

HEART

HEALTH & EDUCATION ADVICE & RESOURCE TEAM

Helpdesk Report: School Governance and Learning

Date: 28.10.13

Query: What is the effect of capitation grants on learning achievement? What contextual factors (e.g. school-level accountability reforms) are associated with an effect on learning achievement?

These helpdesks were designed to enable an extensive search for evidence on various methods for improving learning. There are a series of six similar reports, each is based on an edit of a literature search for their chosen method. After the initial search had been done the search fields were expanded to include further search engines and search methods, for more information please see the search strategy section of the report.

The list of methods searched in the series are: textbooks, teacher training, infrastructure and basic facilities, school leadership, school governance and student performance data.

Enquirer: DFID

Content

1. Screened results from search strategy
2. Additional resources
3. Search strategy
4. Screening method

1. Screened results from search strategy

A total of 5 documents were assessed as potentially relevant.

Pitfalls of Participatory Programs Evidence from a Randomized Evaluation in Education in India

Abhijit Banerjee, Rukmini Banerji, Esther Duflo, Rachel Glennerster, Stuti Khemani (2010)
American Economic Journal-Economic Policy, 2 (1), 1-30
Available at: <http://www.nber.org/papers/w14311>

Participation of beneficiaries in the monitoring of public services is increasingly seen as a key to improving their quality. We conducted a randomised 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.

Methods

Primary

Non-Experimental

Short-Run Learning Dynamics under a Test-Based Accountability System: Evidence from Pakistan

Felipe Barrera-Osorio and Dhushyanth Raju (2010)

World Bank Education Policy Research Working Paper 5465

Available at: <http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5465>

(This document is also included in the data availability return)

Low student learning is a common finding in much of the developing world. This paper uses a relatively unique dataset of five semi-annual rounds of standardised test data to characterize and explain the short-term changes in student learning. The data are collected as part of the quality assurance system for a public-private partnership program that offers public subsidies conditional on minimum learning levels to low-cost private schools in Pakistan. Apart from a large positive distributional shift in learning between the first two test rounds, the learning distributions over test rounds show little progress. Schools are ejected from the program if they fail to achieve a minimum pass rate in the test in two consecutive attempts, making the test high stakes. Sharp regression discontinuity estimates show that the threat of programme exit on schools that barely failed the test for the first time induces large learning gains. The large change in learning between the first two test rounds is likely attributable to this accountability pressure given that a large share of new program entrants failed in the first test round. Schools also qualify for substantial annual teacher bonuses if they achieve a minimum score in a composite measure of student test participation and mean test score. Sharp regression discontinuity estimates do not show that the prospect of future teacher bonus rewards induces learning gains for schools that barely did not qualify for the bonus.

Methods

Secondary

Non-systematic review

School Inputs, Household Substitution, and Test Scores

Jishnu Das, Stefan Dercon, James Habyarimana, Pramila Krishnan, Karthik Muralidharan and Venkatesh Sundararaman (2011)

NBER Working Paper No. 16830

Abstract available at: <http://www.nber.org/papers/w16830>

Empirical studies of the relationship between school inputs and test scores typically do not account for the fact that households will respond to changes in school inputs. We present a dynamic household optimisation model relating test scores to school and household inputs, and test its predictions in two very different low-income country settings--Zambia and India. We measure household spending changes and student test score gains in response to unanticipated as well as anticipated changes in school funding. Consistent with the optimisation model, we find in both settings that households offset anticipated grants more than unanticipated grants. We also find that unanticipated school grants lead to significant improvements in student test scores but anticipated grants have no impact on test scores. Our results suggest that naive estimates of public education spending on learning outcomes that do not account for optimal household responses are likely to be considerably biased if used to estimate parameters of an education production function.

