

Of Probits and Participation: The Use of Mixed Methods in Quantitative Impact Evaluation

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1 Introduction

Techniques for rigorous quantitative impact evaluation are increasingly being brought to bear on development interventions – including, as the articles in this collection show, by official development agencies. The Independent Evaluation Group (IEG) of the World Bank has been a committed advocate of this move to greater rigour, but with its own mantra of ‘Rigorous and Relevant’, which is spelled out more fully as carrying out well-contextualised, policy-relevant studies which adopt best practice quantitative approaches.

There are several approaches to ensuring that a study is well-contextualised and policy-relevant. These include (1) adopting a theory-based evaluation approach, as proposed by Weiss (1998) and illustrated in the studies presented in Carvalho and White (2004), and White and Masset (2007); (2) working with programme implementers to ensure access to data and addressing questions of interest to them – something also well illustrated in de Kemp’s article on sector evaluations by the Policy and Operations Evaluation Department (IOB) in The Netherlands (de Kemp, this volume); and (3) having a good grasp of study context by adopting a mixed methods approach. This article addresses the last of these, providing examples of how such an approach has strengthened IEG’s impact evaluation work.

Part 2 of the article briefly outlines what constitutes a mixed methods approach. The subsequent section provides several cases illustrating the contribution of the qualitative side of mixed methods. Part 4 draws out some conclusions for practitioners.

2 The mix of methods in impact evaluation

A mixed methods approach is one which uses both quantitative and qualitative methods. Nearly all studies do this to some degree, so the question is rather the minimum acceptable level of application of each method, and the appropriate balance between the two. The current benchmark for valid impact estimates is that the study has a credible counterfactual, which means that it addresses the issue of selection bias where this is likely to be an issue, and other possible problems in making such estimates such as contagion (see IEG 2006). Meeting these requirements is technically demanding, focusing resources on econometric approaches; many of the new impact studies are being done by econometricians, not evaluators. In this sense, the balance of the mix is necessarily oriented toward the quantitative since arguments of the lack of credibility of many existing impact studies focus on their econometric shortcomings. The participatory impact assessments which became popular in the 1990s no longer pass muster for some of the most critical observers of aid effectiveness (most notably CGD 2006). But this necessity to find the right identification strategy (i.e. to successfully tackle possible selection bias) creates a danger that there will be no mix of methods at all, but a weakly contextualised study with limited policy relevance: just knowing if an intervention worked or not is not usually sufficient, we also want some idea of why, how, and at what cost. And knowing if it worked, without knowing the context within which it did so, limits the scope for generalisation and lesson-learning. Answering the ‘why’ question is where qualitative methods come in.

There is a spectrum of qualitative fieldwork, ranging from in-depth anthropological studies to day trips to project areas; the latter are often derided as 'development tourism'. But I believe that the full range of qualitative data should be drawn on in an impact study, and that so-called development tourist trips are very often the source of key insights. In general, I would suggest that impact evaluation needs to be supported by qualitative data of three sorts. First, a reading of relevant contextual literature – both anthropology and political economy – at an early stage of the evaluation design. It may be necessary to revisit this literature later on in the evaluation as the findings start to take shape. For *ex ante* impact studies (i.e. those designed at the start of the project, beginning with a baseline survey), I would strongly advocate embedding an anthropologist in the project area. This could be cheaply done by funding a PhD student. Second, I recommend commissioned qualitative fieldwork, by which I mean fieldwork using methods from the PRA toolkit. For examples, see the collection by Robert Chambers (1994a, b and c). My experience with these approaches has been mixed, resulting in a view that the quality of the work can be highly variable and direct personal involvement is needed at the early stages to help direct the work. The same applies to quantitative fieldwork; I am always present for the training and pilot and leave one of my core evaluation team members in the field for the duration of the survey. Possibly most importantly and certainly essentially, it is important to spend time in the field – meaning actual fields with plants and trees, not meeting project staff in the capital city – very preferably on a number of occasions as the study proceeds.

