

Pitfalls of Participatory Programs: Evidence from a Randomized Evaluation in Education in India[†]

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Participation of beneficiaries in the monitoring of public services is increasingly seen as a key to improving their quality. We conducted a randomized evaluation of three interventions to encourage beneficiaries' participation to India: providing information on existing institutions, training community members in a testing tool for children, and training volunteers to hold remedial reading camps. These interventions had no impact on community involvement, teacher effort, or learning outcomes inside the school. However, in the third intervention, youth volunteered to teach camps, and children who attended substantially improved their reading skills. This suggests that citizens face constraints in influencing public services. (JEL H52, I21, I28, O15)

The deplorable state of publicly provided social services in many developing countries has attracted considerable attention in recent years from academics and policymakers alike (World Bank 2003). Health and education sectors are plagued by high provider absenteeism, little on-the-job effort from those who do come to work, and overall poor performance. For example, teachers in primary schools and medical staff at primary health centers in India have absence rates of 25 percent and 40 percent, respectively (Nazmul Chaudhury et al. 2006). A 2008 nationwide survey on educational attainment in rural areas found that, even though 95.75 percent of

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children aged 6–14 years old are enrolled in school, many do not learn much. By grade 5 in rural India, only 56 percent of children can read a simple story (grade 2 level), and 19 percent cannot read beyond a word (Pratham Organization 2009). In Uttar Pradesh, the state where we conducted this study, only 43.5 percent of the grade 5 children could read a simple story.

Inadequate funding does not appear to be the only reason for the systems' poor performances. The Annual Status of Education Report (ASER) shows that some of the other relatively poor states in India (Madhya Pradesh, Himachal Pradesh, and Chattisgarh) have shown tremendous progress in educational outcomes, despite relatively low funding. For example, in the state of Chattisgarh, between 2007 and 2008, there was an increase of over 25 percentage points in children's reading ability and basic ability to do simple arithmetic operations in primary grades. While there has not been much rigorous research to understand the cause of these improvements, it is plausible that they can be attributed to a change in the motivation of all the stakeholders, rather than to a significant change in funding.

In fact, randomized evaluations have found little evidence that more resources on their own, with no changes to the way education is delivered, can improve test scores.¹ In contrast, studies have found improvements in outcomes when modest incentives have been given to teachers (see, e.g., Duflo, Rema Hanna, and Stephen Ryan 2008, and Karthik Muralidharan and Venkatesh Sundararaman 2006).² However, these incentives were implemented by a nongovernmental organization (NGO). When government bureaucrats implemented them, the incentives were ineffectual. For example, in Kenya, teacher incentives implemented by head teachers had no impact, because teachers received the bonus irrespective of their real presence (Michael Kremer and Daniel Chen 2002). In India, a reform that was meant to link government nurses' pay to their attendance was initially very effective, but it failed to have any impact after the local bureaucracy started providing official excuses for most of the nurses' absences (Banerjee, Duflo, and Glennerster 2008).

The belief that central administration may often have neither the incentive nor the ability to monitor civil servants has led development practitioners to believe that the involvement of beneficiaries is essential to make services work for poor people. Since beneficiaries have the necessary information to monitor the providers, and the incentives to demand good quality service, giving them more control (e.g., to punish or reward civil servants, or at least to provide input in this process), their participation should help improve the quality of public services. International aid agencies such as The World Bank not only advocate such policy initiatives (World Bank 2003), but also increasingly require development projects they fund to include "beneficiary participation" components, such as the constitution of users' committees, parent-teacher associations, and the mobilization of beneficiaries to participate in those components.

¹ For example, Paul Glewwe, Kremer, and Sylvie Moulin (2007) find no impact from textbooks, Glewwe, Kremer, Moulin and Eric Zitzewitz (2004) find no impact from flip charts, and Banerjee et al. (2002) find no impact from additional teachers in India. For discussion and more references, see Glewwe and Kremer (2006).

² See, on the other hand, Glewwe, Nauman Ilias, and Kremer (2003) for a cautionary tale on multitasking by teachers even when incentives are properly implemented.

Despite this enthusiasm, whether such policies, and the external interventions to support them, actually affect the exercise of control by beneficiaries, and whether this exercise can improve public services, remain largely open empirical questions. Evaluations of such efforts have produced mixed results. Martina Björkman and Jakob Svensson (2009) find very strong positive effects of NGO-led efforts to inform and mobilize communities on the quality of health facilities. In contrast, Benjamin A. Olken (2005) finds that increasing beneficiary attendance at meetings does not reduce corruption in road projects, although providing anonymous comment forms through school children does. Kremer and Christel Vermeersch (2005) find no effect of empowering school committees in Kenya, but Duflo, Pascaline Dupas and Kremer (2007) find that giving those committees resources to hire local teachers resulted in higher test scores, and training them in their monitoring role enhanced this effect. These contrasting results suggest that the details of both the setting and the way citizens are given a chance to participate in the process are crucial in predicting whether or not such interventions could work. To shed more light on this issue, a team led by Pratham, India's largest education NGO, and involving researchers from the World Bank and Abdul Latif Jameel Poverty Action Lab (J-PAL) at the Massachusetts Institute of Technology (MIT), designed and implemented a randomized evaluation in Uttar Pradesh (UP), India's most populous state, where three interventions designed to foster community participations were evaluated and compared.

India promotes beneficiary control through the government's current flagship program on elementary education, the Sarva Shiksha Abhiyan (SSA). This program, under which the federal government contributed 65 percent of the educational budget in UP in the 2007–2008 school year (Rs. 22,374 million or US \$559 million), gives a prominent role to the Village Education Committees (VECs). The VEC body, consisting of three parents, the head-teacher of the village school, and the head of the village government, is meant to be the key intermediary between the village and the district educational authorities. In principle, it is empowered to monitor teachers (and report the results to the administration) and to request extra resources. However, by 2005, more than four years after SSA was launched, the *prima facie* evidence suggests that the VEC structure was not being used effectively in UP. A survey of children, parents, and teachers in 280 villages in that district found that while most villages did have a VEC, very few parents knew of its existence, in some cases even when they were supposed to be members of it. VEC members were also unaware of the most important responsibilities that they had been assigned under the SSA—the hiring of additional teachers, allocation of school resources, and monitoring of performance. At the same time, the state of education in these villages bordered on the disastrous. Fifteen percent of children age 7 to 14 could not recognize a letter. Only 39 percent of those children could read and understand a simple story (on grade 1 level). Thirty-eight percent could not recognize numbers. Yet, parents, teachers, and VEC members were often unaware of the scale of the problem and tended to overestimate what children in the village really knew (Banerjee et al. 2006).

The interventions that Pratham implemented were designed after several months of a pilot study in the area. There was a conscious attempt to be sensitive to the specificities of the local environment (in particular the constraints and opportunities

resulting from the existing policies of the state government), to follow the available best practice guidelines for community engagement (World Bank 1996, 2003), and to streamline the design to enhance replicability and external validity. The interventions were designed in increasing order of complexity to test the following hypotheses:

- Citizens' awareness of what they are entitled to and how they are able to intervene is a significant constraint on participatory action (Rob Jenkins and Anne Marie Goetz 1999; Goetz and Jenkins 2001; Samuel Paul 1987) so providing that information to them is a sufficient (and inexpensive) way to foster more involvement.
- To be able to participate effectively, citizens must also be able to regularly monitor the outcomes (in this case, learning), implying that providing them with tools to measure learning can improve participation and effectiveness.
- Citizens are unlikely to participate in collective action unless there is a concrete course of action available (possibly outside the school system).

All three interventions shared a basic structure. Pratham activists spent several days facilitating small group discussions in each of the village's neighborhoods or hamlets, and inviting those neighborhood groups to a large village-wide meeting attended by teachers and members of the village administration. In the first and simplest of the three interventions, Pratham teams facilitated the meeting, got discussions going, and encouraged village administrators to share information about the structure and organization of local service delivery, especially the role and activities of the VECs. After the meetings, Pratham activists distributed pamphlets that described the various roles and responsibilities of VEC members and training of individual VEC members. The second treatment also provided this information and, in addition, the teams trained community members to administer a simple reading test for children, and invited them to create "report cards" on the status of enrollment and learning in their village. In each neighborhood, volunteers were trained to understand and administer a literacy test to children, record scores and enrollment status, and prepare a neighborhood report card using these data. The volunteers presented the various neighborhood report cards at the village-wide meeting during which a village report card was generated and discussed. The third intervention started with the Pratham team conducting the second treatment in the village, then recruiting one or more volunteers per village, and giving them a week's training in a pedagogical technique for teaching basic reading skills developed and used by Pratham throughout India. These trained volunteers then held reading camps in the villages. The typical "reading course" lasted two to three months, with classes held every day outside of school. This intervention offered committed individuals the opportunity and the competence needed to directly improve learning among children.

The results from the evaluation show that none of the three intervention methods managed to significantly increase involvement in the public schools by any of the players (the parents, the VEC, the teacher), nor did they improve school performance (attendance of children, attendance of teachers or community participation in schools). This is not because the mobilization entirely failed. In fact, the meetings

organized by Pratham were well attended (on average more than 100 people attended from a village of 360 households), and the third intervention resulted in both a large volunteer mobilization and a strong response by the parents outside the school system, with more than 400 reading camps held across 55 villages, reaching, on average, more than 130 children per village. Furthermore, the results from the third intervention also demonstrate that teaching these children how to read is not an impossibly difficult task. After a year, we see evidence of substantial progress for the children who attended the camps. For example, our instrumental variables estimate suggests that the average child who could not read anything at baseline and attended the camp was 60 percentage points more likely to decipher letters after a year than a comparable child in a control village.

These results suggest that, in the UP context, providing information on the status of education and the institutions of participation *alone* is not sufficient to encourage beneficiary involvement in public schools. This may be specific to the Indian schooling bureaucracy. Parents may be too pessimistic about their ability to influence the system even if they are willing to take an active role, or parents may not be able to coordinate to exercise enough pressure to influence the system. Nevertheless, the results do suggest that some caution is warranted when recommending standard beneficiary control approaches. It is also possible that the actual process of constituting the beneficiary control groups like the VEC, its composition, roles and responsibilities, and statutory powers need to be looked at carefully, both in concept and in practice. On the positive side, the results also suggest that, even in this context, information combined with the offer of a direct channel of action can result in collective action and improve outcomes. This suggests that there exists a desire to improve educational status among parents and villagers. The experience in this study provides evidence of interesting possibilities. In the UP context there seemed to be a greater willingness of individuals to help improve the situation for other individuals (via volunteer teaching) rather than collective action to improve institutions and systems.

