>8.0</td>
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<td>2011</td>
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<td>10.6</td>
<td>88.8</td>
<td>90.3</td>
<td>77.7</td>
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<td>92.4</td>
<td>94.7</td>
<td>86.0</td>
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<tr>
<td></td>
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<td>0.7</td>
<td>21.8</td>
<td>79.2</td>
<td>68.5</td>
<td>79.8</td>
<td>77.2</td>
<td>8.0</td>
<td>76.3</td>
<td>1.0</td>
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</tr>
</tbody>
</table>
**Documented student data compared to Himachal Pradesh fieldwork observations.**

The ASER percentage of ‘out-of-school’ children in Himachal is markedly lower than for the research districts in Rajasthan and has also declined significantly during the past five years. Much more significant however is that the students enrolled in Himachal were actually present when schools were visited - an absence rate of just over 2 percent compared to nearly 60 percent in Rajasthan. The ASER figures for the literacy category “can read letters, words or more” is significantly higher than for Rajasthan, but minimises the difference observed when working with students in the two states. Whereas many Rajasthan students struggled to recognise letters most in Himachal could in ASER’s terms “read … words or more” - they could read fluently. The more categorically detailed state-wide figures have 70 percent of grade 3 students in Himachal able to read a grade 1 text while 30 percent could do so in Rajasthan and this seems a credible ratio based on fieldwork observations. However, even in terms of what might be expected by those designing and running the schools systems - e.g. the ability of most grade 2 children to read a grade 1 text - student capabilities are poor

There can be many reasons why students absent themselves from school, including economic pressure (or necessity) to work. It may be that some parents in Rajasthan enroll their children at school in acquiescence to civic campaigns or to access benefits such as the mid-day meal, as teachers allege. But everywhere students make their own decision to skip school when they find it boring, and pointless. The enormous difference in student absence rates between Rajasthan and Himachal would seem at least partly to have this origin: though the Rajasthani girls interviewed all expressed a desire for education they also remarked on the negligent approach of their teachers - absent, making no effort. No such comments were heard from students in Himachal. Parent attitudes matter in another way - they are less likely to encourage (or compel) their son’s and daughters to attend school, irrespective of the value they place on education, if they believe the school is ineffective. A consequential factor arises from students tendency to assimilate their parent’s attitudes, thus directly affecting the likelihood of school attendance. Many parents in Rajasthan expressed grave misgivings about their local state school, often comparing it unfavourably to private schools. The Himachal parents interviewed almost all viewed their local state school in a positive way and thought the ‘fashion’ for choosing private schools misplaced (though some attributed it to a desire for schooling with English as the medium of instruction).

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232 and by PISA assessment (see later) of what year 9 students can do with their ability to read, disastrously so.
Most educators and most school systems expect other outcomes from schooling aside from acquisition of literacy and numeracy (and the content and concepts of various other subjects) - socialisation and building self confidence are usually among attributes most desired, particularly at elementary level. Higher level cognitive skills\textsuperscript{233} of the types set out by Bloom (1956) are commonly expected to be developed by students in later years\textsuperscript{234}. Visiting schools and interacting with students enabled the researcher to make qualitative judgements about socialisation and confidence. Missing from all the sets of data about literacy is information about students' attitudes, what they were doing in class, about how they responded to a visitor. There are, of course, differences between individuals in every location but Himachal students as a group were distinctly more confident than those in Rajasthan. They gave the appearance of enjoying school, were engaged in activities and, though often initially shy, were able to talk confidently and in detail about what they had been doing.

Rajasthan and Himachal Pradesh are educationally at opposite ends of a spectrum of performance encompassing all twenty eight states. Village, district, state and national factors all impinge on schooling. The fieldwork observations collect some of the factors at play at village level, as well as those affecting the local school but originating from wider contexts. The preceding sections have placed the research districts in the context of their respective states. The section that follows presents national education data from various sources in order that the performance of Rajasthan and Himachal Pradesh can be seen the national setting. The section also introduces data by which some comparisons can be made of Indian students' capabilities with those of peers internationally.

**Outcomes of Indian Elementary Education: the past sixty years**

Despite the limitations of the census discussed earlier the data from successive censuses is useful because it provides a means of tracking changes since independence and because it provides data on many subsets of the Indian population: by gender, geographically down to district level, by social grouping and via urban / rural division. As similar limitations on what can be ascribed to “literate” apply across all these subdivisions reasonable comparisons can be made. Here, then, are the seven sets of post  

\textsuperscript{233} including: critical, logical, reflective, metacognitive, and creative thinking

\textsuperscript{234} Assessing the latter is one of the aims of the international PISA and Indian NAS schemes for assessment of student capabilities, discussed in the following section on Indian schooling nationally.
independence literacy census figures for all of India and for the states of Rajasthan and Himachal Pradesh:-

Table 57 Census Literacy Rates (%) for non infant population (see footnote 242)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All India</td>
<td>18.33</td>
<td>28.30</td>
<td>34.45</td>
<td>43.57</td>
<td>52.21</td>
<td>64.84</td>
<td>72.99</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>8.50</td>
<td>18.12</td>
<td>22.57</td>
<td>30.11</td>
<td>38.55</td>
<td>60.41</td>
<td>69.33</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>7.98</td>
<td>21.3</td>
<td>31.96</td>
<td>42.48</td>
<td>63.86</td>
<td>76.48</td>
<td>82.8</td>
</tr>
</tbody>
</table>

(Planning Commission 2005 p137; Ministry of Finance 2008 table 9.4; Census of India 2012a)

As well as the large inter-state variations in literacy there is significant variation within each state at district level and for different subgroups. This was illustrated in the figures given in the previous sections dealing separately with Rajasthan and Himachal Pradesh.

Given the perpetual goal of attaining total literacy there is often great interest in the progress a state has made since the previous census, with the decadal percentage increase used as the measure of progress (and often used for competitive ranking). Thus Rajasthan’s 22 percent increase in literacy between 1991 and 2001 was lauded (e.g. Mehta 2001 "A spectacular march by Rajasthan") and the same measure is regularly cited in government documents such as the Ministry of Finance’s annual economic surveys (e.g. Ministry of Finance 2002 chapter 10). This indicator clearly has

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235 Notes:
(a) Literacy rates for 1951, 1961 and 1971 Censuses relate to population aged five years and above. The rates for the 1981, 1991 and 2001 Censuses relate to the population aged seven years and above.
(b) Himachal Pradesh has existed as a separate state since 25 Jan 1971. Figures for prior years are those compiled by the Planning Commission based on the former Union Territory of Himachal Pradesh and districts of Punjab that together now make up the current state.
236 this has been an objective given in every five year plan since independence.
limitations in assessing relative progress as, say, a 20 percent increase is possible for a state with low literacy but numerically impossible for a state such as Kerala where literacy is already over 90 percent. Other factors being equivalent in the effort to promote literacy we would expect percentage increases to be inversely related to a state’s existing literacy rate; and this is what is seen for the decadal change between the census of 2001 and that of 2011 as shown in the scatter-plot and trendline in figure 23.

As discussed in connection with literacy in Rajasthan the rate at which the “gap to total literacy” is closed is a better measure of progress than the raw percent change in rate. By this measure the progress of the Indian states between 2001 and 2011 is much more even as shown in figure 24 scatter-plot (with trend-line).

If, instead of just looking at the past decade, one considers the data from all states for the years since the first post-independence census of 1951 we find that large percentage changes in literacy have occurred at various times in many states but that this is poorly
related to the long term outcome as indicated by that state’s 2011 literacy rate. Figure 25 shows the largest decadal increase in a state’s literacy plotted against its literacy rate in 2011. A large decadal increase in literacy at some time is not any indication that the state will have achieved a high literacy rate in 2011 as seen in the scatter-plot in figure 25.

![Figure 25 Maximum decadal change in literacy for 28 states](image)

This plot shows that celebration over decadal changes, even large ones such as Mehta’s response to gains in Rajasthan, may not be justified if one is looking for significant long-term improvement. It was suggested above that a better measure of the literacy progress a state is making is the rate at its ‘gap to total literacy’ is being closed\(^{237}\). The state with the best literacy record, Kerala, with a current 94 percent literacy rate (91 percent in 2001), still has some way to go to achieve total literacy and measuring the rate at which it closes the gap is better indicator of its progress than the simple change in literacy rate.

This measure too varies from state to state and from one decade to another. Many states have at some time made large reductions in their gap to total literacy, but that is only weakly correlated with their current literacy status, as shown in the scatter-plot in figure 26 on the following page.

\(^{237}\) Given the attention paid to improving literacy, and that the census rate is usually used as its measure, it is surprising that the crude decadal change in a state’s literacy rate is usually cited as the indicator of progress (and similarly for other groups based on district, caste, gender etc) The researcher suggests that the rate at which the gap to total literacy is being closed is a more useful measure and it is odd that it doesn’t appear in the literature.
Sustained large values for “closing the gap” have more effect than occasional (or a few) very high ones. The average rate at which a state has closed its existing gap to total literacy is highly correlated with its current literacy status.

Figure 27 shows each state’s average rate of closing its then existing gap to total literacy plotted against current literacy rates. For most states there is six decades of data that have been used to calculate the average rate. Bihar has closed the gap to total literacy at an average rate of 13 percent per decade since independence, Kerala averaged almost 29 percent.

The two study states present a contrast with Himachal averaging 26 percent and Rajasthan 15 percent.

Aside from consideration of progress in improving literacy there is uncertainty as to what “census literacy” implies and so it is worth briefly presenting some other
assessments of literacy as these will cast further light on the data for Himachla Pradesh and Rajasthan.

Table 58 National literacy rates - % of ‘non-infant’ population from three GOI sources

<table>
<thead>
<tr>
<th>Year</th>
<th>Census of India *</th>
<th>National Sample Survey *</th>
<th>National Family Health Survey **</th>
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<td>65</td>
<td>62</td>
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</tr>
<tr>
<td>2001</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Census and NSS include all persons five years of age and over
** NFHS is for population aged 15 to 49 inclusive
[All figures rounded to nearest integer]

The consistency of the figures suggest their trustworthiness, with the National Family Health Survey (NFHS) value expected to be lower given the large excluded group of young, but school attending (ages 5 - 13) compared to the other (but smaller) excluded group of those aged 50+ from a generation with much lower school attendance.

However the consistency between the three sets of figures may reflect more a similarity in definitions of literacy and methods of its assessment than an accurate indication of any widespread possession of the capacities usually associated with the term. In this regard two other independent sources of data raise caution about accepting that these steadily rising literacy figures, so frequently cited, are indicators of quality education. Those from independent sources - the Program for International Student Assessment (PISA) and those from a large NGO, Pratham - paint a different picture. These are assessments of student capabilities carried out independent of any Indian Government agencies. As well as examining these there is another source of data, also assessing capability rather than the literate/illiterate dichotomy, that will be presented - that from the National Achievement Survey (NAS), and two prior variants, carried out under the auspices of the National Council of Educational Research and Training (NCERT).