Methods

Primary

Non-experimental

Cost-Effectiveness of Government Inputs to Schooling: Technical and Policy Contexts

Lynn Ilon (2004)

Compare, 34 (1), 87-100

Available at: <http://www2.fiu.edu/~ilon/publications/Cost-effectiveness%20of%20government%20inputs%20to%20schooling.pdf>

This article presents a study of the cost-effectiveness of government inputs in raising achievement scores in Bangladeshi primary schools. The analysis itself involves three steps: regression analysis, cost-analysis and simulation analysis--each built on the previous step to identify the most cost-effective government inputs. The paper describes each step and the results of each step. The results are, nonetheless ambiguous. The paper posits that these ambiguities derive from the policy context in which the study was designed and executed. This study suggests that there are hidden costs when research designs and methodologies are chosen in order to minimize political/policy risk.

Methods

Secondary

Non-systematic review

The Power of Information in Public Services: Evidence from Education in Uganda

Ritva Reinikka and Jakob Svensson (2011)

Journal: Journal of Public Economics, 95 (7-8), 956-66

Abstract available: <http://www.sciencedirect.com/science/article/pii/S0047272711000223>

In this paper we argue that innovations in governance of social services are an effective way to improve outcomes such as attainment of universal primary education. To test this hypothesis we exploit an unusual policy experiment: a newspaper campaign in Uganda aimed at reducing the capture of public funds by providing schools (parents) with systematic information to monitor local officials' handling of a large education grant program. Combining survey and administrative data, we show that public access to information can be a powerful deterrent to the capture of funds at the local level and that the reduction in the capture of funds that resulted had a positive effect on school enrolment and learning outcomes.

Methods

Secondary

Non-systematic review

2. Additional resources

The following resources were identified through other helpdesk reports and Google scholar.

Public Funding in the Educational Sector and its Effect on Test Scores. Evidence from the Primary Education Sector in Uganda

Martina Björkman (2003)

Publisher unknown.

Available at: http://www.eea-esem.com/papers/eea-esem/2004/2342/testscorepaper_dec03.pdf

This paper uses a difference-in-difference approach to evaluate a public policy programme in the primary education sector in Uganda and more specifically, if it had an effect on the pupils educational performance, i.e. on average total test scores in the standardised test. The

programme was introduced in the 1990s by the government of Uganda, and the key component in the programme was a per-student capitation grant disbursed directly to the schools. In this study I evaluate if the public grants disbursed to the primary schools had any effect on the district average test score in the Primary Leaving Exam. The effect is estimated on a district level and the study uses the variation between districts in programme exposure to identify treatment and non-treatment district. I find the per-capitation grant to be effective: on average, pupils in districts which were highly exposed to the per-capitation grant programme scored 1.46 points better in the Primary Leaving Exam than pupils in districts that were less exposed to the programme. This corresponds to an improvement of roughly 5 percent in test score of the average pupil in Uganda. The study evaluates the difference-in-difference estimate by using both a binary variable on the independent variable, as well as a continuous variable, and the findings are strongest when using the continuous variable. Further, the result is robust to controlling for income per capita.

Methods

Secondary

Non-systematic review

Does Money Matter for Student Performance? Evidence from a Grant Program in Uganda

Martina Björkman (First version 2004, this version 2006)

IGIER

Available at: <ftp://ftp.igier.uni-bocconi.it/wp/2007/326.pdf>

In response to extensive corruption in the education sector, the Government of Uganda began to publish newspaper ads on the timing and amount of funds disbursed to the districts. The intent of the campaign was to boost schools' and parents' ability to monitor the local officials in charge of disbursing funds to the schools. The mass information campaign was successful. But since newspaper penetration varies greatly across districts, the exposure to information about the program, and thus funding, differ across districts. I use this variation in program exposure between districts to evaluate whether public funds have an effect on student performance. The results show that money matters: On average, students in districts highly exposed to the information campaign, and hence to the grant programme, scored 0.40 standard deviations better in the Primary Leaving Exam (PLE) than students in districts less exposed to information. The results are robust to controlling for a broad range of confounding factors.