The remaining sections of this paper proceed as follows. In Section I, we describe the evaluation design. In Section II, we describe the institutional context of participatory action, emphasizing the nature of the SSA model. In Section III, we present the interventions that are evaluated. In Section IV, we present the results, and we conclude in Section V.

I. Data Collection and Empirical Approach

A. Data Collection

The evaluation took place in 280 villages in the Jaunpur district in the state of UP, India. The state of UP is the most populous state in India with a larger population than Mexico (166 million inhabitants according to the 2001 census). It is also among the five worst performing states in terms of basic literacy. Jaunpur district was chosen in part because it is close to the state average in terms of literacy, and because it was one of the districts where Pratham was not already working at the time. Districts in India are divided into administrative blocks. In each block, on average, there are about 100 villages. Four of these blocks were randomly selected to participate in the

study, and the study villages were then randomly selected within each block. The survey and the study are thus representative of Jaunpur district (and its 3.9 million population) as a whole.

In both treatment and comparison villages, a baseline survey was conducted in March and April 2005, and the endline survey took place in March and April 2006. The surveys included a detailed dataset on 10 randomly selected households per village; a dataset on reading and math outcomes for all children aged 7 to 14 (at the time of the baseline) in 30 randomly selected households in the villages; datasets of headmasters of government primary schools and all VEC members; data on school infrastructure and functioning; and an average of 6.7 observations for each school on teacher presence obtained during random, unannounced visits during school hours. Every survey was conducted at least twice, so each dataset has a panel structure.

The surveys were designed to gather detailed information on the state of education from parents, headmasters, and VEC members. The household assessed awareness of and involvement in education by asking questions like “do you think your child can read a paragraph?” and “what specific education-related issues were discussed at the Gram Sabha?” Headmasters were asked about student achievement, school resources, and perception of education through questions such as “How much money did the state government give your school for routine maintenance last year?” and “How many students are retained every year due to insufficient learning level?” The survey of VEC members examined awareness of VEC responsibilities and the education situation in the village, and asked questions such as “what are the responsibilities of the VEC?” and “what activities has the VEC undertaken in the last year?” Random unannounced visits checked whether the school was open, whether the teachers were present and teaching, and what the children were doing.

The data on student learning outcomes were collected using a simple tool developed by Pratham. This tool has also been used extensively since 2005 for their annual flagship report, ASER.³ For reading evaluations, testers asked children to read a simple paragraph in Hindi (UP’s language). If they could read the paragraph, the tester moved up to a longer and more complex story. If the child could not read the paragraph, the tester quickly switched to a panel with a few single words on it. If the child struggled to read the words on the panel, the tester showed a panel with several letters and asked the child to identify them. A similar approach is used for math, with the levels in the math case starting from the ability to recognize numbers, moving up to the ability of performing subtractions, and, finally, divisions.

The final sample for the baseline survey consists of 2,800 households, 316 schools, 17,533 children (ages 7–14) tested in reading and math, and 1,029 VEC member interviews from the 280 villages. In the endline survey, 17,419 children were tested, a sample that includes all but 716 of the children in the baseline and, thus, very little attrition from the baseline survey (the attrition is evenly spread across the various treatment and control groups). An additional group of 2,131 children who recently turned seven years old were added to the sample at endline (this group is not included in most of the analysis that follows since we have no baseline for them).

³ In subsequent years, a similar tool has been used in UP government programs for measuring basic learning in primary grades.

Baseline data broken down by treatment group (shown in the Web Appendix) confirms that there are no systematic differences between treatment and comparison groups or between the different treatment groups.⁴ Baseline household characteristics also remain similar within subgroups divided by the children's initial ability to read.⁵

B. Empirical Strategy

Intermediate Outcomes.—Given the randomization, the basic empirical strategy is fairly straightforward. First, we group each outcome into “families” of related variables (each family corresponds to a panel in our regression tables). We then regress the endline measure of each outcome in that family on an indicator for each treatment group (the control group is the omitted category) and baseline measures for each of the outcomes in the family, i.e.,

$$(1) \quad y_{ijk} = \alpha + \beta_{1k} T_1 + \beta_{2k} T_2 + \beta_{3k} T_3 + X \gamma_k + \varepsilon_{ijk},$$

where i indexes the households, j indexes the village, k indexes the outcome, and X are the baseline values for all the outcomes in the family. The standard errors are clustered at the village level (using White standard errors) to reflect the fact that the treatments were implemented at that level. We also run a specification where we pool all the treatments together.

The only empirical difficulty is that there are a large number of outcomes that could have been affected by the interventions. This embarrassment of richness means that there is a danger of “cherry picking”—emphasizing the results that show large effects. To solve this problem, we present results on all of the outcomes on which we collected data, and, for each family of outcomes, we follow Jeffrey R. Kling, Jeffrey B. Liebman, and Lawrence F. Katz (2007), and calculate the average standardized effect over the family of outcomes. For a family with K different outcomes, each indexed by k , the average effect of treatment 1, $\widehat{\beta}_1$, is, for example, calculated as

$$\widehat{\beta}_1 = \frac{1}{k} \sum_{k=1}^K \frac{\widehat{\beta}_{1k}}{\widehat{\sigma}_{1k}},$$

where $\widehat{\sigma}_{1k}$ is the standard deviation of the control group for outcome k . The other average effects are calculated in a similar way. The standard errors account for the

⁴ Of the 88 characteristics presented in the tables in the Appendix, only 3 were found to have statistically significant differences at the 5 percent level between the groups—i.e., somewhat less than would be predicted by chance. The three differences were the number of seats in the classroom (where treatments 1 and 3 had slightly more than control), the number of parents who saw education as a problem (where families in treatment villages were slightly less likely to say that education was a problem), and the distance between parents' beliefs about what their children could do and reality. As a family, school facilities were not better in treatment than control.

⁵ We have checked the balance by running the household level on the treatment variables within each category (detailed results omitted to save space). We found that 10 percent of the regression show a significant difference between 1 treatment group and the control at the 5 percent level, including 46 percent in a “positive” direction and 54 percent in a “negative” direction. Thus, it seems that while there are a bit too many cases in which a baseline variable is significantly correlated with a treatment status, they are not at risk of biasing our results in one direction or the other.

correlation among the coefficients for all the outcomes in one family (the system is estimated by the seemingly unrelated regressions model, and the matrix of variance-covariance of the system is used to compute the standard error of the estimate).

The families of intermediate outcomes we consider are what VEC members know about their role (Table 1, panel A); VEC activism (Table 1, panels B and D); what VEC members know about the education situation in the village (Table 1, panel C); parental awareness and involvement with the school (Table 2, panels A and B); parental knowledge about the education situation in the village (Table 2, panel C); the priority given to education in village discussions (Table 2, panel D); school resources (in the Web Appendix), and student educational status (Table 3).

Learning.—Learning is obviously the main outcome of interest. Pratham classifies the reading level into five groups:

- cannot read at all,
- can read letters,
- can read individual words,
- can read a short paragraph, and
- can read (and understand) a story.

While testing the children's ability to read letters is a simple decoding exercise, testing their ability to read a story requires that the tester have some understanding of the story and some fluency. Testing the reading of a word or paragraph is in between, requiring the ability to combine letters, but little or no understanding. We therefore group paragraphs and words into a single category. Since the intervention was designed to bring children to a superior level of reading, we then look at how the interventions affect the proportion of children who, having started at a given level, end up reading at least at a given level. For example, we restrict the sample to children who are not able to read anything at baseline, and look at the effect of each intervention on the proportion of these children who can read at least letters, at least words or a paragraph, or a story by the endline. Thus, a child who can read a story at the endline gets a 1 for the "letter," "word or paragraph," and "story" levels. We then estimate equation (1) for the three outcomes, for all the subsamples.

The mathematics test is designed similarly, with children grouped into the following levels: cannot recognize numbers, can recognize numbers, can do simple numerical subtraction problems (two digits with borrowing, a problem children are expected to do in grade 1 according to UP textbooks), and can do simple division (three digits divided by one digit).

II. The Context: The Sarva Shiksha Abhiyan Model of Participatory Action in Education

A. Policy

The VECs are conceived of as the primary channel of participatory action under the SSA, which is the central initiative of the Indian central government toward