The report “National Achievement Survey Class V” (National Council of Educational Research and Training 2012), as well as presenting data on the 2010 NAS survey, refers to that survey as the “third in the cycle” (National Council of Educational Research and Training 2012 page xix) - puzzling as searches for earlier versions of NAS were unsuccessful. However, in outlining the ‘history of NAS’, the text describes an intent

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from the inception of the SSA program to conduct an initial survey of student achievement, a mid-program assessment and one at the program’s conclusion. The first of these, called the Baseline Achievement Survey (BAS), was conducted from 2001 to 2004 while the second, termed the Mid-term Achievement Survey (MAS), was conducted during 2005-08. BAS and MAS are now also referred to as the initial cycles of the National Achievement Survey. Curiously, though conducted by NCERT on whose website there are well displayed links to the All India School Education Survey Reports\textsuperscript{239} as well as to an extensive collection of teaching resources and notices relating to education, the site has no reference to NAS (or BAS or MAS). The 2010 NAS is structured in a similar manner to the international PISA program (see below) and sets out to measure literacy and numeracy capabilities across a range of attributes\textsuperscript{240} rather than just present a score from a reading comprehension or arithmetic test. The components of the literacy assessments are combined and presented on a normalised scale, likewise for maths. In the manner of PISA the procedures should enable valid comparisons to be made between future successive cycles of NAS. As 2010 was the initial survey of this type (BAS and MAS being structured quite differently) the results are of no current use in assessing change in student capabilities. As few of the actual assessment items used are printed in the report\textsuperscript{241} one has little notion of the sophistication of the literacy capabilities being assessed. However, with a common format across all states, comparisons can be made between them. These, NAS, MAS and BAS data, are presented and discussed in relation to other outcome measures in a section following the summaries of the PISA and ASER assessments later in this chapter.

Two non-governmental assessments of Indian students capabilities

(i) **PISA**

In 2010 the education systems from Himachal Pradesh and Tamil Nadu became the first from India to participate in the Program for International Student Assessment (PISA). PISA began as an OECD program in 2000 to assess the performance of 15 year olds in literacy, mathematic (and from 2006 in science). Assessment of a large sample of students in each participating country has been carried out every three years since 2000.

\textsuperscript{239} containing very detailed information on student enrolment, about teachers and facilities, but nothing on student achievement; see, for example, the report on School Enrolment (National Council of Educational Research and Training n.d.).

\textsuperscript{240} for literacy, being able to: (i) Locate information (ii) Grasp ideas and interpret (iii) Infer and evaluate

\textsuperscript{241} unlike for PISA
In 2009 all 34 OECD countries as well as 31 ‘partner’ countries or economies²⁴² took part in the initial program. Ten further education systems chose to participate in the testing at a slightly later date, Himachal Pradesh and Tamil Nadu among them. Though the results from the latter ten were released separately (Walker 2011) they are based on an identical program of assessment and can thus be compared with the 65 systems in the original 2009 round of PISA²⁴³. The very brief summary here will deal only with literacy as that is the indicator, summarised above, available from India’s internal official assessments.

The OECD average on the 2009 overall reading scale was 493. China-Shanghai had the highest value in this scale: 556. The average value for Himachal Pradesh was 317 and for Tamil Nadu 337; making them equal lowest and third lowest scores from 74 education systems participating (Walker 2011 table 2.1). The reading assessment enables judgements to be made about the literacy capabilities of the students, with reading scores grouped into seven bands:

“In Himachal Pradesh-India, 11% of students are estimated to have a proficiency in reading literacy that is at or above the baseline level needed to participate effectively and productively in life. It follows that 89% of students in Himachal Pradesh-India are estimated to be below this baseline level” (Walker 2011 p17).

This baseline level is “band 1a”. To put the Indian result in perspective one should know that over 94 percent of OECD students were at band 1a or above - that is with a score of 335 or greater (Organisation for Economic Co-operation and Development 2012 p267). According to the 2011 Indian census figures Himachal Pradesh is one of the better states when ranking is based on literacy rates: of the 28 states Himachal Pradesh ranks number 5 with a literacy rate of 83.78 percent and Tamil Nadu is three places lower on 80.33 percent (Census of India 2012a). The PISA assessment is not about whether a student has met some arbitrary criteria to be classified as literate (their own say so, partially reading a simple sentence, writing their name, recognising their initials etc) but about what they are capable of doing with the literacy skills they possess. Indian census literacy rates are not a good indicator of a person’s literacy capability.

In reflecting on the PISA results one is struck by the oddity that the Census of India and other agencies have, over many decades, counted the number of literates and expressed

²⁴² ‘economies’ being discrete education systems within sub-regions of a country: e.g. Shanghai and Hong Kong within China, Miranda in Venezuela, Himachal Pradesh and Tamil Nadu in India.

²⁴³ (Organisation for Economic Co-operation and Development 2010a)
Note: 34 OECD countries, 31 initial partners plus 10 later additions give a total of 75 entities, however data are usually presented for 74. This is because Dubai, part of The United Arab Emirates (UAE), was one of the initial 31 partners and when the rest of the UAE joined as one of the ‘later ten’ Dubai’s data was merged with it and the result presented as that for the entire UAE.
satisfaction in the steadily rising numbers, but that so little attempt has been made to assess what students can do! Likewise statistics have been carefully compiled on that precursor to school achievement, enrolment, and on such factors supposedly linked to outcomes as facilities (water, toilets etc.) and inducements (mid-day meal, uniforms, etc.)²⁴⁴ but no systematic attempt has been made to assess the educational outcomes resulting from these inputs - students’ actual capabilities. Further discussion of this focus on inputs while neglecting outcomes is made later.

(ii) Pratham

Pratham’s origin and methods were introduced earlier. Like PISA, Pratham’s intent is not to categorise as literate/illiterate but to assess a student’s literacy capabilities. While the PISA assessments make use of a variety of texts and focus on the reader’s ability to make use of their literacy skills on a scale indicating increasing sophistication, Pratham’s, as described previously, use a ‘ladder’ of increasingly sophisticated literacy skills, from letters, to word to paragraphs, to assess capability. The PISA tests have a sophisticated design and are reliant on complex data processing to extract final scores; Pratham’s are simple but robust in order that they can be administered by trained volunteers in the field.

Where the census figures show a decade on decade increase in literacy, Pratham reports a significant decline in literacy capabilities among rural students during recent years:

**Table 59 Decline in literacy capabilities from Pratham data**

<table>
<thead>
<tr>
<th>Percentage of students enrolled in standard V who could not read a standard II text²⁴⁵</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>46.3</td>
<td>51.8</td>
<td>53.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage of students enrolled in standard III who could not read a standard I text</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>54.4</td>
<td>59.7</td>
<td>61.3</td>
</tr>
</tbody>
</table>

(Pratham 2012 p47)

**NAS, MAS, BAS, ASER and Census data - how do they compare?**

Using a variety of data sources one would hope to get a clearer and more reliable notion of the literacy conditions among Indian states than from one source alone. There are difficulties in attempting this. Census data, aside from the question of its reliability, is categorical (literate or not), NAS in its three variants and ASER are about degrees of competency but are measured in different ways. However, if there is a basic ‘literacy

²⁴⁴ see, for example, the archives of the seven finalised All India School Educational Surveys (ASIES) conducted by the National Council of Educational Research and Training (NCERT) at http://www.aises.nic.in/archives. These contains vast amounts of data on enrolment (by grade level, gender, rural/urban, caste), teachers, buildings, and facilities but not information about student capabilities!

²⁴⁵ Pratham (and some other sources) use ‘standard’ in place of ‘grade’. “Standard 1” = “grade 1” etc. The terminology of the source has been retained. ‘Standard’, in places, is abbreviated to “Std’
capability’ of some type underlying each, one would expect a high correlation between rankings of states on each measure even if actual figures are different. Table 60 shows such a ranking of states (1 highest) on each measure.

**Table 60 Comparison of state’s literacy rankings from various sources**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>22</td>
<td>18</td>
<td>16</td>
<td>10</td>
<td>19</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>26</td>
<td>7</td>
<td>23</td>
<td>16</td>
<td>23</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Assam</td>
<td>19</td>
<td>23</td>
<td>24</td>
<td>17</td>
<td>21</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>Bihar</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>17</td>
<td>22</td>
<td>26</td>
<td>22</td>
<td>25</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Goa</td>
<td>3</td>
<td>25</td>
<td>22</td>
<td>1</td>
<td>8</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Gujarat</td>
<td>11</td>
<td>16</td>
<td>9</td>
<td>18</td>
<td>12</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Haryana</td>
<td>14</td>
<td>10</td>
<td>17</td>
<td>11</td>
<td>23</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>5</td>
<td>21</td>
<td>6</td>
<td>3</td>
<td>20</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>25</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>16</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Jharkhand</td>
<td>27</td>
<td>7</td>
<td>19</td>
<td>22</td>
<td>22</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Karnataka</td>
<td>15</td>
<td>12</td>
<td>24</td>
<td>6</td>
<td>20</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Kerala</td>
<td>1</td>
<td>17</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>18</td>
<td>13</td>
<td>15</td>
<td>4</td>
<td>14</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Maharashtra</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Manipur</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Meghalaya</td>
<td>21</td>
<td>21</td>
<td>7</td>
<td>15</td>
<td>5</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Mizoram</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Nagaland</td>
<td>16</td>
<td>11</td>
<td>18</td>
<td>12</td>
<td>17</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Orissa</td>
<td>20</td>
<td>8</td>
<td>8</td>
<td>20</td>
<td>9</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Punjab</td>
<td>10</td>
<td>14</td>
<td>19</td>
<td>14</td>
<td>11</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>23</td>
<td>9</td>
<td>14</td>
<td>23</td>
<td>13</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>Sikkim</td>
<td>12</td>
<td>19</td>
<td>27</td>
<td>5</td>
<td>18</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>6</td>
<td>2</td>
<td>13</td>
<td>27</td>
<td>2</td>
<td>26</td>
<td>8</td>
</tr>
<tr>
<td>Tripura</td>
<td>7</td>
<td>5</td>
<td>11</td>
<td>21</td>
<td>10</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>24</td>
<td>20</td>
<td>12</td>
<td>25</td>
<td>1</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Uttrakhand</td>
<td>8</td>
<td>15</td>
<td>20</td>
<td>13</td>
<td>24</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>West Bengal</td>
<td>13</td>
<td>3</td>
<td>1</td>
<td>9</td>
<td>5</td>
<td>16</td>
<td>13</td>
</tr>
</tbody>
</table>

Two pairs of columns have been highlighted: NAS & ASER for 2010 and MAS (2005-08) & ASER (2007). As the results within each pair were obtained at much the same time one might expect comparability. This is clearly not always the case and some figures across a row that are strikingly discordant from the rest have been underlined.