There have to be some minimum requirements with respect to the qualitative approaches adopted to qualify as a mixed methods approach. I define this threshold as follows: a study qualifies as adopting a mixed methods approach if qualitative data collection and analysis are explicitly included in the study design. It should usually be clear to any reader of the study the role played by the qualitative work in shaping the findings. It is very likely that qualitative practitioners will find the threshold I set rather low. In defence, I argue that a little is better than none. Moreover, a little is feasible, and will provide a basis for an incremental movement to a stronger integration of methods as experience develops.

In Carvalho and White (1997), we identified three key ways to combine quantitative and qualitative

approaches: (1) integrating methodologies; (2) confirming/reinforcing, refuting, enriching, and explaining the findings of one approach with those of the other; and (3) merging the findings of the two approaches into one set of policy recommendations. Examples of integration include: using quantitative survey data to determine the individuals/communities to be subject to qualitative study; using the quantitative survey to design the interview guide of the qualitative work; using qualitative work to determine stratification of the quantitative sample; using qualitative work to determine the design of the quantitative survey questionnaire; and using qualitative work to pretest the quantitative survey questionnaire. 'Confirming/reinforcing' or 'refuting' are achieved by verifying quantitative results through the qualitative approach. 'Enriching' is achieved by using qualitative work to identify issues or obtain information on variables not obtained by quantitative surveys. 'Examining' refers to generating hypotheses from qualitative work to be tested through the quantitative approach. 'Explaining' involves using qualitative work to understand unanticipated results from quantitative data. In principle, each of these mechanisms may operate in either direction – from qualitative to quantitative approaches or vice versa. 'Merging' involves analysing the information provided both by the quantitative approach as well as the qualitative approach to derive one set of policy recommendations. The next section shows examples of each of these uses of mixed methods.

3 Mixed methods in practice

3.1 You can't carry electricity on boats: rural electrification in Lao PDR

A common use of qualitative fieldwork is to help inform survey design – an example of integration of methods. Semi-structured discussions in the field can help design a structured instrument. I begin with an example where some basic field exposure appears to have been missing in survey design.

In our study of rural electrification, we analysed various existing data sets, including the baseline survey for a World Bank project in Lao PDR. Like most electricity utilities, Electricité du Lao (EdL) followed the least cost strategy of extending medium voltage (MV) cables along the line of road, running low voltage lines into communities with enough households of sufficient income to afford the household connection fee of around US\$100. Using the data to model which communities were connected, I expected that the three

variables – distance from road, distance from provincial headquarters (as the service was not yet fully extended along all major roads), and average community income – would explain most of the variation. But the R^2 remained stubbornly low to my various variable specifications, whilst a dummy variable for the three ethnic groups stayed mysteriously significant.

The reasons were soon revealed by a spot of development tourism. One morning I flew down to the south, meeting officials of EdL and the Ministry of Energy. In the afternoon we went to visit a village with electricity supplied by solar panels under the off-grid project component. We drove less than 10km out of town along a paved road, observing MV cables running along the road. We turned down an unpaved road for another couple of kilometres, the supply cables continuing to the village at the end of the road, nestled on the banks of the Mekong river. The off-grid community was just a little way off, but had to be reached by boat since it was on an island. So here we were just 10km from the provincial capital, not far from the road, and in a not particularly poor community. There was no grid connection, however, since it is not economic to run the connection across the river for less than 30 households. The following day I was taken 100km south to an area called 4,000 islands – more getting into boats from grid-connected riverside villages to reach unconnected islands. A key explanatory variable in the regression of whether a community was connected or not was whether it was on an island or not – but the survey's village questionnaire hadn't collected this piece of information. Questioning revealed that the same reasoning applied to communities on the other side of a mountain – they would not be connected although the distance to the nearest connected community might be quite short as the crow flies.