TABLE 1—VEC AWARENESS AND ACTIVISM

	Baseline		Endline comparison	OLS: Impact of treatment in endline				
	Mean (1)	N (2)	Group mean (3)	Treatment 1 (4)	Treatment 2 (5)	Treatment 3 (6)	Any treatment (7)	N (8)
<i>Panel A. Dependent variables—VEC members information about their role</i>								
Mentioned that they are in the VEC unprompted	0.383 (0.024)	248	0.247 (0.038)	0.084 (0.060)	0.083 (0.061)	0.030 (0.058)	0.066 (0.046)	237
Mentioned that they are in the VEC when prompted	0.753 (0.020)	248	0.602 (0.044)	0.065 (0.067)	0.095 (0.061)	0.047 (0.064)	0.070 (0.051)	237
Had heard of SSA	0.258 (0.018)	248	0.209 (0.033)	0.101 (0.056)	0.062 (0.053)	0.065 (0.058)	0.075 (0.042)	237
Knew that their school can receive money from SSA	0.210 (0.017)	248	0.179 (0.033)	0.119** (0.056)	0.048 (0.049)	0.072 (0.057)	0.078 (0.041)	237
Had received VEC training	0.132 (0.016)	248	0.046 (0.020)	0.118*** (0.042)	0.135*** (0.044)	0.148*** (0.041)	0.134*** (0.030)	237
Average over family of outcomes (in SD)				0.387*** (0.138)	0.345*** (0.125)	0.320** (0.141)	0.350*** (0.098)	
<i>Panel B. Dependent variables—VEC member activism</i>								
Complained	0.171 (0.014)	254	0.102 (0.024)	-0.035 (0.034)	0.033 (0.042)	0.017 (0.038)	0.005 (0.031)	235
Raised money	0.076 (0.010)	254	0.029 (0.012)	-0.015 (0.016)	-0.005 (0.027)	-0.006 (0.022)	-0.009 (0.018)	235
Number of school inspections reported	9.356 (0.696)	242	9.041 (1.201)	-0.161 (1.723)	-1.948 (1.550)	-1.204 (1.864)	-1.117 (1.435)	214
Distributed scholarships	0.082 (0.012)	254	0.054 (0.020)	-0.039 (0.038)	0.018 (0.042)	-0.013 (0.040)	-0.012 (0.033)	235
Implemented midday meal	0.147 (0.015)	254	0.122 (0.029)	0.006 (0.030)	0.001 (0.024)	0.029 (0.027)	0.012 (0.021)	235
Average over family of outcomes (in SD)				-0.090 (0.092)	-0.002 (0.093)	0.005 (0.092)	-0.030 (0.076)	
<i>Panel C. Dependent variables—VEC member knowledge about the education situation in the village</i>								
Didn't know about the "paragraph" question	0.089 (0.012)	248	0.064 (0.021)	-0.056** (0.027)	-0.018 (0.035)	-0.044 (0.028)	-0.039 (0.026)	211
Didn't know about the "sentence" question	0.094 (0.013)	248	0.061 (0.021)	-0.055** (0.027)	-0.009 (0.036)	-0.043 (0.028)	-0.036 (0.026)	211
Perception minus reality of how many kids can read paragraphs	0.153 (0.012)	222	0.098 (0.024)	-0.064 (0.037)	-0.033 (0.034)	-0.060 (0.034)	-0.051 (0.030)	177
Perception minus reality of how many kids can write sentences	0.118 (0.012)	221	-0.001 (0.022)	-0.040 (0.036)	-0.002 (0.032)	-0.024 (0.031)	-0.021 (0.028)	177
Average over family of outcomes (in SD)				-0.308** (0.131)	-0.086 (0.144)	-0.241** (0.123)	-0.209 (0.115)	

(Continued)

achieving universal primary education in India. States in India differ in the design of VECs and the roles and responsibilities assigned to them. In UP, VECs consist of the elected head of the village government, the head teacher of the local government school, and three parents of children enrolled in the village public schools. The parent members of the VECs are nominated by block-level public officials (the block is the first administrative level above the village). VECs are responsible for monitoring performance of public schools by visiting the schools, scrutinizing records, meeting teachers, parents, and children, and devising solutions to address any problem encountered. They are entitled to claim specified public monies and powers for this

TABLE 1—VEC AWARENESS AND ACTIVISM (*Continued*)

	Baseline		Endline comparison	OLS: Impact of treatment in endline				
	Mean	<i>N</i>	Group mean	Treatment 1	Treatment 2	Treatment 3	Any treatment	<i>N</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Panel D. Dependent variables—VEC member knowledge about their responsibilities regarding Shiksha Mitras</i>								
Mentioned that hiring a Shiksha Mitra is a VEC responsibility	0.036 (0.008)	254	0.036 (0.013)	0.035 (0.028)	-0.004 (0.017)	-0.007 (0.018)	0.008 (0.016)	246
Hired a Shiksha Mitra last year	0.027 (0.006)	254	0.013 (0.008)	-0.001 (0.011)	0.008 (0.014)	0.002 (0.012)	0.003 (0.010)	246
Claimed that the VEC will hire a Shiksha Mitra next year	0.009 (0.003)	254	0.018 (0.009)	0.002 (0.016)	-0.003 (0.014)	-0.001 (0.020)	-0.000 (0.012)	246
Average over family of outcomes (in SD)				0.109 (0.119)	0.012 (0.107)	-0.017 (0.117)	0.034 (0.090)	
<i>Panel E. Dependent variable—VEC turnover</i>								
VEC turnover	N/A		0.682 (0.028)	0.029 (0.040)	0.064 (0.038)	0.014 (0.042)	0.036 (0.032)	226

Notes: Columns 4, 5, and 6 report coefficients from one regression where Treatments 1, 2, and 3 enter as RHS variables, while column 7 reports a coefficient from a separate regression where a dummy for any treatment enters as an RHS variable. Standard errors are clustered at village level and are in parentheses. The number of observations for both separated treatment and combined treatment regressions is in column 8. Each regression includes baseline controls (not shown), which, for each panel, are the baseline values of all the dependent variables in the respective panel. The exception is panel E, in which controls are baseline panel A dependent variables, excluding baseline “know that school can receive money from SSA.”

Definitions: Column 1 reports the average for the entire sample during baseline, with number of observations in column 2. Column 3 reports the average in the comparison group in endline. Treatment 1 is an explanatory variable that refers to whether the individual resides in a village in which the mobilization only intervention occurred. Likewise, Treatment 2 refers to the mobilization and information intervention, and Treatment 3 refers to the mobilization, information, and “Read India” camps intervention.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

purpose—such as public grants for school development, the power to mobilize community contributions toward school improvement, and the power to identify and request the hiring of community members if the school needs additional teachers.⁶ These community teachers, or parateachers, are called Shiksha Mitras. They are hired on short-term contracts, and the community has in principle more power to oversee them.

Even as it is ideally conceived, the VEC’s control over the school is primarily indirect. It can petition for resources that the school is entitled to ask for, for example, or for hiring a Shiksha Mitra, but whether the funds show up or not depends on how much pressure they can put on the bureaucracy at the district level. There is no official guarantee that any village is entitled to them. It can also complain about the teachers or the level of education in the schools, but, once again, the ultimate decision on whether anything will be done about it is not in their hands. Nevertheless, the VEC can intervene directly in some areas. It can put direct pressure on the Shiksha Mitra to teach better and come to school more often, and it has the right not to rehire a Shiksha Mitra if his or her performance is deemed unsatisfactory. It gets a small amount of money each year (Rs. 7,000, about \$170) from the SSA to spend on school maintenance and ways to improve teaching in the school. It can also raise and spend

⁶ This description is taken from UP state government published documents on SSA and VECs.

TABLE 2—PARENTS' AWARENESS AND ACTIVISM

	Baseline		Endline comparison	OLS: Impact of treatment in endline				
	Mean	N	Group mean	Treatment 1	Treatment 2	Treatment 3	Any treatment	N
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Panel A. Dependent variables—parental awareness of school</i>								
Knew about the VEC	0.077 (0.006)	2,660	0.040 (0.007)	0.029** (0.011)	0.019 (0.013)	0.022 (0.013)	0.023** (0.009)	2,592
Could name specific VEC members	0.029 (0.003)	2,660	0.014 (0.004)	0.021** (0.009)	0.011 (0.009)	0.015 (0.008)	0.016*** (0.006)	2,592
Thought parents are most responsible for quality of schools	0.755 (0.010)	2,660	0.531 (0.025)	-0.035 (0.034)	-0.019 (0.035)	-0.002 (0.033)	-0.019 (0.028)	2,587
Thought parents are in top 3 of those responsible for quality of schools	0.959 (0.004)	2,660	0.905 (0.010)	-0.028 (0.017)	-0.016 (0.017)	-0.028 (0.017)	-0.024 (0.013)	2,587
Thought teachers are in top 3 of those responsible for quality of schools	0.922 (0.006)	2,660	0.930 (0.010)	-0.007 (0.015)	-0.008 (0.013)	-0.003 (0.016)	-0.006 (0.011)	2,587
Thought panchayat is in top 3 of those responsible for quality of schools	0.175 (0.009)	2,660	0.237 (0.020)	0.029 (0.029)	0.011 (0.028)	-0.021 (0.026)	0.006 (0.022)	2,587
Average over family of outcomes (in SD)				0.034 (0.027)	0.016 (0.030)	0.012 (0.028)	0.021 (0.021)	
<i>Panel B. Dependent variables—parental involvement with school</i>								
Visited school to monitor or complain	0.286 (0.009)	2,660	0.280 (0.018)	-0.016 (0.025)	-0.040 (0.025)	-0.014 (0.025)	-0.023 (0.020)	2,431
Donated to school	0.065 (0.005)	2,614	0.037 (0.006)	-0.001 (0.012)	-0.001 (0.011)	-0.006 (0.010)	-0.002 (0.008)	2,381
Volunteered at school	0.083 (0.005)	2,611	0.040 (0.007)	-0.008 (0.010)	-0.020** (0.009)	-0.010 (0.010)	-0.013 (0.008)	2,393
Complained about school	0.142 (0.007)	2,660	0.092 (0.012)	0.028 (0.019)	0.015 (0.017)	0.019 (0.019)	0.021 (0.014)	2,507
Average over family of outcomes (in SD)				0.002 (0.033)	-0.038 (0.031)	-0.013 (0.033)	-0.017 (0.026)	
<i>Panel C. Dependent variables—parental knowledge of education</i>								
Said "don't know" when asked how many children can read paragraph	0.200 (0.009)	2,660	0.172 (0.016)	-0.007 (0.023)	-0.044** (0.020)	-0.006 (0.024)	-0.018 (0.018)	1,920
Said "don't know" when asked how many children can write sentence	0.212 (0.009)	2,660	0.175 (0.016)	-0.012 (0.023)	-0.033 (0.021)	-0.008 (0.024)	-0.017 (0.018)	1,920
Perception minus reality of how many kids can read paragraphs	0.123 (0.007)	2,146	0.042 (0.012)	-0.014 (0.018)	0.018 (0.018)	-0.040** (0.017)	-0.012 (0.014)	1,671
Perception minus reality of how many kids can write sentences	0.109 (0.006)	2,113	-0.020 (0.012)	-0.019 (0.018)	0.025 (0.018)	-0.035 (0.018)	-0.010 (0.014)	1,662
Overestimated own child's ability to read	0.419 (0.009)	2,503	0.336 (0.015)	0.007 (0.022)	0.006 (0.023)	-0.026 (0.026)	-0.005 (0.018)	1,815
Overestimated own child's ability to write	0.254 (0.007)	2,466	0.196 (0.011)	-0.023 (0.018)	-0.003 (0.018)	-0.027 (0.017)	-0.018 (0.014)	1,794
Average over family of outcomes (in SD)				-0.047 (0.040)	0.005 (0.042)	-0.097** (0.041)	-0.047 (0.033)	

(Continued)

resources from the village, but, given that almost all the resources in public schools have traditionally come from the government, and the poverty of the average villager in this part of UP, this option is rarely employed.