As the census data (a) measures literacy rather than degree of competency and (b) is measured across the entire 7+ population one wouldn’t necessarily expect concordance

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246 All the data measuring literacy and achievement should be viewed with a degree of caution owing to the manner in which assessments are carried out: indicated both by the literates who can’t read and the disconcerting annual fluctuations in some sets of figures.
with the other measures. However, at the extremes - e.g. states with a long history of very high literacy - it would seem odd if some measures of competency found a low ranking for that state’s students. In a state with a long history of high literacy, such as Kerala, one would not expect to find a low ranking for literacy competency among the state’s students. It would be possible, of course, for such to occur if the schooling system had fallen into a condition of neglect and current students were less capable than previous generations. At the other end of the spectrum, and knowing that in societies with low literacy that condition tends to be maintained unless particular effort is made to change it, it would be odd if a state with a long history of low literacy, such as Uttar Pradesh, was ranked at the top of the list by one of the competency measures. Again, of course, it is possible that extraordinary efforts in a school system have achieved large and rapid improvement. There are no accounts in the literature outlining either neglect in Kerala or spectacular progress in Uttar Pradesh. Some figures from these two states are among those that strike one as discordant:

Table 61 Significant discrepancies between data sets ranking student achievement

<table>
<thead>
<tr>
<th>Description</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The BAS data rank Kerala as 17th while all the other data sets rank it in the top 6 (most in top 3)</td>
<td></td>
</tr>
<tr>
<td>The NAS data rank Uttar Pradesh as 1st while all other data sets rank it 20th or lower</td>
<td></td>
</tr>
<tr>
<td>The BAS and NAS rank Himachal Pradesh as respectively 21st and 20th while the other data sets rank it between 3rd and 6th</td>
<td></td>
</tr>
<tr>
<td>For Karnataka there is a glaring difference between the MAS and ASER2007 rankings of 5th and 24th respectively and also in the subsequent pair - NAS and ASER2010 with ranking of 6th and 20th respectively.</td>
<td></td>
</tr>
<tr>
<td>Tamil Nadu ranks 27th and 26th on the two ASER measures but 2nd on NAS (and BAS)</td>
<td></td>
</tr>
</tbody>
</table>

If one had thoughts of relating PISA results to Indian assessments using Tamil Nadu as the anchor the NAS ranking would indicate truly awful performance for the rest of India while the ASER ranking allows a glimmer of optimism. A similar conundrum would arise if one wished to use the Himachal Pradesh rankings as a link to PISA.

An obvious question is to ask about the causes for the discordance in these measures of literacy competency. Ignoring the possibility of outright fraud the following may all

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247 and conversely if students in a state with a long history of low literacy appeared near the top of the national ranking on some assessment.

248 Unfortunately, given the significance of results to some and known corruption in other academic matters (appointments, admissions, exams) this cannot be entirely discounted, for though there is no evidence of fraud in the surveys, it would be possible to select students of high ability, to coax students on answers, to alter results or to substitute actual results with ‘improved’ figures.
play a part:
(a) what is being assessed is different: capacity to interpret text to varying levels of sophistication in NAS, capacity simply to read a basic text in ASER
(b) the cohort being assessed is different: BAS/MAS/NAS - a sample of ‘in school’ population is chosen and assessed at school; ASER - all students in selected villages, assessed at home
(c) the target population is different: BAS/MAS/NAS - sample from whole population; ASER - sample from rural population.
(d) the sub-regions (districts, villages) of states surveyed may be different. Although ASER and the NAS surveys give figures for a whole state, the figures are based on samples. NAS sampled in just some districts in most states, ASER has sampled in most districts in each state, but in selected villages. As there can be a great deal of variation between districts (detailed earlier for Rajasthan and Himachal Pradesh) this can be a source of variation in the data from different sources and different years. During fieldwork there were instances where there was dramatic variation between adjacent villages within the same district.

Even considering all these factors it is difficult to reconcile the more extreme discordances outlined above.

The difficulties of judging peoples’ literacy capabilities from census data have been discussed earlier and ASER’s research indicates that even among the current school population many students, in many states, have only the most basic capabilities - the 2012 survey records that for rural India 5 percent of grade five students are not able to recognise a letter and 53 percent having, at best, the capacity to read a grade 1 text (Pratham 2012 p52). NAS suggests a better situation but without knowing details of the capability associated with NAS scores one isn’t sure. PISA results for Himachal Pradesh and Tamil Nadu give a dismal picture of students’ literacy in those states when compared to other countries. And, as noted earlier, while census literacy rates are rising ASER finds a recent fall in literacy capabilities (Pratham 2012 Pp1 - 5). Reliable and detailed assessment of student achievement, PISA style, is important if India is to progress from universal school enrolment to achieving quality universal education. Regular cycles of NAS, and/or PISA participation can provide this check on system performance and be part of the feedback needed for improvement. It was noted earlier that there has been a tendency to assume that getting children to school was what mattered - that education automatically followed. Though individuals have long raised
Concern about quality, this has become a significant issue, and increasingly so, in public discourse about Indian education during the past 15 years. Pratham’s initial attempts to evaluate their work in Mumbai in the late 1990’s was followed by the endeavour to measure achievement at the start of SSA with the Baseline Achievement Survey. In 2005 ASER commenced the program that has built into the annual nationwide sampling of students’ achievement. The National Achievement Survey of 2010 brought a new level of sophistication to the field and there is now wider recognition that attention should be given to outcomes - to quality education with reliable measures of its achievement, rather than just to the provision of the inputs that enable school based education to occur. One indicator of this change was the 2012 conference hosted by NCERT and SSA (and partners) titled Focusing on an Evidence-Based Education System, as well as in a number of recent papers with an emphasis on the quality of Indian school education - noticeably many written by Indian researchers and commentators. A decade and more ago all attention was on educational provision and enrolment. The change in perspective in India is part of a larger change: whereas the 2000 UN Millennium Development Goals (MDG) set as an aim that “boys and girls alike, will be able to complete a full course of primary schooling” (U. N. General Assembly 2000) the series of 2013 reports from UNESCO’s “Learning Metrics Task Force” (UNESCO 2013a; UNESCO 2013b; UNESCO 2013c) focus on the role of assessment in promoting the primary goal of quality education. The shift in attention from inputs to outcomes is captured by the aim of the task force “to catalyze a shift in the global conversation on education from a focus on access to access plus learning” (UNESCO 2013a p(i)). Speakers at the 2012 NCERT/SSA conference spoke of using achievement surveys in India (Panchapakesan 2012) as part of building a culture of program evaluation (Hay et al. 2012) and of achievement assessment as being a “health check on education” (Gannicott 2012). Indian educators and development economists have recently also given more attention to the quality of elementary education in contrast to earlier focus on educational provision and enrolment. Taku et al. (2013) use the ASER data to highlight the low achievement of many Indian students. Mehra and colleagues (2013) also use ASER data but, though their theme is ‘quality of education’, student achievement is just one element in a complex index they construct to rank the

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Later listed as “target 2.A” with the indicators:

- 2.1 Net enrolment ratio in primary education
- 2.2 Proportion of pupils starting grade 1 who reach last grade of primary
- 2.3 Literacy rate of 15-24 year-olds, women and men
  (United Nations Department of Economic and Social Affairs)
  i.e. (though with ambiguity around the third indicator) about provision rather than outcomes.
quality of education in each state - numerous inputs related to details of infrastructure and numbers of teachers and classrooms indicate that the authors have tried to blend established notions of assessing schools with current ideas (and new data) about student achievement. Shivgunde and Kulkarni (2013) give a detailed overview of recent changes in Indian school education and note that though provision of elementary education is now nationwide, with almost universal elementary enrolment, much schooling is of poor quality, and observe that public awareness of this drives the increase in private schooling. They see teachers as central to improving school quality and suggest attention to recruitment, training and the role of teachers as professionals. They make the point that ‘quality’ is linked to student retention in that students tend to leave school when they find they are not engaged and are getting no benefit from attending. Kaur and Singh (2013) see the supply of quality teachers as being “the backbone of quality education” and provide a good summary of existing problems with both the numbers of teachers and their quality but don’t suggest solutions. Other recent papers (e.g. Agnihotri 2012; Ahmed 2013; Jayanthi 2012; Ramakrishnarao 2013) of varying emphasis and detail all have the same concern with quality of outcomes: what students have achieved rather than just a concern with educational provision.

The Program Evaluation Office (PEO) of the India Government’s Planning Commission conducted an evaluation of the Sarva Shiksha Abhiyan program in 2007-08. R. Srinivasan (Principal Adviser to PEO) writes in the introduction to the resulting report:

“The quality of education imparted to children is a real major concern under SSA. It has been observed that there has been moderate improvement in Pupil-Teacher Ratio (PTR), availability of infrastructure facilities and awareness among parents regarding SSA” (Planning Commission 2010a).

The concern about the ‘quality of education’ echoes that made in the sources cited above, but there are two other features of the statement worth noting:

1. that education is *imparted* to children. This may just be the economist speaking rather than an educator, but the notion of what schooling is about that is suggested by the phrase is very different from that conveyed by the support for “constructivist learning” in NCERT documents such as the National Curriculum Framework (National Council of Educational Research and Training 2005). “Impart” connotes ‘passing on’, ‘delivery’, that is a form of *provision* - education will be made available in schools and provided to students. The *constructivist learning* of NCERT documents involves the processes occurring within classrooms: a pedagogy in which teachers establish the conditions under which students acquire an education rather than having it delivered to them.
2. a conflation of inputs and outputs. Despite the difficulties with ideas about how education occurs ‘quality of education imparted to students’ suggests concern with students capabilities. This is a proper concern with what the education system has achieved. The subsequent observations regarding infrastructure and PTR are about the quality of provision.

Logically, and in reality, one can have high quality provision (in terms of infrastructure, facilities, PTR etc) and poor outcomes in terms of student capabilities at the conclusion of schooling, conversely students in systems with poorer levels of provision may achieve very well. Quality provision is an advantage, it enhances the possibilities for education to occur but doesn’t guarantee it. When discussing “quality of education” it is important for clarity of discussion and analysis to distinguish the quality of inputs to schooling and the quality of learning that the system’s students are able to display.