Methods

Secondary

Non-systematic

RECOUP Working Paper 16. The Financing and Outcomes of Education in Ghana

Nii Moi Thompson and Leslie Casely-Hayford (2008)

RECOUP

Available at: http://r4d.dfid.gov.uk/PDF/Outputs/ImpOutcomes_RPC/WP16.pdf

In 1987, the Government of Ghana embarked on a set of educational reforms which culminated in the reduction of pre-tertiary education from 17 to 12 years and the introduction of measures to improve access, equity and quality at all levels of the educational system. The reforms focused primarily on basic education, which had undergone a decade of decline in quality, but higher levels of education were also given some attention. The reforms were launched at a time of a severe economic downturn - the economy had posted three successive years of negative growth - and a diminished capacity of government to finance development. In response, donors became increasingly involved in the provision of finance

and technical assistance. As new modalities of aid began to be established, technical and financial assistance was provided to the government for both the preparation and implementation of the reforms. Over the course of the reforms, total donor assistance is estimated at between US\$1.5 billion and US\$2.0 billion. As the economy began to recover substantially from its malaise of the 1980s, the government's education sector expenditure, as a share of GDP, increased from 1.4 per cent in 1987 to 5.7 per cent in 2006, albeit remaining lower than the 6.4 per cent recorded in 1976.

This study documents a mixed record of implementation and outcomes of the reforms, with some indicators showing highly uneven improvements over two decades. As regards primary enrolments, for example, the Gross Enrolment Ratio (GER) increased from 76 in 1987 to 79 in 1991, but fell back again to 73 by 1997. By 2001, the ratio had recovered to 80 but then slid to 78 by the 2003/2004 academic year. Participation in basic education, which comprises both primary and junior secondary schooling, remained "free and compulsory" over the period.

The introduction of capitation grants for schools in September 2005 reduced direct costs to households by replacing the various levies that schools imposed on parents for extra-curricular activities. This led to a 17 per cent increase in primary enrolments nationwide (with GER rising to 86) in 2005/6. This increase in school enrolments, while desirable in terms of moving the country towards meeting its objective of providing universal basic education for all Ghanaian children of school-going age, was followed, predictably, by a decline in education quality as the provision of additional teachers, facilities, and logistics lagged behind the capitation grant.

A fresh set of educational reforms, scheduled to commence in September 2007, is intended to address these problems. Issues of funding adequacy, coordination and sustainability of donor financing for these reforms, however, remain largely unresolved - especially as donor disbursements in recent years have fallen short of commitments.

Methods

Secondary

Non-systematic review

Improving Learning in Primary Schools of Developing Countries: A Meta-Analysis of Randomized Experiments

Patrick J. McEwan (2013)

Wellesley College

Available at: <http://academics.wellesley.edu/Economics/mcewan/PDF/meta.pdf>

(Included in both textbooks and improved learning and teacher training search results)

I identified and coded 76 randomised experiments conducted in developing-country primary schools from the mid-1970s to 2013. The experiments evaluated the impact of 110 school-based treatments on language and mathematics test scores, as compared with "business as-usual" in the same settings. The treatments included instructional interventions, health interventions, and incentive-based interventions. On average, monetary grants and deworming had effects that were close to zero and statistically insignificant. Nutritional treatments, treatments that provided information to parents or students, and treatments that improved school management and supervision had small mean effect sizes (0.04-0.06) that were not always robust to controls for study moderators. The largest mean effect sizes included treatments with instructional materials (0.08); computers or instructional technology (0.15); teacher training (0.12); smaller classes, smaller learning groups within classes, or ability grouping (0.12); student and teacher performance incentives (0.10); and contract or volunteer teachers (0.10). Metaregressions that controlled for treatment heterogeneity and other moderators suggested that the effects of materials and contract teachers, in particular,

were partly accounted for by composite treatments that also included teacher training and class size reduction. A caveat is that interventions like deworming and school lunches often affected enrolment and attainment independently of learning, implying that student time is not always used productively in schools. There is insufficient data to gauge the relative cost-effectiveness of categories of interventions.