It is also worth emphasizing that India has an elaborate system of local self-governance with each village sending an elected representative to a local governing council (the panchayat) that has a range of statutory powers and a direct link to the higher level of government. In principle, the villagers do not need to go through the

TABLE 2—PARENTS' AWARENESS AND ACTIVISM (*Continued*)

	Baseline		Endline comparison	OLS: Impact of treatment in endline				
	Mean (1)	<i>N</i> (2)	Group mean (3)	Treatment 1 (4)	Treatment 2 (5)	Treatment 3 (6)	Any treatment (7)	<i>N</i> (8)
<i>Panel D. Dependent variables—prominence of education as a perceived problem in the village</i>								
Did the respondent mention education as a problem	0.131 (0.007)	2,660	0.129 (0.014)	0.020 (0.021)	0.012 (0.020)	0.015 (0.020)	0.016 (0.016)	2,592
Was there any specific meeting on education	0.009 (0.002)	2,660	0.008 (0.003)	0.001 (0.005)	0.001 (0.005)	0.002 (0.006)	0.002 (0.004)	2,592
Average over family of outcomes (in SD)				0.039 (0.043)	0.025 (0.043)	0.033 (0.045)	0.032 (0.034)	

Notes: Columns 4, 5, and 6 report coefficients from one regression where treatments 1, 2, and 3 enter as RHS variables, while column 7 reports a coefficient from a separate regression where a dummy for any treatment enters as an RHS variable. Standard errors are clustered at the village level and are in parentheses. The number of observations for both separated treatment and combined treatment regressions is in column 8. Controls are included in all regressions but not shown. For each panel, controls include the same panel variables in baseline, as well as baseline caste, occupation, literacy, and education level.

Definitions: Column 1 reports the average for the entire sample during baseline, with number of observations in column 2. Column 3 reports the average in the comparison group in endline. Treatment 1 is an explanatory variable that refers to whether the individual resides in a village in which the mobilization only intervention occurred. Likewise, Treatment 2 refers to the mobilization and information intervention, and Treatment 3 refers to the mobilization, information, and “Read India” camps intervention.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

VEC in order to put pressure on the schools. They could directly lobby the panchayat, or even the MLA, who is their representative in the UP state assembly. We will therefore look at other forms of protest and lobbying by villagers and not just what they do with reference to the VEC.

B. Practice

In practice, although the VECs had been constituted in every village in 2001 (as required by statute), well before our study began, there is no evidence of parental involvement in the running of the public schools, either through the VECs or through other community or village mechanisms, based on a pre-intervention survey we conducted in 280 villages. It also seemed that no training for VEC members had been conducted with any level of seriousness by the state government in previous years to enable and empower VEC members to know their roles and responsibilities.

The baseline survey included an interview of 1,029 VEC members (their names and addresses were provided by each school's headmaster). The salient results from this survey are presented in Table 1 (column 1). A striking fact is that only 38 percent of the VEC members interviewed mention the VEC spontaneously when asked the names of organizations they belong to, and 25 percent still say they are not members after being asked specifically if they are a member of the VEC. Only 26 percent of them have heard of the SSA, the government program from which the VEC derives its powers, and only 21 percent know that their committee is entitled to receive resources from the SSA (Table 1, panel A). Most startlingly, only 3.6 percent mention the ability to request government funds to hire a Shiksha Mitra (an additional parateacher) when the school is overcrowded as one of the VEC's

TABLE 3—SCHOOLING STATUS AND STUDENT ATTENDANCE

	Baseline		Endline comparison	OLS: Impact of treatment in endline				
	Mean (1)	N (2)	Group mean (3)	Treatment 1 (4)	Treatment 2 (5)	Treatment 3 (6)	Any treatment (7)	N (8)
<i>Panel A. Dependent variables—type of school students attend</i>								
Out of school	0.069 (0.003)	17,530	0.079 (0.006)	0.008 (0.005)	0.006 (0.005)	0.013** (0.005)	0.009** (0.004)	16,455
In private or NGO school	0.373 (0.009)	17,530	0.387 (0.017)	0.009 (0.016)	0.019 (0.017)	−0.006 (0.017)	0.007 (0.014)	16,455
Any tutoring			0.069 (0.007)	−0.006 (0.009)	−0.018** (0.009)	−0.002 (0.010)	−0.008 (0.008)	17,530
Read class	N/A		0.005 (0.001)	−0.001 (0.002)	0.002 (0.003)	0.077*** (0.010)	0.009** (0.004)	16,412
<i>Panel B. Dependent variables—students' enrollment and presence (government schools)</i>								
Log (boys enrollment)	4.568 (0.033)	301	4.522 (0.062)	0.041 (0.048)	0.027 (0.050)	−0.020 (0.069)	0.017 (0.045)	276
Log (girls enrollment)	4.625 (0.032)	301	4.636 (0.075)	0.001 (0.077)	0.020 (0.074)	0.013 (0.075)	0.012 (0.071)	277
Fraction boys present	0.530 (0.015)	300	0.528 (0.028)	0.029 (0.041)	−0.004 (0.042)	−0.053 (0.041)	−0.008 (0.032)	244
Fraction girls present	0.496 (0.014)	301	0.522 (0.022)	0.053 (0.043)	−0.006 (0.035)	−0.027 (0.035)	0.006 (0.028)	249
Average over family of outcomes (in SD)				0.127 (0.097)	0.007 (0.086)	−0.105 (0.085)	0.011 (0.071)	
<i>Panel C. Dependent variables—students' attendance as reported by parents</i>								
Days present in last 14: all children	7.335 (0.086)	5,984	6.058 (0.239)	−0.279 (0.355)	−0.599 (0.351)	−0.314 (0.371)	−0.395 (0.285)	5,555
Days present in last 14: only male children in school	7.894 (0.099)	2,947	6.672 (0.254)	−0.264 (0.398)	−0.550 (0.391)	−0.255 (0.409)	−0.353 (0.312)	2,669
Days present in last 14: only female children in school	8.137 (0.099)	2,518	6.642 (0.263)	−0.221 (0.393)	−0.657 (0.394)	−0.152 (0.397)	−0.340 (0.308)	2,306
Average over family of outcomes (in SD)				−0.077 (0.086)	−0.153 (0.087)	−0.052 (0.092)	−0.094 (0.069)	

Notes: Columns 4, 5, and 6 report coefficients from one regression where treatments 1, 2, and 3 enter as RHS variables, while column 7 reports a coefficient from a separate regression where a dummy for any treatment enters as a RHS variable. Standard errors are clustered at the village level and are in parentheses. The number of observations for both separated treatment and combined treatment regressions is in column 8. Baseline controls were included in all regressions but not shown. Panel A controls include baseline writing, reading, and math level, gender, age dummies, type of school attended in baseline, and whether was out of school in baseline. Panel B controls are baseline levels of dependent panel B variables. Panel C baseline control variables are baseline days present in last 14 for all children.

Definitions: Column 1 reports the average for the entire sample during baseline. Column 2 reports the number of observations. Column 3 reports the average in the comparison group in endline. Treatment 1 is an explanatory variable that refers to whether the individual resides in a village in which the mobilization only intervention occurred. Likewise, Treatment 2 refers to the mobilization and information intervention, and Treatment 3 refers to the mobilization, information, and “Read India” camps intervention.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

prerogatives and responsibilities (Table 1, panel D). Yet, this is probably the most important power they have, since this gives them not only an extra teacher, but also an extra teacher they directly control (at least on paper).

Given the ignorance of the VEC members, it is not surprising to find that parents know even less about the VEC and its responsibilities. Column 1 of Table 2 reports some summary statistics from parents' responses to this survey. For example, when household respondents were asked whether there was any committee in the village that dealt with issues relating to education, a startling 92 percent responded that they

did not know of any such committee. Only 3 percent could name actual members of the VEC.⁷ It is worth noting that ignorance and lack of participation in the institutions of local governance are not just problems for education. Only 14.2 percent of respondents report that a household member ever attended a Gram Sabha, village meetings that were institutionalized as part of a country-wide decentralization initiative in 1993. Of the 14.2 percent who had attended a Gram Sabha meeting, only 24 percent mention education when asked about which issues were covered in the last Gram Sabha meeting (results not shown). More generally, when parents were asked what they consider the most pressing issues in the village, education ranks fifth on the list of village problems, with just 13.1 percent of respondents mentioning it at all (Table 2, panel D).

The baseline survey also found evidence that community members (parents, head teachers, and village leaders) do not know how bad things are in the village as far as education is concerned. Figure 1 shows low levels of learning at baseline for children aged 7 to 14 (see also panel A of Table 4), with 13 percent not recognizing letters; 36 percent not recognizing numbers; and only 42 percent demonstrating the ability to read and understand a simple story. Students in higher grades were more proficient in reading, but even in grades 9 and above, 13 percent of students were still unable to read stories (Web Appendix Table 1).

However, when the survey asked parents what they knew about learning levels of children in the village, including their own children, 20 percent of parents said that they had no idea of the village children's ability to read a paragraph and 21 percent of parents said that they had no idea of the village children's ability to write a sentence (Table 2, panel C, column 1). On average parents overestimated the proportion of children in the village who could read a paragraph by 12 percent. Furthermore, 42 percent of parents were too optimistic about their own children's ability to read, and 25 percent overestimated their children's ability to write. For example, 67 percent of the parents of the children who could read nothing thought they could at least read letters, and 38 percent of the parents of the children who could barely decipher letters thought their children could read and understand a story (see Figure 2). The picture is even more distorted in math, where a full 83 percent of the parents of the children who could only recognize numbers, but could neither subtract or divide, believed that their children could perform subtraction problems (see Figure 3).

III. The Interventions

The fact that there were large gaps in what the average villager knows about the state of education in his village or what he can do about it suggested that sharing this information with villagers was one possibility for getting them more involved. Moreover the palpable lack of any urgency associated with the problems in education suggested that motivating the villagers and helping them coordinate on doing something about education might also make the VEC more effective. To achieve this, Pratham, a very large NGO long involved in trying to improve the quality of

⁷ Moreover, the proportion of people without any knowledge of VECs remains as high even when we look only at parents whose children are enrolled in government schools (Banerjee et al. 2006, Figure 9).