This brief survey of elementary educational outcomes at national level places the situations in Rajasthan and Himachal Pradesh in the national context It also emphasises the distinctions which need to be drawn between schooling and learning, between being classified as ‘literate’ and being educated.

The ‘quality of learning’ is a theme that might be questioned in any education system but is particularly an issue in many developing countries (Pritchett et al. 2013). An important change of outlook is to move away from the simple black box model that assumes being inside a school classroom is what matters - to stop paying sole attention to inputs and give real attention to the outcomes of schooling:

“All efforts over the past few decades have been spent in ensuring access and in bringing children to school. This is true in India, in south Asia, and in much of sub-Saharan Africa. With more and more children going to school today than in the past, parents, teachers, and governments are aware that children are not doing as well as they ought to be. But in many countries there is no concrete articulation of the issue on hand or clear evidence of what the “malaise” is” (Banerji et al. 2013).

Despite the census measure of literacy not being a good measure of people’s actual capabilities it can be used as an educational indicator in making comparisons between different groups. There is no evidence that the census assessment of ‘being literate’ is biased in respect of any group, except in the general manner that self assessment of literacy tends to produce reports that are higher than reality - some who are not literate or semi-literate report as being literate. This will have the systematic effect of raising reported literacy levels among less literate groups (and thus of decreasing the literacy gap between groups, as the same effect, obviously, will not apply to those who are truly literate).

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250 One may wish to compare provisions and outcomes for the school systems of the USA and the PRC.
Why do schools function so differently - what inhibits development of higher quality education?

Seeking understanding about these questions involves examining how schools actually function and how they are perceived to function by agencies that have power over them - agencies such as the state education department, national Ministries and local governance bodies. It also involves broad agreement about what makes a high quality school (or school system): is that judged on the basis of all the facilities and resources in the school or on the whole range of capabilities students have acquired via the school’s influence. The researcher has the latter view, as did most parents, students and many teachers with whom she spoke.

Having accurate information about a school, or school system, is important to planners and administrators if actions are to be taken to improve the quality of education. That information must include a conceptual model of how schooling works as well as factual information about facilities, resources and student achievement. If there is poor understanding of the relative significance of the inputs to schooling and their inter-relationships there can be no solid basis for attempts to improve quality. Collecting data on resources, facilities, enrolment, even in minute detail, is a simple task compared to assessing student achievement, while grasping how schools function is more difficult again. India does very well at the collection of basic data (via DISE and AIES) and is beginning to systematically assess achievement through ASER and NAS. As with most school systems there is difficulty in identifying the most important factors in the working of schools that leads to quality education. Mention has been made earlier of a common tendency in Indian government sources to equate quality education with the quality of educational provision. Facilities and resources are important; which particular resources and what is done with them matter more - and knowing that is necessary to improve education. While nations’ schooling and school systems differ due to cultural, economic, political and other factors there is commonality in the ways children become educated - we all share the same basic neuro-biology. Argument continues about the best ways to organise education in schools, but much research, including that from PISA, is narrowing the bounds of what is effective and what is not. Importantly this shows that schools do make a difference to a child’s education and that what occurs in the classroom is central to that. This is contrary to earlier ideas that a child’s environment out of school (home, socio-economic status) so outweighs the influence of school that the latter is insignificant. Importantly also, research shows that schooling can be more significant for students of disadvantaged groups than from those well off -
if schooling is conducted effectively. School education can make a difference for individuals and greater difference for those with less access to education outside school.

If those planning and administering a school system are of the belief that the effects of school will be overwhelmed by ‘out of school’ factors then poor student achievement among disadvantaged sections of society may be accepted as inevitable. Schools can make a difference for students but to do so the steps leading to ‘becoming educated’ must be effective. This requires examining what happens inside the ‘black box’. The models of how schools are perceived by external agencies, outlined in chapter 1, suggested, at the extremes, two distinctly different conceptions. In one the internal working of the school is ignored while the other recognises school as a place of complex social interactions that are the heart of the process of ‘learning and education’.

When schools are viewed as simple black boxes school systems are likely to be administered factory-like with a managerial approach, issuing directives and controlling inputs in an attempt to raise the standard of students exiting the system. But if teachers in classrooms are seen as the most significant agents in a student’s education the salience of other resource inputs becomes of lower importance and planning a school’s operations is seen as something to be done locally rather than by top down direction. A PISA report *What Makes a School Successful?* observes:

“Many of the world’s best-performing education systems have moved from bureaucratic “command and control” environments towards school systems in which the people at the frontline have much more control of the way resources are used, people are deployed, the work is organised and the way in which the work gets done. They provide considerable discretion to school heads and school faculties in determining how resources are allocated, a factor which the report shows to be closely related to school performance when combined with effective accountability systems” (Organisation for Economic Co-operation and Development 2010b p4).

For this to work those at ‘the frontline” must be present, motivated and competent. They should also have common objectives - be in general agreement about the aims of schooling and have shared expectation as to what students should be able to do. The frontline extends beyond classroom teachers to others with a local role in running a school: principals, those involved in local school governance and district education support personnel. The same report continues:

“Moving away from administrative and bureaucratic control toward professional norms of control can be counterproductive if a nation does not yet have teachers and schools with the capacity to implement these policies and practices. Pushing authority down to lower levels can be as problematic if there is not agreement on what the students need to know and should be able to do” (Organisation for Economic Co-operation and Development 2010b p5).

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251 and more likely an outcome of local rather than central decisions.
As state education systems in India often seem indifferent to student achievement, and, at school level, a number of teachers in Rajasthan told the researcher explicitly that the students in their classes were not able to be educated\textsuperscript{252}, the background to the PISA conclusions is worth setting out.

The “common sense” notion that some schools make a great difference to the students who pass through them while other don’t (at least not in a positive way) was challenged by studies such as *Equality of educational opportunity*\textsuperscript{253} (Coleman 1966) and *Inequality: Reassessment of the Effect of Family and Schooling in America* (Jencks 1974) which were taken to suggest that what happened in school was not as important, at the extreme even insignificant, compared to a student’s home and social background.

Much subsequent research on the effects of schooling treated schools as analogous to factories with naïve students as raw material and educated students as output, having been transformed by the significant schooling factors which the “education production functions” of these models sought to construct (Greenwald et al. 1996 p362). This is a numerical version of the sophisticated black box model of schooling outlined in the methodology section. This is one summary of the results of this approach:

> “Quantitative research on whether schools matter has generally supported the notion that the problems of U.S. education lie outside of the schools. Some research finds that when the social backgrounds of students are taken into account, school characteristics do not seem to influence student outcomes” (Wenglinsky 2002 p2).

In viewing schools from outside and giving attention to attributes that can be measured externally, what was happening in classrooms was ignored and teachers when they appeared in the analysis did so by way of such attributes as their level of education, years of experience and amount of professional development undertaken - those easily quantified.

> “It has been relatively unusual for researchers to investigate the relations between teachers’ and students’ learning, and when they did so it has been even more unusual to find evidence that teachers’ learning influenced students’ learning” (Cohen et al. 2000 p329).

A frequent conclusion from these studies was that the effect of an individual teacher on a student’s learning was insignificant. Not that teachers didn’t matter but that what one teacher did was not significantly different from that of another; teachers were cogs in the factory that could be swapped without affecting the ‘output’. Further, the effects on student achievement of teachers per se were not seen as greatly different from those of other resource inputs which in turn “had a surprisingly small impact on achievement” (Greenwald et al. 1996 p362). In the USA, where these models of schooling were

\textsuperscript{252} and whether they articulated these attitudes, most displayed them via their neglect of attempts to teach.

\textsuperscript{253} widely referred to as “the Coleman Report”
largely developed, a large-scale daily absence of teachers from schools was not a problem but it is curious that in countries (including India) where frequent teacher absence was viewed as an impediment to education that that didn’t lead to a greater focus on what teachers are doing. If it matters that teachers are present it must be because their actions potentially have significance, which would suggest that those actions are worthy of attention as part of the matrix that impacts student learning.

Schools are complex social institutions, as indicated in the conceptual framework outlined in chapter 1. They involve distinct groups of individuals: students, teachers, parents, administrators. The relationships within groups and between groups differ and all affect the education a student receives. Ethnographic studies of schooling, such as those reviewed by Mehan (1992), describe some of these relationships at the school level but what emerges is frequently a concentration on just some of those sets of interactions - no doubt of significance, but it is not apparent that the specific relationships given attention are the crucial ones - and in any case it is difficult to apply what is learnt from such studies to a whole school system rather than a single school. A way to simplify conceptions of the schooling process in a way that is a more productive alternative to the factory model but without getting into the intricacies revealed by ethnographic studies is to concentrate on where the most significant learning occurs: in each classroom; and therefore on the manner in which teachers work. A “common sense” view of schooling among parents in India, as in Australia, the US and elsewhere, at least among those who put value on education and seek the best they can for their children, is that schools and teachers do matter. Hence the seeking of “the best schools” and complaints or compliments about individual teachers in whose classes their children are placed.

“Students and parents refer often to differences in teacher quality and act to ensure placement in classes with specific teachers. Such emphasis on teachers is largely at odds with empirical research into teacher quality. There has been no consensus on the importance of specific teacher factors, leading to the common conclusion that the existing empirical evidence does not find a strong role for teachers in the determination of academic achievement and future academic and labor market success. It may be that parents and students overstate the importance of teachers, but an alternative explanation is that measurable characteristics such as teacher experience, education, and even test scores of teachers explain little of the true variation in quality” (Rivkin et al. 2005 p419).

The alternative explanation is supported by very extensive body of research from the past two decades (Hattie 1999; 2003; 2005; 2009) that shows the crucial importance of individual teachers in affecting student achievement. Contrary to the simple black box

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254 Mehan also applies a “black box” metaphor to the manner in which schools are commonly viewed, but when he opens the box the details that gain the most attention are the diverse relationships students have with each other in the extended school environment.
model where internal school processes were ignored, either because they were thought irrelevant or because they were too complex to model, the modern consensus is that what schools do does matter, that the quality of classroom interactions is the most important ‘in-school’ factor affecting student achievement and that teachers have the key role in establishing and guiding those interactions. Commenting on the changed view Wenglinsky observed:

“A possible reason for the lack of large school effects in quantitative research is the failure of such research to capitalize on an insight from qualitative research: the central importance of the classroom practices of teachers” (Wenglinsky 2002 p2).

The new view is succinctly summarised in a PISA report:

“the quality of an education system cannot exceed the quality of its teachers and principals, since student learning is ultimately the product of what goes on in classrooms.” (Organisation for Economic Co-operation and Development 2010b p4).

and:

“.. research usually shows a weak relationship between educational resources and student performance, with more variation explained by the quality of human resources (i.e. teachers and school principals) than by material and financial resources, particularly among industrialised nations” (Organisation for Economic Co-operation and Development 2010b p50).

