

# Remedying Education

Paper by Banerjee, Cole, Duflo, Linden

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# Discussants for today

```
IES[c(sample(1:10,1), sample(11:20,1),  
       sample(21:30,1)), 2:4]
```

```
## # A tibble: 3 x 3
```

##	Email	Name_1	Name_2
##	<chr>	<chr>	<chr>
## 1	sandysr8@gmail.com	Sandeep	Kumar
## 2	shikha.singh2711@gmail.com	Shikha	Singh
## 3	sutanukasarkar197@gmail.com	Sutanuka	Sarkar

Requested to comment after presentation. Key points being made, agree / disagree, connections, add something, etc.

Of course, anyone can come in at any time.

# Motivation

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  2. Computer-Assisted Learning (Vadodara only)



## Two treatments

The treatments were not simply transferred from experiments elsewhere but evolved out of the local context

1. Balsakhi works with children on basic skills
2. Computer-Assisted Learning (Vadodara only)

# Balsakhi and Computer Assisted Learning: local innovation

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Balsakhi

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- ▶ core competence

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## Computer assisted learning

- ▶ In 2000 government delivered 4 computers to each municipal government-run primary schools in Vadodara



# Balsakhi and Computer Assisted Learning: local innovation

## Computer assisted learning

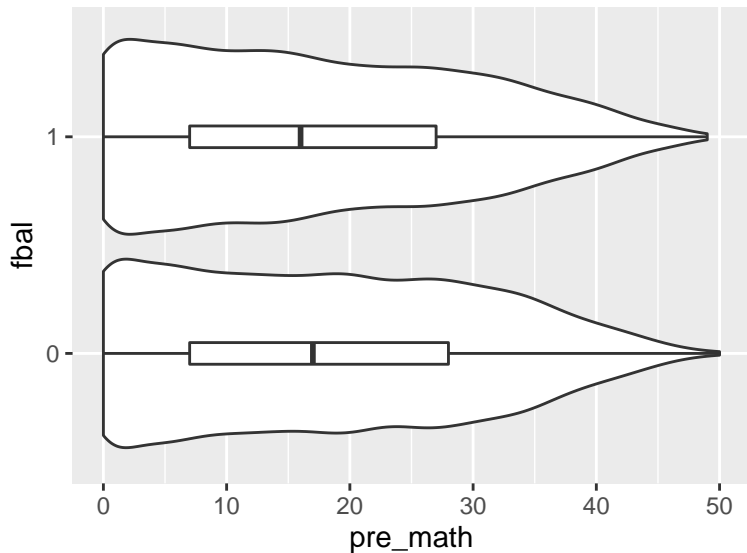
- ▶ In 2000 government delivered 4 computers to each municipal government-run primary schools in Vadodara
- ▶ Survey by Pratham in June 2002: very few of these computers were actually used by children

# Balsakhi and Computer Assisted Learning: local innovation

## Computer assisted learning

- ▶ In 2000 government delivered 4 computers to each municipal government-run primary schools in Vadodara
- ▶ Survey by Pratham in June 2002: very few of these computers were actually used by children
- ▶ Pratham partnered with local software company

# Balance on pre-treatment variable math score



# Effects

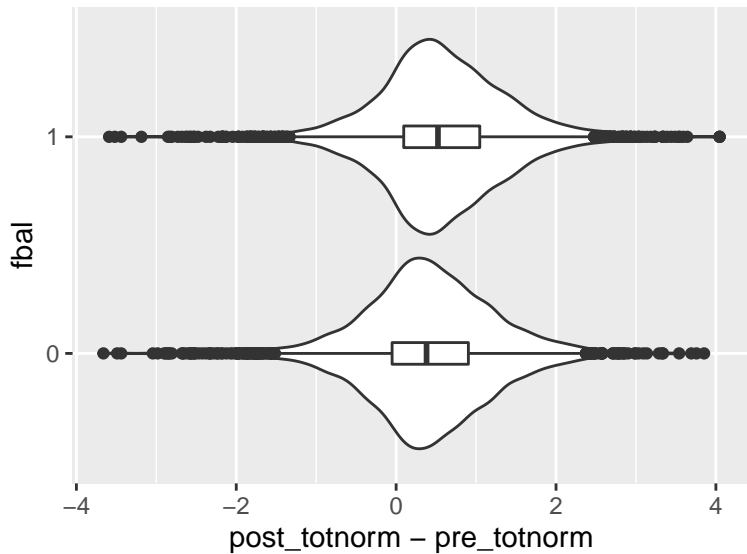
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- ▶  $D$  is treatment dummy

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$$y_{igjPOST} - y_{igjPRE} = \lambda + \delta D_{jg} + \theta y_{igjPRE} + \epsilon_{igjPOST} \quad (1)$$