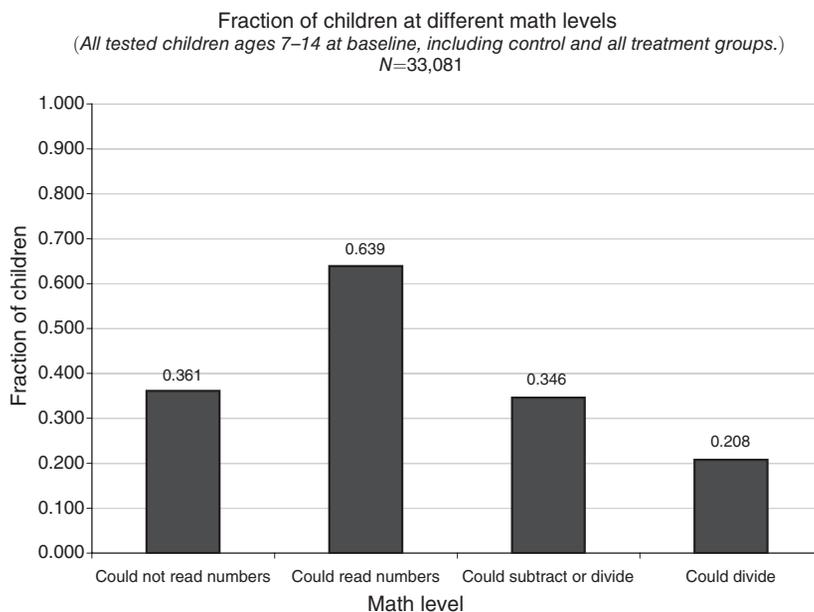
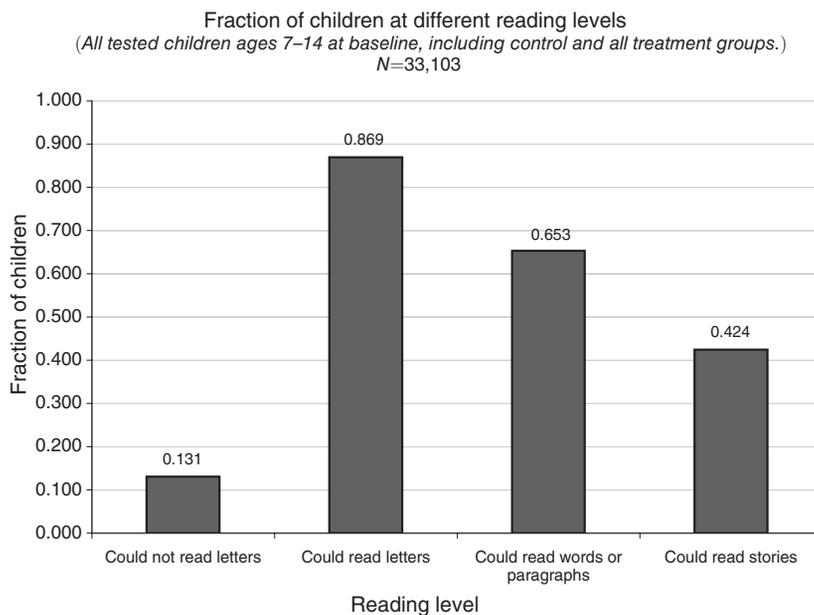


FIGURE 1. CHILDREN'S READING AND MATH LEVELS: BASELINE

education in India, developed and experimented with three different methods of mobilizing the communities and sharing information with them. The interventions were designed to test the three hypotheses laid out in the introduction:

- providing information is a sufficient (and inexpensive) way to foster more involvement;

TABLE 4—READING AND MATH RESULTS

	Baseline	Endline comparison	OLS: Impact of treatment in endline			First stage	IV
	Mean (1)	Group mean (2)	Treatment 1 (3)	Treatment 2 (4)	Treatment 3 (5)	Attend read class (6)	Impact of read class (7)
<i>Panel A. Reading results—all children (n=15,609)</i>							
Could read letters	0.855 (0.004)	0.892 (0.007)	0.004 (0.007)	0.004 (0.007)	0.017** (0.007)	0.077*** (0.010)	0.223** (0.093)
Could read words or paragraphs	0.550 (0.006)	0.635 (0.009)	0.005 (0.008)	-0.003 (0.008)	0.018** (0.008)		0.232** (0.101)
Could read stories	0.391 (0.006)	0.499 (0.011)	0.004 (0.009)	0.003 (0.010)	0.017 (0.010)		0.224 (0.137)
<i>Panel B. Reading results—children who could not read at baseline (n=2,288)</i>							
Could read letters		0.432 (0.023)	0.041 (0.031)	0.032 (0.034)	0.079** (0.035)	0.131*** (0.023)	0.602** (0.304)
Could read words or paragraphs		0.056 (0.010)	-0.006 (0.015)	-0.013 (0.012)	-0.007 (0.014)		-0.051 (0.106)
Could read stories		0.028 (0.007)	-0.006 (0.010)	-0.013 (0.008)	-0.008 (0.009)		-0.063 (0.074)
<i>Panel C. Reading results—children who could only read letters at baseline (n=3,539)</i>							
Could read letters		0.919 (0.010)	-0.008 (0.016)	-0.015 (0.014)	0.021 (0.013)	0.132*** (0.020)	0.162 (0.097)
Could read words or paragraphs		0.253 (0.014)	-0.011 (0.022)	-0.025 (0.021)	0.035 (0.022)		0.269 (0.171)
Could read stories		0.086 (0.011)	-0.001 (0.014)	-0.010 (0.014)	0.033** (0.017)		0.261 (0.135)
<i>Panel D. Reading results—children who could read words or paragraphs at baseline (n=3,673)</i>							
Could read letters		0.988 (0.004)	-0.001 (0.006)	0.006 (0.004)	0.006 (0.004)	0.074*** (0.012)	0.068 (0.065)
Could read words or paragraphs		0.813 (0.014)	0.032 (0.019)	0.010 (0.019)	0.044** (0.017)		0.614** (0.271)
Could read stories		0.520 (0.020)	0.010 (0.026)	0.010 (0.025)	0.032 (0.027)		0.458 (0.388)
<i>Panel E. Reading results—children who could read a story at baseline (n=6,109)</i>							
Could read letters		0.994 (0.002)	0.001 (0.003)	0.004 (0.002)	-0.001 (0.003)	0.030*** (0.006)	-0.058 (0.088)
Could read words or paragraphs		0.973 (0.004)	0.004 (0.006)	0.008 (0.005)	0.004 (0.005)		0.116 (0.170)
Could read stories		0.909 (0.008)	0.006 (0.011)	0.012 (0.012)	0.007 (0.011)		0.234 (0.350)
<i>Panel F. Math results—all children (n=15,592)</i>							
Could read numbers	0.619 (0.006)	0.691 (0.010)	0.006 (0.010)	0.006 (0.011)	-0.002 (0.011)		
Could subtract or divide	0.327 (0.005)	0.397 (0.010)	-0.003 (0.009)	0.006 (0.009)	-0.001 (0.009)		
Could divide	0.191 (0.004)	0.237 (0.008)	0.013 (0.007)	0.012 (0.008)	0.022** (0.008)		

Notes: Columns 3, 4, and 5 report coefficients from one regression where Treatments 1, 2, and 3 enter as RHS variables. Column 6 reports the coefficient on being in Treatment 3 in the first stage regression, and column 7 reports the IV coefficient on attending a reading class. Standard errors are clustered at the village level and are in parentheses. Baseline controls (not shown) included baseline reading, writing, and math skills, sex, age dummies, and dummies for whether was in an NGO or private school at baseline.

Definitions: Column 1 reports the average for the entire sample during baseline, where $n = 17,533$. Column 2 reports the average in the comparison group in endline. Treatment 1 is an explanatory variable that refers to whether the individual resides in a village in which the mobilization only intervention occurred. Likewise, Treatment 2 refers to the mobilization and information intervention, and Treatment 3 refers to the mobilization, information, and “Read India” camps intervention