It is one thing to conclude that there is a ‘teacher effect’ on student achievement, quite another to pin down what are the attributes that distinguish an effective teacher from an ineffective one. The readily measurable teacher attributes often included in education production functions are, for the most part, not closely related to a teacher’s effectiveness. Weglinsky noted:

“Quantitative research neglects this dimension [classroom practice] of schooling by treating it as a "black box," not worthy of study (Mehan, 1993). Often teaching is not studied at all, and, when it is, only the characteristics of teachers that are easily measured but far removed from the classroom (such as their level of educational attainment) are included” (Wenglinsky 2002 p2).

Wenglinsky analysed a sample of over 7000 year 8 student National Assessment of Educational Progress (NAEP255) maths assessments and found that ‘teacher effects’ were at least as important as students’ socio-economic (SES) background in their effect on students’ academic achievement. The analysis was possible because students undertaking NAEP complete a questionnaire about family circumstances and their teachers complete an extensive questionnaire about their training, qualifications, experience, professional development and details about teaching practice. This is akin to deducing some aspects of what goes on within the black box second hand - without direct observation. This has the advantage of enabling a large data set to be analysed

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255 US national testing program conducted by National Center for Education Statistics (NCES) at the Institute of Education Sciences (IES) within the U.S. Department of Education (see NCES website for details: http://nces.ed.gov/ )
and of eliminating observer bias, but the disadvantage of missing aspects of classroom interactions that ethnographic (or other direct observations) may pick up.

In a similar study Rivkin and colleagues analysed the test results over successive years from some half million students in three thousand schools to conclude:

“The results reveal large differences among teachers in their impacts on achievement and show that high quality instruction throughout primary school could substantially offset disadvantages associated with low socioeconomic background. These differences among teachers are not, however, readily measured by simple characteristics of the teachers and classrooms. Consistent with prior findings, there is no evidence that a master’s degree raises teacher effectiveness. In addition, experience is not significantly related to achievement following the initial years in the profession” (Rivkin et al. 2005 p419).

Using an experimental approach Nye and colleagues conducted a long term randomised trial in which students in 79 Tennessee elementary schools (across 42 districts) were randomly assigned to large or small classes and teachers randomly assigned to classes. Gain in student achievement was measured. The variation in achievement gain ascribed to the variable ‘teacher’ was greater than that ascribed to ‘school’ or to ‘class_size’. The effect of the teacher was greater in low socio-economic status (SES) schools than in high SES schools. The attributes that influence teacher effectiveness could not be determined (i.e. we know teachers make a difference, but we don’t know what is about teachers that is responsible),

While research has shown that teachers matter, but that the commonly noted and easily measurable teacher attributes don’t, there are also well founded studies that suggest (in some instances) or demonstrate (in others), that some particular approaches to learning are more effective than other ones. Some of these effective approaches are collected under terms such as ‘hands on learning’ or ‘activity based learning’ and placed in opposition to ‘traditional teaching’, ‘teacher centred methods’ and ‘rote instruction’. The broad labels establish battlelines for often heated disputation, but tell little about the details of what is effective and what is not. Much is specific to particular aspects of particular subjects and constitutes the ‘pedagogical content knowledge’ (PCK) that a well educated teacher needs, alongside their academic domain knowledge, in order to teach effectively. If teachers are at the centre of effective education then efforts at improving education should concentrate on the teacher workforce: initial selection and training and continuing professional development. Given the specific requirements of different teachers the latter should have local input and be targeted, rather than programs based on broad ideas:

256 One of the most studied domains for PCK is in physics: There is over three decades of detailed research on the impact of specific modes of instruction on particular topics in physics, much collected at Physics Education Research Central (American Association of Physics Teachers 2013)
“Given that much of the variation in teaching effectiveness lies among individual teachers rather than among schools or countries, policies and individualised professional development programmes should target teachers, not just schools or school systems” (Organisation for Economic Co-operation and Development 2010b p31).

A major impetus in establishing the PISA project was the hope that in comparing performance of students in different school systems and attempting to correlate this with data on characteristics of schools and school systems, as well as with demographic information on students, that patterns might emerge that would help to differentiate high performing school systems from others. Classroom interactions are not examined - conclusions are drawn about the performance of schools and school systems, not about teachers. Other research, as cited above, clearly show that teachers matter, that there are more effective and less effective teachers, and establishes some of the factors that distinguish the two. Four key PISA findings about effective school systems are that they (i) are built in communities valuing education, (ii) set clear and ambitious standards, (iii) are staffed by high quality teachers and principals, and (iv) are designed to educate all (Organisation for Economic Co-operation and Development 2010b p4).

The PISA documents also comment on the policies common to high performance education systems:

“To achieve this, they invest educational resources where they can make the greatest difference, they attract the most talented teachers into the most challenging classrooms, and they establish effective spending choices that prioritise the quality of teachers. These are, of course, not independently conceived and executed policies. They need to be aligned across all aspects of the system, they need to be coherent over sustained periods of time, and they need to be consistently implemented” (emphasis added) (Organisation for Economic Co-operation and Development 2010b p4).

Effective teachers, as well as sharing the high value put on education and maintaining clear and ambitious standards needs knowledge and skills to assist students to achieve their best. This requires teachers to have deep knowledge of what they are teaching, and of how to teach it and this condition to be sustained by well targeted professional development.

The connection with Indian school education, Himachal Pradesh and Rajasthan in particular

Some view the state of Indian public schooling as so dire and its likelihood of reform so low that they essentially advocate letting the existing system wither while a new system based on local governance is built up. Two World Bank economists write:
“We argue that perhaps a thorough-going devolution of education to the Panchayati Raj Institutions (PRI), as envisaged in the constitutional amendments, provides an opportunity—quite possibly the only politically feasible way to sail out of this perfect storm—to completely restructure the entire system of compensation to be consistent with an accountable and performance oriented public sector” (Pritchett et al. 2007 p 127).

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The ‘perfect storm’ they invoke to justify the drastic action is the combination of low student achievement, a high teacher absence rate and low activity level, low public esteem of teachers, high teacher salaries and a continuing drift of students to private schools. Teachers are the villains in these authors’ account: overpaid, unaccountable, lazy, incompetent and essentially only occupying teaching positions as a sinecure for the whole of their working lives. Government school teachers, that is - for teachers in private schools, paid less, with less secure employment, will, in the authors’ scheme, obtain better results. The figures on student achievement, teacher absence and public esteem that begin the paper are chosen to paint a grim picture, but at least the authors acknowledge the central importance of teachers in the school system. Whether their terminal diagnosis is correct and the long term remedy either feasible or likely to work are different questions.

The assessment that Pritchett and Murgai make about the current state of public schooling in India is fundamentally that the system is dysfunctional. Fieldwork supports that assessment in regards to what was observed in Rajasthan, but it is not an accurate summary of what was seen in Himachal, and far from the case for the, limited, observations of schools around Bangalore, though in both the latter states there was much that could be done to improve education. There are differences between schools in all three states and the differences are significant if we are to try and examine what accounts for a system’s under performance. The differences in student achievement in Himachal and Rajasthan have been outlined above. Major differences in what is occurring in classrooms and in teacher and parent attitudes in the two states were found during fieldwork and recorded in the chapters on each state. Even on a subject where figures suggest the same deficiency, the much noted issue of teacher absence, fieldwork revealed important differences in both the reasons for absence and the ways in which

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The same authors in discussing how to improve the quality of education in ‘developing countries’ are strangely silent on important detail and miss a bigger picture. Thus in “Schooling is not education!” the authors write: “Amanda Beatty and Lant Pritchett (2012) estimate that at current rates of progress, it would take a century for developing countries to reach current OECD learning levels measured by national PISA scores” (Pritchett et al. 2013 p25). This ignores the ‘detail’ of the PISA rankings of Vietnam and Shanghai and the larger picture of the top PISA places moving from developed Western nations to those in East Asia. It may not be the case that being “underdeveloped” has itself been the significant factor affecting quality of schooling but something(s) about the value placed on education, and pragmatic use of resources to improve it, that account for the changes in educational performance, and its pace, in both developed and underdeveloped countries.

[ another ‘detail’ in the same paper is that figure 4 on page 7, gives PISA scores as TIMSS results ]
schools coped with it. The similar teacher absence rate (of about 30 percent) observed in both Rajasthan and Himachal might be taken as an indicator of the same problem in each, however the causes of absence, - planned rotation of ‘days-at-work’, family business etc in one place as against attendance at training session in the other - suggest not a sameness but a fundamental difference. That conclusion is reinforced when comparing the consequences of teacher absence - unsupervised groups of students in one instance, reorganised (larger) classes being taught in the other. It is not a question of facilities or general resources that account for the difference, but attributes of the teachers, specifically the six qualities needed for effective teaching detailed in chapter 1 that provide a framework to understand the difference. Viewing teachers as active agents bringing particular qualities to school education is a step towards improvement; viewing teachers, amorphously, as just another input to schools is not.

A further point to be made about the quality of education and school system performance is that a record of change is important: ongoing low achievement of a system’s pupils indicates a system that is not functioning, as deficiencies are not being addressed, whereas year by year improvement from a system’s students, even though current measured achievement is mediocre, suggests that existing deficiencies are being remedied. The latter school system might be regarded, at least on one measure, as being an effective one even while present levels of student achievement are low by international standards.

Reference has been made earlier to the much greater attention given in India to the provision of education than to its outcomes. Such focus is a understandable, even a necessity, when schools simply don’t exist, but becomes an impediment to quality if, through being taken as the long standing prime purpose of an education system, it becomes entrenched as such in thought and in stated goals. SSA, though it incorporates the aim of changing pedagogy, is heavily focused on resource provision - human, infrastructure and facilities. The very extensive assembling of data to track the progress of SSA via DISE includes no element recording student achievement\(^{259}\). NCERT’s regular surveys of Indian education likewise provide an enormous amount of detail about the state of buildings, facilities, the numbers of teachers and students along with their social attributes; but nothing on student achievement. This data is useful in showing whether planning goals have been met but is not so useful in improving the

\(^{258}\) Presence, effort, content knowledge, pedagogical content, teaching skills, expectations.