# Effect of Balsakhi



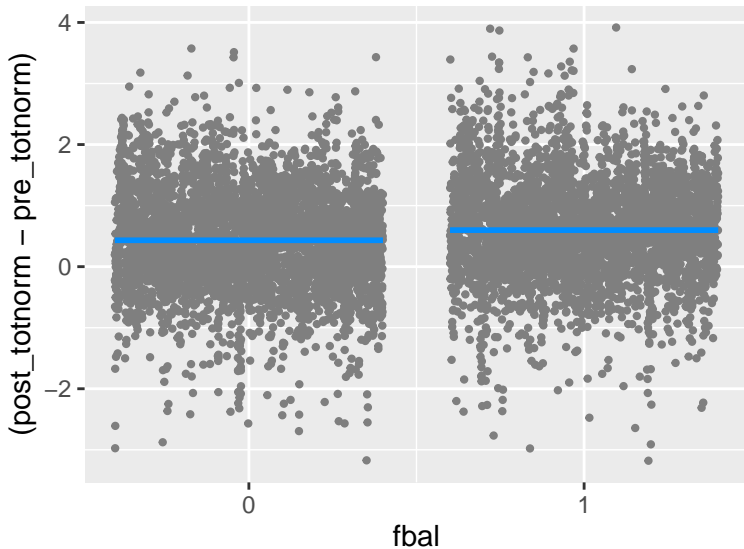
# Effect of Balsakhi

```
library(texreg) texreg(modB1r, ci.force = T,  
ci.test = NULL)
```

	Model 1
(Intercept)	0.41 [0.33; 0.48]
fball	0.17 [0.08; 0.25]
pre_totnorm	-0.20 [-0.23; -0.16]
R <sup>2</sup>	0.06
Adj. R <sup>2</sup>	0.06
Num. obs.	8065
RMSE	0.82
N Clusters	98

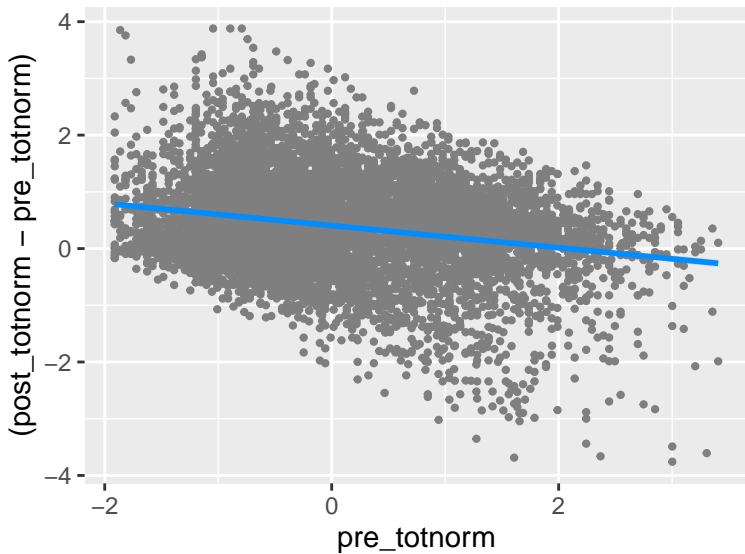
Table: Statistical models

# Effect of Balsakhi

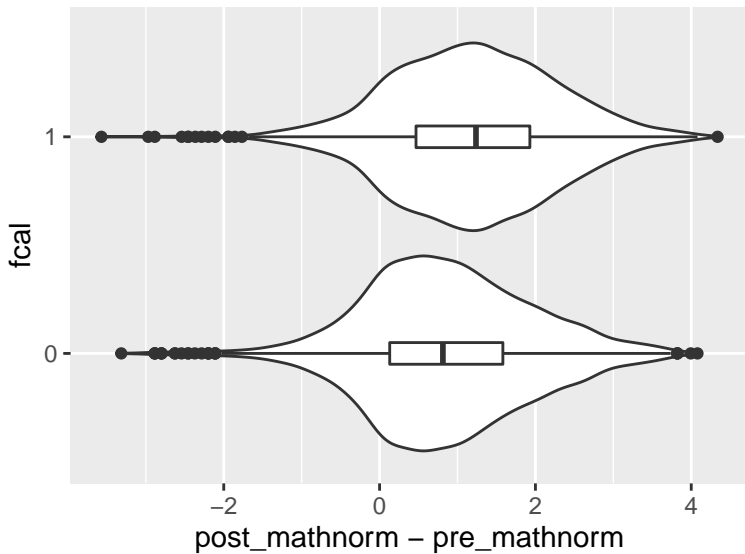




# Effect of Balsakhi



# Effect of CAL



# Effect of CAL

```
texreg(modC1r, ci.force = T, ci.test = NULL)
```

	Model 1
(Intercept)	0.89 [0.77; 1.02]
fcal1	0.30 [0.15; 0.45]
pre_mathnorm	-0.42 [-0.46; -0.37]
R <sup>2</sup>	0.17
Adj. R <sup>2</sup>	0.17
Num. obs.	5852
RMSE	0.97
N Clusters	122

Table: Statistical models

# Conclusion

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Authors: do effects decay over time?