***Significant at the 1 percent level.

**Significant at the 5 percent level.

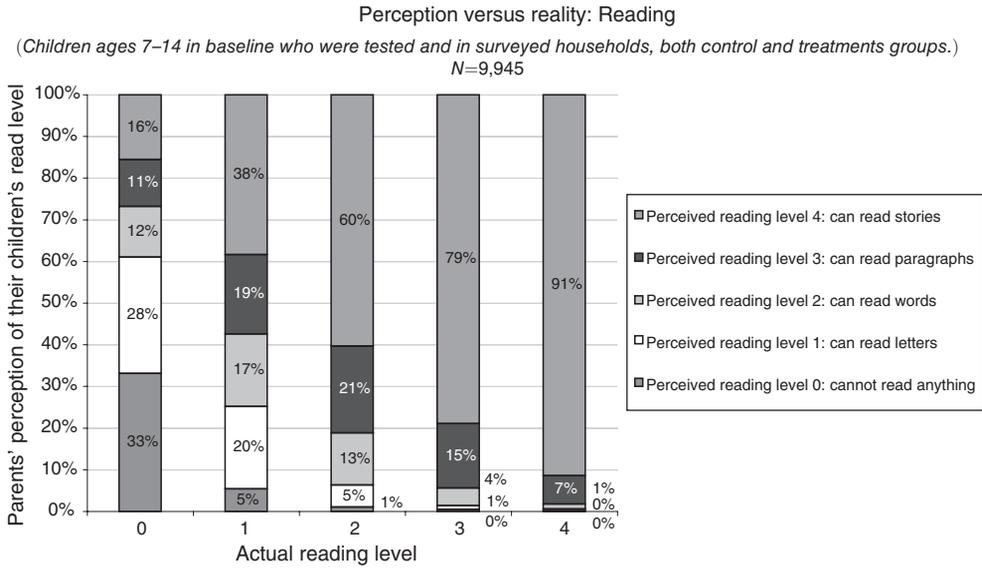


FIGURE 2. PARENTS’ PERCEPTION VERSUS THE REALITY OF THEIR CHILDREN’S READING LEVELS: BASELINE

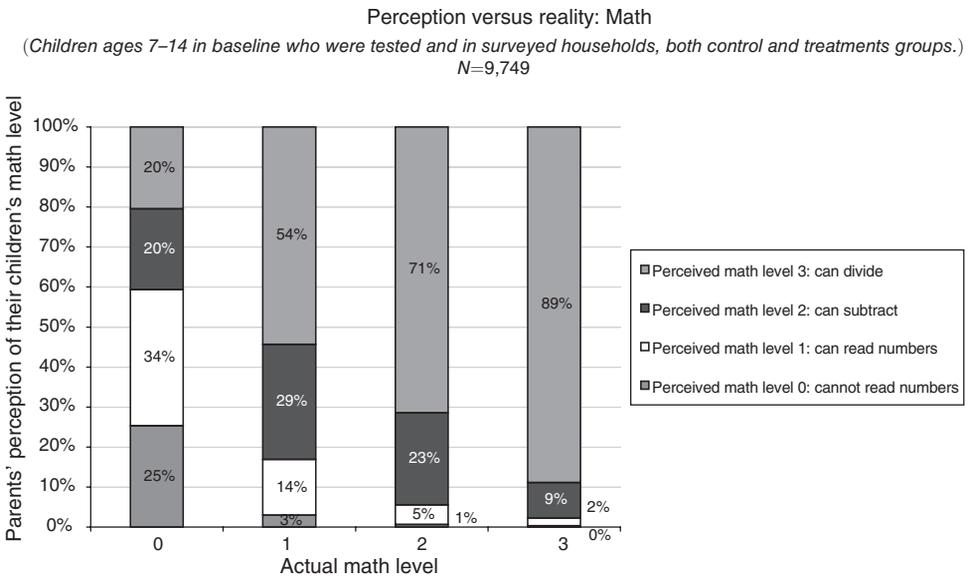


FIGURE 3. PARENTS’ PERCEPTION VERSUS THE REALITY OF THEIR CHILDREN’S MATH LEVELS: BASELINE

- to be able to participate effectively, citizens must be given tools to monitor learning outcomes regularly; and
- citizens are unlikely to participate in collective action unless there is a concrete course of action they can take.

A. Intervention Description

All three interventions adopted the same basic structure to share information on education and on the resources available to villagers to improve the quality of education. The interventions started with small-group discussions carried out in each hamlet over at least two days. In all of these meetings, Pratham staff members acted as facilitators, encouraging discussion by raising questions, rather than providing facts. They asked questions such as: Do you know about the status of education in your village? Do you think children are learning? What aspects of education concern you the most? The intervention culminated in a general village meeting typically attended by the Pradhan (village head) and the school headmaster. The intervention teams tried to facilitate the discussion in this meeting so that local key actors of the village (the school teachers or Pradhans) provided general information about the provisions and resources available at the village level, as well as village-specific information on the existence of VECs, its membership, what resources it receives, and the different roles it can play. Pratham facilitators were provided a fact sheet covering information about the public education system and VECs, and checked whether all these facts were shared at the village meeting. If something was missing, they would raise it themselves. In the following weeks, facilitators visited each VEC member and gave him or her a written pamphlet on the roles and responsibilities of the VEC, which they also discussed with the VEC member.

This formed the basic structure of all three interventions, with the first intervention stopping at this point. The second intervention then added the use of the simple reading and arithmetic tool to enable villagers to also generate their own information about their children's learning outcomes. As already mentioned, it was clear from the baseline survey that a large fraction of children currently enrolled in school were unable to read a simple text or do basic arithmetic, but many parents overestimated their children's learning levels. In addition, during the piloting, the field staff noted that even when people talked about education, it was rarely about learning. If anything got them excited it was the state government's scholarship program, or the new school-meals program. The second intervention was aimed at sharing information about the status of learning in the villages with parents, teachers, village leaders, and VEC members to help parents focus on the issue of learning in their discussions about education. To this end, the Pratham staff taught interested villagers how to evaluate a child using the simple testing instrument used by Pratham (including for our own data collection), which we will describe in more detail. In each neighborhood, a number of citizens tested all the children, and in just a few days the villagers generated their own "reading report card," which was then discussed at the village meeting. Villagers who had participated in creating the report card for their locality were encouraged to speak out at the village meetings and present their findings and experiences. This had the impact of generating the necessary information, actively engaging the community, and shifting the conversation in the general meeting toward learning issues. In addition, this intervention also transferred a specific monitoring tool to the community, which could make it easier for villagers to monitor progress.

The third intervention supplemented the first and second interventions by providing a way for a motivated citizen to directly improve education levels. Pratham

introduced the villagers to a simple technique for teaching children how to read used in its own flagship “Read India” program. It invited local volunteers to learn how to teach children how to read using a simple pedagogy developed by Pratham, and start after-school reading classes. During the time that the Pratham teams spent in the village (usually three to four days), there would be a “demonstration” class in which simple activities to boost reading were shown with children in the village. Individuals who wanted to teach could attend a training session conducted later, which lasted for four days. Volunteers were then supported by periodic visits from Pratham staffers, who checked that the classes were held and provided some in-service training. Each village in treatment three received about seven visits from staffers. The third intervention therefore offered the community a direct and individual way to improve learning levels. Such direct interventions by the village community were specifically mentioned in the UP state government pamphlet on VECs as one of the things that community members can and should do to improve education in their village. However, it is worth emphasizing one key difference between this piece of the third intervention and everything else that was implemented in this experiment. This was the one thing that sections of the community could do *without engaging at all with the school system* or even the majority of the village.

Each of these interventions was implemented in 65 villages, randomly selected out of the 280 villages in the baseline between September 2005 and December 2005. A fourth group of 85 villages formed the control group. Monitoring data suggests that the interventions were well implemented. All treated villages held at least one meeting, with some holding more than one, for a total of 215 village-level meetings in the 195 villages. The meetings were well attended (the general meeting had on average 108 participants, 95 percent of whom were present during the entire meeting), with good representation from different hamlets and castes of the village (37 percent of the meeting attendees were women). In terms of who spoke, 72 percent of the meetings had participation from a wide range of groups and castes, and in 55 percent of the meetings, men and women were equally likely to be talking (in 84 percent of the remaining meetings, males did most of the talking). In 55 of the 65 treatment 3 villages (i.e., 84 percent of the total), volunteers started reading classes. On average, there were 7.4 reading camps per village in treatment 3, each led by a different volunteer, but with the considerable variation of between 0 and 16 groups per village and a total of 7,453 children in the villages (135 per village on average). In our random sample of surveyed children, the intervention 3 communities, 8 percent, or 315 children, had attended the camp.

B. Comparison with Best Practice—Why These Interventions?

While these interventions were based on Pratham’s extensive knowledge of the situation on the ground, and on extensive piloting of ways to conduct effective meetings, it is reasonable to ask whether the interventions were actually designed to work well. There is, of course, no conclusive way to answer this question. There is always the possibility that something else would have worked better in any particular context. On the other hand, the intervention needed to be simple enough to be replicable and for the lessons to be generalizable. Recognizing this, Pratham followed a set of

the “best practices” for external interventions aimed at inducing greater participation in the monitoring and improvement of public services. The fact that the interventions followed these guidelines should go a long way toward assuring that what we evaluate in this paper corresponded ex-ante to what policymakers would consider to be an effective participation intervention. Thus, in this section, we summarize the best practice guidelines available from the *World Bank’s Participation Sourcebook* (1996) (and other notes on best practice from this same source),⁸ and argue that the intervention that Pratham designed and implemented met most of these criteria. Moreover, we will suggest that Pratham was a natural candidate for being the implementing organization. In this sense, the intervention we study should provide us a “best case” scenario for the effectiveness of these kinds of interventions, at least in a context similar to UP. While something else may have worked better, it is not something that was suggested for this context.

The first guideline is that the intervention should be inclusive. There needs to be an attempt to include all sections of the village and make them feel that they are a part of the intervention. Specifically, it is not enough to have one big meeting where outsiders deliver their message and leave. The Pratham volunteers were in the field for at least two days (for four days in the cases of interventions two and three), and facilitating teams visited each hamlet within a village, making sure to cover “low-caste” hamlets, carrying out conversations about education in small and large groups (which enabled women to participate, for example), and inviting local people to take the lead.

Second, the mobilization should not create unrealistic expectations. Here, the objective was to raise the learning levels of the children, in particular with respect to reading. Pratham’s experience shows that it is indeed possible for a child to considerably improve his or her reading level in a few months, provided that some targeted attention is paid to the child (Banerjee et al. 2007).

Third, the intervention should not bypass or undermine existing institutions. Interventions 1 and 2, which build on the role of VECs in facilitating change, clearly satisfy this criterion. Intervention 3 was the only one in which an alternative to the existing institutions was proposed, though as a complement to the system, rather than a substitute.

Fourth, practitioners emphasize the value of community-owned “score-cards” in mobilizing communities to take action. In interventions 2 and 3, the community created its own report card by testing children in math and reading. Both the results and the tools were transferred to community members.

As the largest NGO in India, Pratham has demonstrated success in several randomized evaluations of its programs and it reaches millions of children throughout the country. Since 2005, Pratham has designed and run the ASER, which tests children in all of India’s nearly 600 districts every year. It is the largest exercise of its kind in the country and generates the only current estimates of children’s basic learning (reading and arithmetic) disaggregated at the state and district

⁸ The *Sourcebook* can be found at the following Web site, with links to other notes on designated best practice: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB11996/02/01/000009265_3961214175537/Rendered/PDF/multi-page.pdf.

levels.⁹ Pratham plays an extremely prominent role in the discourse on education in India. The organization takes community participation in education very seriously (it is the backbone of its flagship “Read India” program) and devotes considerable resources to make sure that the program is implemented as well as possible. Pratham has worked closely with the government for several years, and, as such, was probably the most likely to be (and perceived to be) a credible source of information, training, and advocacy for the villagers to improve public services. Pratham’s motivation and expertise thus made it an obvious candidate for implementing these interventions.