\(^{259}\) the literacy rates in DISE are those obtained from the national Census.
quality of education. Some of the assumptions underlying planning goals could be checked using this data. A major goal (now largely achieved) has been to attain 100 percent enrolment of the appropriate age group in elementary school and then to retain them in school to upper primary and secondary level - on which, the latter points, there is some way still to go. Some groups, in particular girls and SC/ST students, have been the targets of actions aimed at meeting those goals. Assumptions about what motivates student/parent behaviour underlies those actions. Some examples of these are:

(a) it is assumed that increasing the number of female teachers will improve girls enrolment
(b) it is assumed that increasing the number of SC/ST teachers will improve SC/ST enrolment
(c) it is assumed that providing separate girls toilets will improve girls enrolment

Each of these, like many other assumptions, could be tested from the data, but this is rarely done. In the case of female teachers and girls enrolment, figures were presented earlier to show that such a connection didn’t exist in Himachal or Rajasthan. The same observation is made in the Planning Commission’s evaluation of SSA:

“The enrolment ratio of girls in the educationally backward blocks in the selected samples too increased specifically in Jalore, Rajasthan (26%) and 14% in Kasba Nagar, Bihar. Improvement in girls’ enrolment was not due to favourable female teacher ratios in schools. Girls enrolment improved in schools in Assam, Bihar, Haryana, Rajasthan and West Bengal despite lower ratios of female teachers” (Planning Commission 2010a page vi).

Continuing to provide resources to support factors that are assumed linked to desired outcomes is wasteful and ineffective when the linkage between factor and outcome doesn’t exist. Potential factors influencing education outcomes are many and interlinked, as indicated by the conceptual model on Figure 8. Such models are a starting point - rather than operate on assumptions (or default to a simple black box when faced with complexity) it is desirable to use data to test the assumptions. The data may need to be collected fresh, but sometimes it exists unused. Conceptual models such as that illustrated in Figure 8 can be daunting, the very complexity may deter engagement, but some factors are more significant than others and the researcher has placed what they believe more significant at the centre with less significant and secondary factors to the periphery. Hattie, via meta-analysis of some 50,000 research articles in education, has identified the factors buried in that complex web that are most significant in affecting student achievement (Hattie 1999; 2009).

Improving the education system’s performance requires the intent to do so, knowledge of what to do and the resources to implement change. But underlying those is the need for reliable and relevant information about the current state of the system and its

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260 Each of these actions may well be desirable for consequences other than the effect on enrolment.
Collecting data about outcomes is a fundamental way of assessing performance, but there are traps that can get in the way of the collected data being used for effective feedback to generate continual improvement. To name just three points:

(i) the data collected may not be germane to performance
(ii) the data collected may be inaccurate, incomplete or corrupted
(iii) the data may not be put to use - e.g. if there is not the will to confront poor performance or if there is a disconnect between the bodies doing the data collection and those running the system.

DISE gathers large volumes of data and, with its procedures to check integrity, the information seems generally reliable. This could be the basis for effective steps to improve school education but is hindered by two main limitations. The first is to do with the aims of SSA, on what is being checked and hence the type of data collected, the other with the sharing of responsibility for schooling between Union, state and local governments. While the ultimate aim of SSA might be assumed to be high quality and universal schooling, the immediate subsidiary aims in getting to that situation are to provide universal access (a school within 1 km of every home) and achieve universal enrolment (via parental obligation under RTE, incentives, and school ‘attractiveness’). DISE data collection is focused on the subsidiary aims, and hence on checking whether the specific immediate SSA objectives have been met rather than trying to assess whether the underlying purpose of schooling (literacy, numeracy, critical thinking, self confidence etc) are also being achieved. Hence while there are detailed annual statistics about physical infrastructure and characteristics of school employees information about even that most basic item regarding student capability, literacy, is not assessed annually - DISE just reports the data from the most recent decadal national census. We can find whether students have attended school but not what they have gained from doing so. Detailed, publicly available, information on student achievement is important. If it is not available we don’t know whether schools are effective, if it exists but is not publicly available it may have no impact.

The ASER surveys give a modicum of information about student achievement, they are not nationwide, the measures of achievement are rather simplistic, don’t permit

\[261\text{ i.e. quite explicitly in physical matters such as drink water, toilets, blackboards etc and less directly in matters affecting students ‘classroom experience’ - student/teacher ratios, TLM grant, expectations re pedagogy}\
\[262\text{ age, gender, caste, length of service, qualifications, etc}\
\[263\text{ by necessity simple measures are needed when volunteers have to be trained each year to administer the assessments and when the resources available are limited. Given these circumstances what has been done by Pratham is most impressive as well as being extremely valuable - directly and in prompting others to action.}\

precise conclusions to be drawn about change and are less informative at local compared to state level. Despite these reservations the ASER data has been invaluable in providing large scale information about student achievement. When started it simply filled a void. The availability of ASER data has also raised awareness of the level of achievement of India’s school students, and that in turn has generated greater discussion in newspapers as well as in academic journals. The National Achievement Survey of 2010 brought another level of sophistication to assessing what students can do. The single survey is of limited use but if carried out regularly can provide some of the information that is essential if feedback from present performance is to be used in improving the school system. It would be desirable to correlate NAS information on achievement with that from DISE on provision, and to benchmark NAS assessments to international ones such as PISA, TIMSS and PIRLS.

Fieldwork observations confirmed that provision of resources as detailed by DISE, and documented in ASER, has occurred. Though there are some deficiencies (toilets, water supply), themselves noted by DISE and ASER, essential resources - buildings, teachers, financial grants - are in place. The resource provision aspect of SSA had been substantially achieved in the districts where fieldwork took place. However there was a striking difference in how the allocated resources were utilised in the Rajasthan districts compared to those in Himachal. Rajasthan buildings were poorly maintained, those in Himachal well looked after; teachers in Himachal were engaged with their classes, those in Rajasthan were not, TLM grants in Himachal had been used for educational purposes, most of those in Rajasthan had not (some could not be accounted for). In Rajasthan there were instances of uncoordinated resource provision (computers supplied to schools lacking electrical supply) and of supplied facilities becoming inoperative. No such instances were found in Himachal, instead deficiencies were remedied by local action - as when water was trucked in to back up an unreliable local supply.

The nation wide, centralised, collection of data, such as in DISE and AIES, fits readily with the ‘administrative and bureaucratic control’ mode of running an education system - something which the PISA report quoted viewed as outmoded, though it don’t

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264 individual students are not tracked year by year and the same set of villages is not sampled each survey. Across a whole state these effects likely average out, but at district level there can be great variation even between villages that are geographically close - such was observed in fieldwork - and hence the possibility of variation between surveys from that cause.

265 for pertinent comments on this see Panchapakesan’s presentation to the SSA – Technical Cooperation Fund End of Project Conference (Panchapakesan 2012).

266 Program for International Student Assessment, Trends in International Maths and Science Study, Progress in International Reading Literacy Study.
necessitate that. A standard system of data collection, as well as being efficient, provides a commonality that enables fair comparisons to be made across groups and locations - valuable in any type of administrative system. The PISA suggestion, with its proviso as to the capacities of those involved, is that authority to act on the basis of collected performance information should lie with local professionals rather than with administrators at a higher level in the system hierarchy. Where such capacity does not exist attention should be given to building it - as a large degree of local autonomy is seen as a pre-requisite to establishing high performing schools.

Information on student performance is crucial to assessing and improving schooling, whether the impetus for that is to come downward through a managerial chain or upward via the actions of local governance. Even with the relevant information on student performance, and the will to take it as guidance in seeking improvement, there are potential pitfalls to that occurring for both ‘top down’ and ‘bottom up’ modes of governance. As well as the ‘will to act’ individuals need the knowledge to determine what changes are needed and the capabilities to implement them. The PISA report notes that in a decentralised system this inevitably involves a large number of individuals at local level. This is a significant issue when examining the experience of local school governance in India.

PISA’s endorsement of the observation that successful education systems have devolved authority to school level is tied to another observation of successful systems - that they recognise that teachers, via the interactions they establish in classrooms, are by far the most important school related factor affecting student achievement. Knowing who does this well, who needs assistance (or removal) and just what forms of help and intervention will be productive are questions far more likely to be known to individuals working in schools than to some remote administrator. Local empowerment is no guarantee of improvement - where school level personnel are disinterested in students’ education both the provision of information and teachers’ possible ability to make use of it, are irrelevant. The tailored assistance that all teachers can use to improve their effectiveness, and the collaborative work between teachers in schools that can help the whole group, may not happen even if the school environment is conducive, but it is a possibility and in some systems the norm for each school. By contrast it is virtually impossible to envisage specific plans for PD for individual teachers, and plans for group collaboration at each school, being successfully managed from afar - even with the best intentions of those planning the professional development.
Teachers in the schools visited in Rajasthan were aware of the poor achievement levels of their students but there was no evidence of local initiatives to alter school or teacher performance. It was accepted that in-service training was the responsibility of district and state administrators and that what was provided was of no relevance to what they did in classrooms. Pratham personnel worked in some schools partly with the aim of demonstrating different teaching methods but the schools’ own teachers ignored what was being done.

Himachal teachers were aware of improvement in literacy and numeracy in the state but not of differences in their students’ achievement levels compared to those of students in other places, except as measured by the state-wide literacy rate and the goal of ‘total literacy’. There was interest in modifying their teaching methods; however, though sharing of ideas was apparent in discussion, in-service training was accepted as something largely organised external to the school. In-service training in Himachal was centrally organised, with some local input in its design. Teachers said they found it useful, but neither this, nor the reported school collaborations between Pratham personnel and teachers, appeared to have significantly altered classroom practices. In discussions with Himachal teachers there was openness to new ideas and a desire to improve education, however the researcher didn’t detect any notion that the teachers themselves might initiate pedagogical change an/or curriculum reform. This was one element that was significantly different compared to discussions with teachers in schools around Bangalore.

In a society with dual private/public education systems there can be a second problem with authority for improvement residing at the top. Administrators, especially if their own children are not in public schools, may find it easier to let the situation drift, particularly if they are not held accountable for outcomes, as promoting change is demanding and one can take comfort in those models of education which hold the effects of in-school factors to be minimal at best compared to a student’s socio-economic background. One can expect little from some students on this view, therefore effort in trying is wasted. The resulting lack of achievement simply reinforces the original attitude. Such ideas were expressed (and acted upon) by some teachers in Rajasthan.