Methods

Secondary
Systematic review

Effects of Capitation Grant on Education Outcomes in Ghana

Robert Darko Osei, Gertrude Adobea Owusu, Freda E. Asem and Robert Lawrence Afutu-Kotey (2009)

University of Ghana

Available at: <http://bit.ly/17j8QA7>

This study provides an assessment of how capitation grant is impacting on key education outcomes in Ghana. In particular it provides an empirical platform for assessing how this policy is contributing to the achievement of the MDGs, and more. The key education outcome indicators which form the basis of the study are gross enrolment rates at the Junior High school level, the pass rates for the national examinations at the Junior High school level and the gap in the examination performance of boys and girls. It employs an econometric estimation model to assess how capitation grant affects these variables. Using district level data over the period 2005-2007 and across the country, the study finds that capitation grant have not had any significant effect on these key education outcomes. The study concludes by noting that although the results are not consistent with a priori expectations, the findings may reflect the fact that the capitation grant in Ghana only started in 2005 and so it is too early to begin to see its effects. The inability of the study to account for demand-side factors may also be contributing to the results. However the study notes that these results may be a pointer to the fact that capitation grant alone cannot deliver on important education outcomes as enshrined in the MDGs.

Methods

Secondary
Non-systematic Review

3. Search strategy

Databases and websites searched:

- Education Resources Information Centre (ERIC)
- British Education Index (BEI)
- Web of Knowledge – limited to Social Sciences Citation Index only
- R4D DfID Research For Development
- Gov.uk: Publications section and DFID evaluation reports
- 3ie Systematic Review Database
- 3ie Database of Impact Evaluations
- The Campbell Library
- EPPI Centre
- Google Scholar

Search strategy concepts

The search strategy was tailored to the functionality of the different databases searched. In searching the academic databases, ERIC, BEI and Web of Science, search strings were

developed for the search concepts, school governance, DFID priority countries and Learning Achievement and these were combined. Both keyword and subject heading searches were carried out. Please see Annex C for the full search strategy for these databases. Other databases had more limited search functionality and were searched within topic/ sector areas e.g. Education or using fewer keywords.

The full search strategies for ERIC, BEI and Web of Science are included in Annex B. Please see the following table for summaries of the search strategies and results.

ERIC, BEI and Web of Science

Database and Dates covered	Date searched	Concept search strategy	Hits	Notes	LMIC hits	Tier-2 countries added (21-10-13)
British Education Index (BEI) 1975 - present	09/10/13	As ERIC but No primary or secondary school limit included	30			1
Education Resources Information Centre (ERIC) 1966- present	7-10-13	School Governance and Dfid countries and Learning Achievement. Limited to Primary & Secondary Education, yrs 2000-2013	111		~1000	40
Science Citation Index & Social Sciences Citation Index WOS 1900 - present	10-10-13	Slight modifications as compared to ERIC search	73		296	7

Further detail on the search methods are outlined in Annex C.

4. Screening method

Studies were assessed against the following inclusion criteria:

- Geography: DFID priority countries. A list of priority countries is provided in Annex A. Both Tier 1 and Tier 2 countries were included
- Language: Limited to English language only
- Relevance: Studies which address the thematic research question i.e. **what is the effect of capitation grants on learning achievements?** and which look at **effects** on learning achievement
- Study design: Primary empirical studies (quantitative or qualitative) and secondary analysis (systematic reviews or rigorous literature reviews) which

meet the relevance criterion were included. Case studies, theoretical, conceptual and policy papers were excluded.

- Publication date: Within last 10 years

Studies were screened on the basis of the abstract. Where studies were potentially relevant but their adherence to the inclusion criteria could not be fully ascertained from the abstract (for example, evaluation methodology was not stated), they were included in the list, so they can undergo further screening from the full text at a later date.

Study design was described using the DFID How To Note: Assessing the Strength of Evidence:

<https://www.gov.uk/government/publications/how-to-note-assessing-the-strength-of-evidence>

Authors

This query response was prepared by Laura Bolton, Judy Wright and Thomas Veale

About Helpdesk reports: The HEART Helpdesk is funded by the DFID Human Development Group. Helpdesk reports are based on 3 days of desk-based research per query and are designed to provide a brief overview of the key issues, and a summary of some of the best literature available. Experts may be contacted during the course of the research, and those able to provide input within the short time-frame are acknowledged.

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