Taken together, this information suggests that we can be reasonably sure that we are evaluating well-designed and effectively implemented interventions. It is also clear that they reached their immediate goals: encouraging participation; holding meetings that focused on learning; and generating discussion, interest, and willingness on the part of at least some people to act (as evidenced by the fact that Pratham was effective at recruiting volunteers for the reading camps).

IV. Intervention Results

This section summarizes the results of the interventions. It shows that all three interventions achieved their immediate goals. VEC members and parents became more aware of the institutions of participation in all three interventions, and, in villages that participated in intervention 2 and 3, they became more aware of the status of education in their village. In intervention 3 villages, trained volunteers held reading camps for children after school. However, none of the interventions increased parents’ involvement with the public school system, and, correspondingly, there were no changes in school resources. Consequently, interventions 1 and 2 did not result in any increase in learning, while the reading camps were extremely effective, leading intervention 3 to have significant impact on the improvement of children’s reading levels.

A. Knowledge of the Participatory Institutions and the Status of Education

Reassuringly, all of the interventions did affect what VEC members know about their role, as shown in panel A of Table 1. Looking at the average effect of treatments 1–3 (in column 7), the average impact on family outcome in panel A (VEC members’ knowledge about their role) is large, 0.35 standard deviation, and significant. The effect of the treatment is positive on all the variables in this family. It is significant for their knowledge of the SSA (there is an increase of 7.5 percentage points in the fraction who have heard about the SSA, and 7.8 percentage points in the number of VEC members who know they can access funds through the SSA), and the probability that they have been trained (13 percentage points). However, these improvements are counterbalanced by a worsening of what VEC members know in the control villages (many of the VEC members had changed in between, and the new members did not receive training outside of the intervention villages), so that

⁹ See www.asecentre.org for details on all ASER reports since 2005.

the overall level of knowledge of the VEC members did not actually increase in the treatment villages between the baseline and the endline surveys.¹⁰

Panel C of Table 1 shows that VEC members also know more about the village's state of education in the intervention villages. When we consider the family of outcomes, their knowledge of what children know has improved by 0.21 standard deviations (significant at the 10 percent level) on average across all three treatments (column 7). Knowledge improves in all treatments (significantly so in treatments 1 and 3). Curiously, they seem to have learned the most in intervention 1.

We also find a significant difference in parents' knowledge of the VEC between treatment and control villages (Table 2, panel A). Parents in treatment villages are 2.9 percentage points more likely to know that a VEC exists (compared to only 4 percent in the control at endline). However, these effects are strikingly small, and the proportion of people who know about the VEC even after the interventions remains very small, barely 7 percent. The 360 or so households in an average village sent 108 adults to the meeting. Even under the extreme assumption that two adults came from every household that was represented, this means that one in six households was at the meeting. If everyone who was at the meeting registered the fact that there was a VEC in the village, we would have expected the fraction of those who knew about the VEC by the endline to be at least 15 percent (and plausibly much more since 62 percent of the participants were male, and therefore probably represented different families). It seems that either many of the participants in the meetings did not register the information about the VEC or they promptly forgot. (The fact that the share of parents who know about the VEC went down from above 8 percent to 4 percent in the comparison villages suggests that people do forget.) Overall, there does not seem to be an increase in parental awareness of their roles and the VEC roles in education (Table 2, panel A). The average impact of all treatment on the awareness family is 0.021, with a standard error of 0.021.

Parents are also slightly more aware of their village's education status in villages that came under treatment 3, (Table 2, panel C). The average effect on the family of outcomes "knowledge of education status in the village" is 0.097 standard deviations in treatment 3 villages, and 0.05 standard deviations across all three treatments on average (column 7). The effect for treatment 3 villages is significant at the 5 percent level.

B. Parental Involvement

Despite the real, if modest, difference in awareness, we see very little difference between the VEC's performance in treatment and control villages. They are no more likely to report that they have complained to anybody, or tried to raise resources in any of the treatment groups. In Table 1, panel B, the effect on the family of outcome for the joint treatment is -0.030 , with a standard error of 0.076. Thus, we can reject at the 5 percent level that the intervention increased VEC activism by 0.12 standard deviations. Panel D in Table 1 shows that they neither showed more awareness of

¹⁰ Note that, in both the baseline and endline surveys, the question was phrased exactly the same and the interviewing team had the same members. So, it is unlikely that this change is due to a different way of conducting the survey.

the VEC's responsibilities for hiring Shiksha Mitras nor were they planning to do anything more about hiring Shiksha Mitras (the effect on the family of outcomes is 0.034 standard deviation, with a standard errors of 0.090).

The intervention also did nothing to increase the parents' engagement with the schools (Table 2, panel B). Parents are no more likely to have visited the school or to have volunteered time and/or money in the treatment villages than in the control villages. This finding holds for each of the three treatments. The impact of parent involvement with schools is even smaller than the impact of awareness. We can reject at the 5 percent level an increase of 0.06 standard deviations in parents' involvement with the schools for any treatment, which would be a very small effect. The parents' reports are confirmed by the head teachers, who do not report any more visits from parents, having received any more input of time or money from parents, or having exercised any more effort to involve parents (see Web Appendix, Table 7).

As reported before, the one place where we do see a difference in parents' action is in the intervention 3 villages where volunteers ran more than 400 reading courses in the 55 villages. We did not collect systematic direct information on volunteer classes in the other villages, but there were no reports of such classes being started. An indirect indication that the supply of tutoring classes did not increase is that we did not see an increase in the fraction of children attending tutoring classes in intervention 1 and 2 villages. In contrast, where the volunteers provided a readily available outside option (Pratham's reading course), parents did take advantage of it. Eight percent of the children in intervention 3 villages have attended a reading class (Table 3). Reassuringly, attendance to the course was concentrated among children who did not already read fluently. Thirteen percent of the children who could not read anything, or who could read only letters in the baseline, attended the class, while 7.4 percent of the children who could read words or a short paragraph at baseline attended the class (Table 4, column 6). Also, 3 percent of the children who could read a story at baseline attended the class.

Another way parents could have reacted to the information that was provided to them was to choose a purely individual course of action—exit. The private school market is very active in UP, and almost every village has at least a private school, which is usually affordable to even poor families. At baseline, 34 percent of children were in private school.¹¹ Interestingly, however, there is no evidence of parents reacting to the information about their children's learning by moving their children to a private school or increasing their tutoring. In intervention 3 villages, we actually see the fraction of out of school children go up by 1.3 percentage points (significant at the 5 percent level), a not insignificant 16 percent increase over the comparison group figure, which turns out to be entirely due to children dropping out of private or NGO schools (results omitted to save space). It may be that parents consider the reading classes to be an adequate alternative to a private school.

Finally, another private reaction could have been to get the students to attend school more often. Children are in school only about half the time, leaving a large margin for improvement. Panel B in Table 3 suggests that the interventions did

¹¹ The de facto privatization of the Indian school system in many states has been noted by several authors, including Lant Pritchett and Rinku Murgai (2006).

not affect child attendance either. The effect of all 3 interventions on the family of outcomes is -0.094 , with a standard error of 0.069 . We can thus rule out at the 5 percent level a 0.04 standard deviation increase in child presence in school, a small effect.

C. School Resources, Teachers, and Students

With headmasters doing no more to mobilize parents, and neither parents nor VEC members requesting more school resources, it is not surprising that there is no evidence that any of the treatments generated additional nonteaching resources for the schools. Overall, we find no effect on school resources, nonteaching resources or teacher presence (Web Appendix, Table 9). The only variable where we find a positive effect is in intervention 2 villages, which were significantly more likely to hire a Shiksha Mitra, a local teacher who is hired and controlled by the community (intervention 2 villages hired 0.23 additional Shiksha Mitra, while the control had 1.2 Shiksha Mitra at endline, significant at the 5 percent level). Obtaining resources for the school to hire a Shiksha Mitra is one of the most obvious ways the VEC can influence public education, so this effect is encouraging. Note that there was no significant increase in intervention 3 villages, perhaps because the reading classes were seen as a more effective way to improve learning.

D. Learning: Mobilization and Information

Given that there appears to have been little or no action at the school level (except for the hiring of 20 percent more Shiksha Mitras in intervention 2), no initiative by small groups outside the school system, and no individual action by parents to take their children out of the public school system, seek extra help, or force them to attend school more regularly, we probably should not expect interventions 1 and 2 to have an impact on learning levels. And indeed, as Table 4 shows, neither intervention has an effect on reading or math levels. Both reading and math levels increased as much in the comparison group as in either treatment 1 or treatment 2. None of the treatment effects estimated for various reading levels and subgroups is significant at the 5 percent level or better, and the standard errors allows us to rule out even small effects. For example, we can rule out that an intervention 2 resulted in an increase of 1.7 percentage points in the fraction of children who can read at least letters, and an increase in 1.2 percentage points in the fraction of children who can read words or paragraphs.

E. Learning: Impact of the “Teaching” Intervention

In contrast, the third intervention (which had the reading camps) had a very large impact for the children it was meant to affect. Column 5 in panel A of Table 4 displays the learning results of intervention 3. Overall, children in the villages that received intervention 3 are 1.7 percent more likely to read at least letters (significant at the 5 percent level), 1.8 percent more likely to read words or paragraphs (significant at the 5 percent level), and 1.7 percent more likely to read stories (significant at the 10 percent level).

This average masks considerable heterogeneity, however: The intervention was not meant to teach letters to children who could already read them, and conversely a three-month program could probably not bring a child who could not read letters to the level where he could understand a story. The effects are thus expected to vary according to the child's initial level. When we run the same regression separately for children at different reading levels, the results reveal a clear pattern.¹² Children who could not read anything at the baseline are 7.9 percent more likely to be able to read at least letters at the endline in intervention 3 villages. But their improvement stops at the letter recognition stage. They are no more likely to be able to read paragraphs or stories (Table 4, panel B). Those who could read only letters at baseline are 3.5 percent more likely to read at least paragraphs or words, and 3.3 percent more likely to read stories if they were in intervention 3 villages. Those who could read either at the word or paragraph level are 4 percent more likely to read at least paragraphs or words (note that 19 percent of the children who started at that level have regressed in the comparison group).