One illustration of the difference between the ‘top down’ and ‘bottom up’ approach to administering an education system is in the implementation of curriculum reform and the changes to established teaching practices that that may entail. SSA advocates a
change in teaching methods from traditional teacher centred approaches using recitation and other forms of rote learning to styles that actively involve the student. The National Curriculum Framework of 2005 is likewise founded on the principles of a ‘constructivist perspective’ (National Council of Educational Research and Training 2005 p17). Nothing of this sort was observed in classrooms in Rajasthan, where some teachers were barely aware of SSA let alone its details or advice to try new teaching methods. In Himachal Pradesh all teaching that was observed was teacher centred but teachers were aware that alternatives existed and a number expressed the wish to observe how teaching was done in Kerala and Karnataka with the aim of making their work more effective. A national collection of professional development programs for teachers under the title INSET (In Service Education for Teachers) have been conducted to support a changed pedagogy. The collection of training packages under INSET were devised by groups outside schools and the training ‘delivered’ to teachers. NCERT’s own assessment of the impact of this training on classroom practices (National Council for Educational Research and Training 2011) found some change in some states (mainly increased use of materials such as globes and charts) but no basic change in pedagogy, and consequently proposes changes to the packages. Change takes time and it may be that insufficient time had elapsed for the impact on classroom practice to be evident, but that is not the tenor of the report. Significantly it notes that the “Constructivist approach to teaching as advocated in NCF-2005 and SSA Framework 2008 was not reflected in the training packages” (National Council for Educational Research and Training 2011 p155) thus indicating a major incoherence between aims and design before the training had even begun. In junior classes in rural schools around Bangalore the researcher observed a radically different pedagogy - a form of ‘activity based learning’ (ABL) known as ‘nali kali’, in which students worked in small groups with a great variety of concrete materials for developing literacy, numeracy and knowledge in a range of subjects. The teachers were well-informed and enthusiastic about this style of teaching and had themselves produced most of the materials in use. Nali kali was developed locally, starting in 1995 from the work of 15 primary teachers, trialled in other schools, then adopted by districts until it became a state initiative supported by very intensive in-service based on the locally developed materials (Sriprakash 2012).

267 State Councils for Educational Research and Training (SCERTs), District Institutes of Educational and Training (DIETs) - both government bodies, by NGOs and by commercial companies (National Council for Educational Research and Training 2011 page xx).
Although externally prepared training packages delivered to teachers for them to implement are common and the nali kali experience rarer, there can be varying degrees of local and external involvement in professional development. The Aadhar program in Himachal Pradesh has the aim of improving basic literacy and numeracy skills. It was developed as a collaboration between state education authorities and Pratham in response to the poor student achievement revealed in the 2005 ASER report (Pratham 2005). Pratham, in developing the materials, was required to involve classroom teachers. Aadhar was trialled in a small number of schools in 2006-07, used in all schools in 2007-08, not officially used in 2008-09 and used again in all schools in 2009-10 (National Council for Educational Research and Training 2011). The NCERT evaluation of the program notes some deficiencies in planning and delivery (teacher involvement in planning may not have been extensive, delivery of materials to schools was sometimes late, training for use of Aadhar was variable in quality) but finds it to have positive impact on student learning. Of these three programs aimed at changing pedagogy - INSET, Aadhar, Nali Kali, it is the latter that meets most closely the PISA recommendations that actions to improve education should ‘prioritise the quality of teachers, be coherent, sustained over periods of time, and be consistently implemented’. It is also the one which has made the most substantial change to classroom practice.

Top down administration has difficulties not just with professional development and not only with education. Plans made remote from those they will affect may not meet real needs even if implemented as intended. If they don’t the ‘recipients’ will not have an interest in either seeing plans to fruition or in maintaining what was produced. Layers of bureaucracy between plan and implementation are a source of delay and opportunity for funds to go astray. Personnel tasked to work at local level as part of centrally devised and delivered plan are often not accountable to locals whom their work is intended to assist. For these reasons there has been a move to give more authority to local government, the Panchayati Raj Institutions (PRI). This has existed in the education systems in some states for decades, but is mandated as part of SSA. These bodies, Village Education Committees (VEC) or School Management Committee (SMC) have control over use of funds supplied to the school but not over curriculum or teacher employment, though they have the general function of overseeing the effective functioning of the local school. As noted in the chapters reporting fieldwork observations the actual operation of SMCs varied greatly from village to village.

268 It is likely that some teachers continued to use materials they had found useful the previous year, even if Aadhar was not in place as a program in that year.
Although writers such as Pritchett promote local governance as the way of building a quality school system many others have reported about local school governance groups that don’t function. The researcher heard such accounts, especially from teachers in Rajasthan, of the groups not meeting, authorisation to spend funds being impeded, of parents not being particularly interested in the school or even not knowing that they were a member of the governing committee. Duflo, responding to Pritchett’s paper delivered at a symposium, summed up common accounts by reporting on her research in Uttar Pradesh:

“The SSA was an attempt to improve bottom-up control on the schools through the formation of village education committees (VEC). Yet, years after they were instituted, 92.4 percent of parents have never heard of the VEC. Of the 7.6 percent who have, 5 percent cannot name any member, and only 1.4 percent can name members other than the Pradhans269 and the VEC. Perhaps what is even more worrying, 23 percent of the parents who are VEC members do not know it. And 73 percent do not know that, through SSA, funds are provided to schools. Neither parents nor teachers know what the children know, or do not know, very well. For example, only 38 percent of the children can do simple arithmetic. Yet, the average parent thinks that 58 percent of children are able to perform simple arithmetic” (Pritchett et al. 2007 p 171).

She makes the obvious observation that parental information/education campaigns might be expected to be a means to improvement but also observes that if a community has experienced failure from a service such as education for a prolonged period expectations become lowered to such an extent that individuals see no point in investing effort attempting to improve an inherently dysfunctional system. They are resigned to experiencing failure or, if possible, they exit the system for private schooling.

Community level governance may be effective if those involved choose it, do so for reasons of community development rather than personal gain, feel capable of undertaking the expected tasks; and, over time, observe beneficial outcomes from their efforts in local governance. When parents don’t know they are members of a school governance body the most basic element for its effective functioning doesn’t exist. If a VEC/SMC is properly established parents need to know their responsibilities and powers, have a notion of what a good school is, believe that their efforts can alter the local school’s performance; and, over time, observe this to happen.

“The existence of committees, by itself, cannot be an effective tool for change, if people are unaware of the existence of these committees, do not know their responsibilities, the resources that are available and how decisions can be made. ……… individuals or communities may not be active, either because they do not put a high priority on these services or because they are uncertain about whether their participation would make a difference” (Banerjee et al. 2007 p 1365).

These authors report a survey in one rural district of UP in which not only were all the undesirable attributes alluded to in the quotation revealed but other problems emerged

269 Pradhan - chief, leader
as well. In connection with student achievement villagers (parents and headmasters/headmistresses):

(i) consistently overestimated the performance of students, including that of their own children

(ii) nevertheless estimated that a large proportion of village students lacked basic skills while taking no action to alter the situation

(iii) accepted that students attended school irregularly.

With all systems of ‘local empowerment’, ‘client-side management’, even more fundamental than accurate local knowledge about the functioning/performance of services is that those at the ‘bottom’ place value on the services being provided and that if they do, that they have reasonable expectations about their quality. Several studies indicate that both these can be problematic. Banerjee reports from one location that when asked to rank the three most important issues in their village that education was listed by about 14 percent (versus roads, electricity, water supply and ‘no problems’) (Banerjee et al. 2007), while in another study 80 percent of locals were satisfied with health facilities provided though the researchers described as them as “dismal” (Banerjee et al. 2006).

What was noted about local governance of schools in the areas visited in Rajasthan and Himachal Pradesh illustrated both its potential benefits and its weaknesses. Being mandated under SSA some form of local school governance nominally existed everywhere; but the actual impact on schools could be detrimental as well as beneficial. Where the local bodies existed essentially in name only there were practical impediments to a school’s smooth operation such as hindrance in spending funds. There was also a detrimental effect on attitudes in that the dysfunctional local body became a convenient ‘explanation’ for the poor performance of the school as well as, in teachers’ outlook, an indication that the local community didn’t value education, thus reinforcing a negligent approach to their task of teaching. Inactive local governance within a system that assigns responsibilities to the local level leaves a void. Tasks that have been deputed to local bodies are usually not picked up by district or state authorities (not their responsibility!) and so remain undone. It is not sufficient to simply give responsibilities to panchayati raj institutions - they need support to develop the capacities to carry out those responsibilities; and there needs to be a means to monitor what is occurring and remedy the situation when local governance is not functioning. An active SMC/VEC, however, was seen to assist schools in a number of ways - as well as aiding smooth
administration there were practical aspects such as taking charge of the mid-day-meal program, looking after school maintenance and employing staff. In communities with active local bodies there was also a much more extensive collaboration and understanding between school staff and, at least some, parents. Parents from active local bodies had similar, though less detailed, knowledge of the general level of student achievement to that of teachers - couched in terms of improving state literacy in Himachal and, often, a hope to emulate Kerala. Absent, among both teachers and parents, was any notion of how student achievement compared with that outside India. Expectations are set, in part, by such knowledge and raising awareness of this would seem important to improving the quality of school education. Support, with external input, is needed even for active PRI bodies if they are to routinely strive for improvement in education rather be content with overseeing schools that meet local notions of what is satisfactory.
Chapter 8  Conclusion

When the researcher started her fieldwork she had some sense of the differences in the state of education in Rajasthan and Himachal Pradesh but little idea about some of the detail that would be revealed nor of the sources of the difference in performance of schools within the districts studied in the two states.

The figures from the District Information System for Education (DISE), All India Education Survey (AIES) and Pratham’s Annual Status of Education Report (ASER) capture only part of the story. The data from those sources about school buildings and facilities in general matched what was observed. Those sources indicate that SSA has had a big impact in improving infrastructure in the past decade and this was confirmed by what the researcher observed and was told by parents and teachers in each state. The provision of buildings and associated facilities was comparable in both states and their basic structure the same, though the present condition in terms of being well-maintained, neat, tidy and clean was noticeably better in Himachal Pradesh.

The data from those same sources concerning teachers - their supply, qualifications and attendance - was also largely confirmed from the fieldwork. However entirely absent from those data sources were two factors concerning teachers, one indicative, the other of fundamental importance. Although the percentage of teachers absent from schools was almost identical across the two sets of districts, in Rajasthan and Himachal Pradesh, the reasons for the absences were quite different as were the ways in which the schools coped. These are indicative of a more fundamental issue concerning the two sets of teachers - attitudes towards their students and teaching. Though there are, of course, differences from individual to individual in each state there was a dramatic difference observed between the two sets of teachers, as a whole, in their professionalism.

Attitudes conveyed by discussion will be noted later, but the most objective observation of professionalism was that teaching of even the most basic type was occurring in only two of twenty two schools visited in Rajasthan while teaching was happening in every classroom visited in Himachal Pradesh. The research cited in the previous chapter gives solid backing to the common sense notion held by students and parents that what teachers do in classrooms does matter. In so far as schools can educate irrespective of a student’s background, the differences in what students achieve in Himachal compared to those in Rajasthan is due to the very different classroom experiences the students have in the two states.
The ASER and National Assessment Survey (NAS) data on student achievement for the whole of each state are discordant, with NAS finding higher levels of achievement in Rajasthan and ASER finding students more capable in Himachal Pradesh. Direct comparison with the researcher’s observations is not possible as fieldwork was conducted in just three districts of each state. Limited district level ASER data shows significantly lower levels of literacy and numeracy achievement among students in the three Rajasthan study districts compared to students in the three districts studied in Himachal. Although measurement of literacy wasn’t attempted during fieldwork its assessment through working with students suggested that the differences in literacy capabilities between students in the two states are at least as great as the ASER figures indicate. The PISA results for Himachal showed poor literacy capabilities by international comparison and the researcher noted the lower level of literacy among the students she has worked with in the three Himachal districts compared with those of like age she has worked with in Australia and China. Not recorded in any of the statistics but very apparent from observing and interacting with students during fieldwork was the distinctly higher degree of confidence among the Himachal students compared to those from Rajasthan. Confidence builds from knowing one has acquired skills, from being recognised as an individual and from being treated in a caring and respectful manner. In turn confidence assists further learning; it is a desirable attribute to be fostered in school for its own sake, but it also furthers academic development. A number of Rajasthan teachers expressed disparaging views about their students, sometimes in the student’s presence. Rajasthan teachers commonly ascribed the poor performance of students to a supposed incapacity to learn because of the students’ social background and/or to the indifference of parents.

The research cited in the previous chapter established that teachers’ work in the classroom was the crucial in-school factor affecting student achievement, but noted that none of the readily measured teacher attributes correlated with their students’ achievement. Teachers in the study districts of Rajasthan were on average better educated than those in Himachal but this didn’t lead to more effective teaching. The research also noted the difficulty in identifying those attributes that do distinguish an effective teacher from an ineffective one; as well as finding that effective teaching is particularly significant for students from disadvantaged groups.

The researcher had a particular interest in girls education and wished to hear directly from girls in each state about factors that had affected their education as well as collect information related to this issue by observation of classes and via discussion with
parents and teachers. Although census (and other) data show a literacy gender gap, of varying extent, in each research district such population wide data reflects education patterns over past generations, not the current situation in schools. With virtually total enrolment of the school age population now the case it is no surprise that the literacy gender gap has been closing. However there may still be the sources for different education outcomes for girls compared to boys from such factors as:

(a) lower school attendance by girls, despite being enrolled  
(b) classroom practices that disadvantaged girls  
(c) social customs that impede girls education  
(d) economic circumstances that differentially impact girls

Nothing was observed indicating differential classroom treatment of girls and boys nor was greater absenteeism among girls evident. Teachers in Rajasthan suggested that early marriage of girls led to them completing fewer years at school than did boys. Some of the girls interviewed also gave this as a reason why their school education would finish earlier than they would like; others said that economic reasons would end their schooling as parents could not afford school expenses, though whether this would be different for their brothers is unknown. All the girls interviewed spoke about fitting their studies at home in between other tasks - all had substantial roles assisting in their homes, some had paid part-time jobs as well.

**Summary**

The research presented in this thesis leads to the following conclusions:

1. the state education systems in the rural areas of Himachal Pradesh and Rajasthan each made provision for state elementary schools to accommodate all the districts’ school age population and enrolment is almost total; however only Himachal succeeded in attaining at least a basic level of literacy for the majority of students.

2. neither system currently provides a broad, quality, elementary education. There was no evidence of any aspiration within Rajasthan schools to do so, but teachers and parents in Himachal Pradesh desired further improvement and were working towards it. At local level the type of education aspired to could be described, generally, as “the same but better”. However state education administrators who were spoken to, and some Pratham staff working in schools, envisage elementary education with broader aims than basic literacy and numeracy, implemented via a constructivist pedagogy that fosters students’ personal development as well as academic achievement.
3. a concise summary of the reasons for the differences between the two states risks grossly simplifying complex situations. In the most basic terms - Himachal Pradesh has a functioning system of state elementary education, but that observed in Rajasthan is dysfunctional. Himachal’s state administration works efficiently to support schools and teachers and local governance works effectively for many, but not all, schools. For some communities local governance played an important role in improving school facilities and building collaboration between teachers and parents. Teachers, though on average not as highly educated or trained as those in Rajasthan, were committed to teaching and observed to be interacting with students in every classroom visited. The fundamental primary factor for the poor achievement in Rajasthan was that teachers were not teaching. The reasons behind this are complex, interwoven and to some extent self-perpetuating. Significant factors are (a) perceived lack of support from the state education administration and in many cases from PRI bodies nominally supporting schools, (b) experiences such as waiting months for payment of salary, being required to take on a variety of civil tasks, experiencing ‘compulsory’ training deemed unrelated to classroom work and finding the focus of inspectors to be on usage of grain under the Mid Day Meal program rather than on the quality of education, all contribute to a sense that teaching is not valued. (c) a social and cultural separation of teachers from the local school community that inhibited development of collaboration with parents and inclined teachers to doubts about the educability of their students (d) the development of a self-reinforcing culture in schools that views employment as a sinecure and accepts low effort from teachers and low student achievement as the norm. The result is classrooms with little that is engaging. The high student absenteeism - nearly two thirds of those enrolled were absent when schools were visited - is, at least partly a consequence. This would itself be detrimental to learning, were any instruction being received by the one third who were present.

4. in both states girls were enrolled and attending elementary classes in the same number as boys. There was no evidence of in-school practices that disadvantaged girls. In Rajasthan early marriage as well as economic circumstances led girls to cease school at an earlier stage than they would have liked and before completing the eight years of compulsory education. In Himachal too girls reported having to cease school before completion for economic reasons, but in the majority of cases this happened after completing
year 8. In Shimla district, despite extensive enquiries, it was not possible to find any girl who had left school without finishing year 8. Most girls interviewed had tasks to perform outside school that restricted their study.

5. the Sarva Shiksha Abhiyan program had very a different degree of success in its aim regarding provision of education compared to that to do with its quality. In every area studied in each state SSA had ensured adequate provision of resources for basic elementary education: school buildings existed, teaching staff were available and grants for teaching resources arrived at schools. There were deficiencies in some places regarding particular facilities, especially water supply and toilets, but these were not widespread. Considerable improvement in resource provision has occurred under SSA, however the use made of the resources differed greatly in the two states. There has been less success with SSA’s aims to do with quality and equity, though the picture is mixed. Almost total enrolment of the school age population means that at least one first step to equitable education has occurred in that some traditionally disadvantaged groups (some girls, some children of SC/ST families) now have contact with schooling. High student absentee rates in Rajasthan to some extent negate the benefits of improved enrolment. The strand of SSA targeting a change in pedagogy in support of, the now almost decade old, NCERT 2005 Curriculum Framework shows little impact to date: none in Rajasthan, considerable interest in altering teaching methods in Himachal even while classroom practice remains teacher-centred.

Suggestions for future research

Rajasthan

The big questions are the factors which lie behind the unprofessional attitudes of so many teachers, and the many other dysfunctional aspects of the education system. Detailed ethnographic studies of particular school communities might shed light on the former.

Future researchers aiming to work on the elementary education system in Rajasthan might study primary schools that seem to be working effectively and apply what is learnt to other primary schools in Rajasthan.

Currently there is widespread use of Pratham workers supposedly to assist teachers, but it was often observed that they simply replaced them in the classroom. An intervention
and research program might look at ways of making use of trained external personnel in ways that required teacher involvement with the aim of altering classroom practices. Effective local governance of schools doesn’t happen by placing unwilling, uninformed persons on school committees, but given the nature of the state bureaucracy local governance seems a necessity. Trial programs of intervention and associated research programs might examine ways of developing in local communities the capacities needed to oversee the village school and raise its standards.

**Himachal Pradesh**

Future research in primary schools in Himachal Pradesh could include classroom interventions in order to trial different teaching pedagogies such as student centred learning and the use of ‘hands-on’ learning techniques in place of the traditional rote learning methods. Researchers can later assess the impact of this on student confidence as well as academic achievement and examine its uptake by existing school teachers.

As teachers expressed a desire to learn from other states, research could be conducted on trials whereby Himachal teachers were released to teach and observe in Karnataka or Kerala for short periods. Done on a trial basis this could replace the existing mandated 20 days of annual professional development for those teachers involved.

Other research could support trials employing the Nali-Kali model of pedagogical reform with groups of teachers in a Himachal district who develop a proposal for curriculum development being enabled to use the twenty mandated days of training to pursue their proposal rather than attend the centrally developed Professional Development.
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APPENDIX: Caste Data

Himachal Pradesh

SCHOOLS

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<tr>
<th>School location</th>
<th>total student enrolment</th>
<th>caste</th>
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<td>Chamba</td>
<td>20</td>
<td>ST, SC, General Category - mixed</td>
</tr>
<tr>
<td>Chamba</td>
<td>30</td>
<td>SC - all</td>
</tr>
<tr>
<td>Chamba</td>
<td>30</td>
<td>SC &amp; General Category</td>
</tr>
<tr>
<td>Chamba</td>
<td>52</td>
<td>General Category mostly, some SC &amp; OBC</td>
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<td>Kunihar</td>
<td>42</td>
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</tr>
<tr>
<td>Kunihar</td>
<td>66</td>
<td>OBC mostly, some SC and General Category</td>
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<td>73</td>
<td>SC &amp; General Category</td>
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<td>116</td>
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<td>Shimla Rural</td>
<td>5</td>
<td>General Category - 3, SC - 2</td>
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<td>Shimla Rural</td>
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<td>SC mostly, some General Category</td>
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<td>50</td>
<td>SC &amp; General Category</td>
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<td>Shimla Rural</td>
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<td>General Category <del>60%, ST</del> 40%</td>
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STUDENTS

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<td>Chamba</td>
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<td>group of 6</td>
<td>SC</td>
</tr>
<tr>
<td>Kunihar</td>
<td>group of 3</td>
<td>SC</td>
</tr>
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School information provided by a teacher (usually the Head Teacher)
Individual information provided by individual concerned.

PARENTS

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<th>Location</th>
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<th>Relationship</th>
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<td>SC</td>
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<td>Har</td>
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<td>SC</td>
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<td>SC</td>
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<td>Parvati</td>
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<td>Simi</td>
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TEACHERS

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As noted elsewhere: all names are anonymised
APPENDIX: Caste Data

Rajasthan

### SCHOOLS

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<tr>
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### TEACHERS

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### STUDENTS

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### PARENTS

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</table>

As noted elsewhere: all names are anonymised
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Author/s: KULLAR, HARMAN

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Date: 2014

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