These increases may not seem that large at first, but we have to remember only a small fraction of the village's children attended the classes. On average, only 8 percent of children (including 13 percent of those who could not recognize letters) in our sample attended the reading class in intervention 3 villages. Since none of the interventions (including intervention 3) seem to have affected any other dimension of the child's learning experience, it is reasonable to assume that the effect of intervention 3 on reading outcomes came entirely from attending the reading classes. In this case, being in an intervention 3 village is a valid instrument for attending the reading class. Thus, we run a two-stage least squares regression, where the variable "attended a reading class" is instrumented using "intervention 3," i.e., we run

$$(2) \quad y_{ij} = \alpha + \lambda R + \beta_1 T_1 + \beta_2 T_2 + \mathbf{X}_{ij} \gamma + \varepsilon_{ij},$$

where R is a dummy for whether the child attended the reading program, and T_3 is the instrument for R (other variables instrument for themselves). X is a set of child-specific controls including age, gender, school status at baseline, and reading level at baseline.

The results are presented in column 7 in Table 4. Provided the exclusion restriction is valid (i.e., the effect of intervention 3 is entirely channeled through attendance to the reading classes), this instrumental variable estimate tells us the effect of attending a reading class on the ability to read at various levels for the sample of kids who chose to attend. On average, the results in panel A suggest that attending a reading class makes these children 22 percent more likely to be able to read at least letters, 23 percent more likely to read at least a word or paragraph, and 22 percent more likely to read a story (though this last effect is not significant). Note that this is

¹² We have checked whether the groups remain balanced within subgroups defined by childrens' ability by running the household level on the treatment variables within each category. We found that 10 percent of the regressions show a significant difference between the treatment and the control groups at the 5 percent level, including 46 percent in a "positive" direction and 54 percent in a "negative" direction. Thus, it seems that while there are a bit too many significant baseline variables, they are not at risk of biasing our results in one direction or the other. The results are virtually identical regardless of whether the household-level control variables are included or not.

an estimate of the impact of the reading class on those who participated, and those who chose to participate may have had particularly large treatment effects.

Again, to understand the impact of the program, it is important to disaggregate by initial learning level. A child who could not read at all is 60 percentage points more likely to read letters after attending the reading class. A child who could read only letters at baseline and attended the camp is 26 percent more likely to read stories. Thus, the effect on those who could already read letters is mainly to allow many of them to directly switch to the story level. Children who were able to read at the word or paragraph level are 61 percent more likely to still read at the word or paragraph level, and 46 percent more likely to read at the story level (though this last effect is not significant). These are very large effects. In fact, they had not much scope to be larger. Adding the endline reading level in the comparison group (column 2) to the point estimate of the treatment effects (column 7) implies that *every child* who could not read anything at baseline but attended a reading class could read letters at the endline, and almost every child (98 percent) who could read at the word or paragraph level can now read at the story level. The only way to make the program more effective would be to increase the proportion of children who benefit from it. Almost 35 percent of those who could read letters at baseline and attended the reading class are able to read at the story level.

In summary, the reading program, which offered the villagers an alternative form of participatory action, where a single individual could directly affect learning outcomes outside the school system, did lead to dramatic increases in reading ability for those who attended. These results confirm Pratham's intuition that, combined with the traditional school system, a two- to three-month camp attended two hours a day is sufficient to get many children who could not read fluently (the letter readers) to read fairly fluently. Children who start with nothing can be taught letters. This suggests that either a second camp would be needed for them, or that they are harder to teach. Not surprisingly, there is not much evidence of an effect of the reading camps on math (although there is a surprising 2 percentage point increase in the number of children who can divide in treatment 3 villages (Table 4, panel F)). These results are important in and of themselves because they suggest that the Pratham intervention, a large-scale intervention, which today reaches millions of children in India, is an extremely cost-effective way to improve test scores. They are also important because they suggest that teaching a child to read is not particularly difficult. If a village level volunteer with a grade 10 or 12 education can achieve this goal after four days of training, the failure of the government schools to achieve it, arguably, owes more to a lack of incentives or motivation, than to the innate difficulty of the task.

However, not everyone who should have attended "Read India" classes did so, and, as a result, the effects of the program appear more muted when aggregated at the village level. The next step for Pratham therefore seems to be to find ways to effectively increase the outreach of the program, while maintaining its effectiveness. In ongoing work, we are evaluating the impact of training the teacher in the reading method.

V. Conclusion

"Citizen participation" is often touted as a general purpose solution to the many deficiencies of publicly provided services. Aid agencies, such as the World Bank,

are now recommending, and often requiring, community participation in government service delivery programs, and many developing country governments are beginning to include participatory institutions into their health and education reform efforts. Whether participation can be achieved through top-down policy design or external interventions, and further, whether it can be effective in improving service delivery or development outcomes, remains an open question on which rigorous evidence is beginning to emerge.

The results from this study show contrasting results. Neither providing information on the channel of interventions available to villagers, nor helping citizens gather information on the status of education in their villages, led to greater involvement of parents in the school systems, or to private responses (e.g., exit, tutoring, volunteering). Not surprisingly then, in these two groups, there was no impact on learning. In contrast, in the villages in which the "Read India" intervention was conducted, there was a remarkable community participation in response to the offer of being trained in a teaching tool, something that gave the volunteers (presumably with the support of some parents) the ability to directly improve educational outcomes for a group of village children, without directly engaging with the school systems. More than 400 community members volunteered to take up the tool, and held reading camps in which almost 7,500 children enrolled in the study area. These camps were remarkably effective in teaching illiterate children to begin to read.

Thus, it was possible to encourage effective collective action by providing a specific pathway to influencing outcomes that was not reliant on transforming the existing political or educational system. The findings that general information and mobilization campaigns to improve the public sector do not work, but direct action can be motivated by offering a specific way to act, are consistent with the findings of other studies that evaluate the effectiveness of interventions designed to improve public services through participation. In India's recent educational history, there have been cases of successful campaigns based on massive community mobilization and action. One such example is the adult literacy campaigns of the late 1980s and early 1990s. In recent studies, Banerjee and Duflo (2006) find no effect of alerting the community of the absence of the health worker in India, and Olken (2005) finds that increasing attendance at community meetings did not reduce overall corruption on road projects in Indonesia, but it reduces the incidence of unpaid labor. Villagers were able to complain about their own labor not being paid, but not to monitor the amount of material that disappeared. Furthermore, he finds that anonymous comment forms did not reduce corruption when they were distributed through the political hierarchy but were effective when widely distributed (through school children). Duflo, Dupas, and Kremer (2007) found that when school committees in Kenya were given funds specifically to hire an extra teacher over whom the committee had direct control, they did hire the teacher, and this led to an improvement in test scores. Moreover, the effects were larger when the school committees were specifically trained on how to monitor the extra teacher, and reminded that it was within their power to fire and replace her. In contrast, in a prior study in the same setting, Kremer and Vermeersch (2005) did not find any impact from encouraging the school committee to monitor the

regular teachers.¹³ Finally, in a recent study which is closely related to this work, Tahir Andrabi, Jishnu Das, and Asim Ijaz Khwaja (2009) study the impact of providing parents with reports cards containing information on the learning level of their children, and that of others in the communities in rural Pakistan. Similar to the UP context, there is an active private school market, and government schools perform poorly relative to those schools. Like us, they find that their intervention had no effect on movement out of government schools. Furthermore, they found that the intervention did not lead to an improvement of test scores in government schools, but the test scores did improve in the private schools that were initially performing poorly. Thus, this is another instance in which an information intervention led parents to take action when it was possible to do so directly (they could have direct access to the director of the private school), even as they were not able to have an influence on the government system.

Our results contrast with those of an intervention in the health sector in Uganda that also seems in many ways to be very similar to ours (Björkman and Svensson 2009). Communities in Uganda were provided with baseline information on the status of health services in public facilities. Over the course of several days facilitators used the information to generate conversations about the quality of care in the community and between the community and the providers. The project was implemented in 25 communities that had been randomly selected out of 50. Björkman and Svensson (2009) find that the existing beneficiary control institutions, Health Users Management Committees (HUMCs), were inactive at baseline, much like VECs in UP. However, in treatment communities (unlike in our study), action was taken by communities to reform and rejuvenate them. The action included firing and replacing many members of the existing community health committees. Systematic monitoring by the community of health clinics was often organized. Both provider attendance and quality of service measures (including wait time and quality of care) improved. The final result was an increase in the immunization rate and a substantial drop in child mortality.

There could be many reasons why it was possible to increase the involvement of citizens with the public sector in the Uganda case and not in UP, and it is difficult to tease them out: the political set up (Ugandans may have been more confident that the health hierarchy would respond to them), the fact that nurses are often local while teachers (except Shiksha Mitras) are generally drawn from outside the community, the outcome (in the case of health, citizens may be more able to individually demand a service when they visit the health facilities), and the fact that the intervention directly involved the local elite (the dispensary are large, and being a member of the HUMC is a powerful position, unlike being a member of the VEC in India). By voting to replace the old HUMC members with more motivated members, the

¹³ Note that in our setting as well, VECs were informed that they could request a Shiksha Mitra. There was an effect of intervention 2 on the hiring of a Shiksha Mitra, but the effect was fairly small (0.22), and they did not appear to have monitored those teachers more effectively. However, unlike in the Kenyan case, they were not directly handed the resources to do it, or the control to directly fire them. They were just told that they had the option to request money, and their input is taken into account in renewal decisions. Thus, the action proposed was much less straightforward.

citizens were able to have an influence on the process that the VEC does not have in India.

Whatever the explanation, it seems clear that the current faith in participation as a panacea for the problems of service delivery is unwarranted. The results seem to depend, in very complex ways, on the details of the intervention and the contexts. An intervention designed according to the best practice rules failed to have any impact on the public education sector in India. It is possible that participation can be made to work on a more systematic basis in various contexts, but it would take a lot of patience and experimentation to understand how to vary the interventions as a function of the context. On the other hand, a more optimistic conclusion is that even in a setting where information and mobilization did not lead citizens to engage with the public delivery system, it was still possible to harness their energy to improve the final outcome by offering them a concrete action plan. This suggests that in settings in which the public service delivery system is entirely unresponsive to beneficiaries, identifying innovative ways to foster and channel local action may be the most effective way to improve the final outcomes. Pratham's "Read India" program is a particularly powerful example of such an intervention.

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