This insight also provides an example of qualitative information explaining an unexpected finding: the country's three ethnic groups live roughly in bands running the length of the country, one along the river, the second in the foothills, and the third in the mountains. The regression showed it was particularly this third group which was significantly less likely to be connected and hence the significance of the ethnic dummy.¹

3.2 Whose voice? Basic education in Ghana

My first impact study at IEG, of basic education in Ghana, provides several examples of mixed methods

in practice: the importance of understanding context, how quantitative data can challenge poorly executed qualitative work and how qualitative fieldwork can lead the quantitative work in useful directions.

The first bit of qualitative analysis was understanding the political context of the reforms. It was based on a reading of the political economy of Ghanaian reforms in the 1980s combined with the information available in project files. The background to the study was the need of the populist government of the PNDC (Provisional National Defence Council) under Rawlings to build a rural power base. It sought to do this through three programmes – rural roads, rural electrification and rural education – all of which were supported by the World Bank. From the Bank's point of view, the programme was part of its attempt to broaden the appeal of adjustment policies. Ghana was Africa's star performer in the 1980s. But at the international level concerns were being raised about the need for 'Adjustment with a Human Face.' UNICEF sent a mission to Ghana to discuss these issues and how Ghana might be a test case for the new approach. The support to education reforms – the Bank's first education sector adjustment programme anywhere in the world – was partly a response to these concerns.

From 1987, the government implemented a series of education reforms, which included reducing the length of pre-university education from 17 years to 12. These reforms had first been proposed by an official commission in 1972, but various governments had backed down from implementing them on account of political opposition from the middle classes, teachers, and the education bureaucracy. The later reforms also cut subsidies to both secondary and tertiary education, resulting in student protests. But the middle classes were not Rawlings' supporters and he was willing to take on this opposition. He appointed high-ranking party officials as Minister and, most importantly, a Deputy Minister who saw the reform process through. He sacked all seven directors of the Ghana Education Service (GES), replacing them with PNDC stalwarts, and brought in the army to distribute text books for the shortened new curriculum so it could not be sabotaged by reluctant GES staff. This was clearly not a case of donor-imposed reforms, but a government-led process facilitated by donor finance which was used for building schools, curriculum development (including printing textbooks for the new, shorter curriculum), and teacher training.

Fifteen years later, the middle classes still resent the reforms and complain that they have destroyed the education system, driving down quality. The usual key informants one meets, and indeed local counterparts in the study team, are from these groups and commonly share these views. So powerful were these voices that I had drafted a first chapter of the report whilst waiting for the survey data to come in. The chapter set the report up along the theme of, 'The Bank has invested nearly US\$300 million in basic education in Ghana with nothing to show for it, so what went wrong?' I aimed to develop an argument around how weak management structures prevented effective education, which fitted the conventional wisdom amongst education specialists whose projects sought to increase parental involvement in school management.

Once the data came in, I had to throw away the draft. Not only had, contrary to official data, enrolments risen across the 15 years,² but there had been a dramatic improvement in learning outcomes. In 1989, nearly two-thirds of primary school graduates had been illiterate; by 2003, the earlier figure of 63 per cent had fallen to just 19 per cent. Looking at the school survey, the reasons were not hard to find. The World Bank had constructed 8,000 classroom blocks around the country, either replacing existing stick, mud, and thatch structures which collapsed in heavy rain (something I had seen in the field) or building wholly new schools, thus reducing travel time and increasing access. In addition, over 35 million textbooks had been supplied, increasing textbook availability from one book per classroom in many schools to one book per child for English and Maths as the norm. Regression analysis showed these factors to play a substantial role amongst the variables driving higher educational attainment and achievement (confirmed in the cases of Uganda and Zambia in de Kemp's article in this volume). I had been misled by listening to the wrong voices – the voices of those who had indeed lost out from the reforms and were blind to its benefits which had mainly been felt by the majority in rural areas. In this case, the quantitative data refuted the biased qualitative data. But in this first study I had not planned systematic qualitative data collection, so I didn't have voices from rural areas to counter these middle-class views.

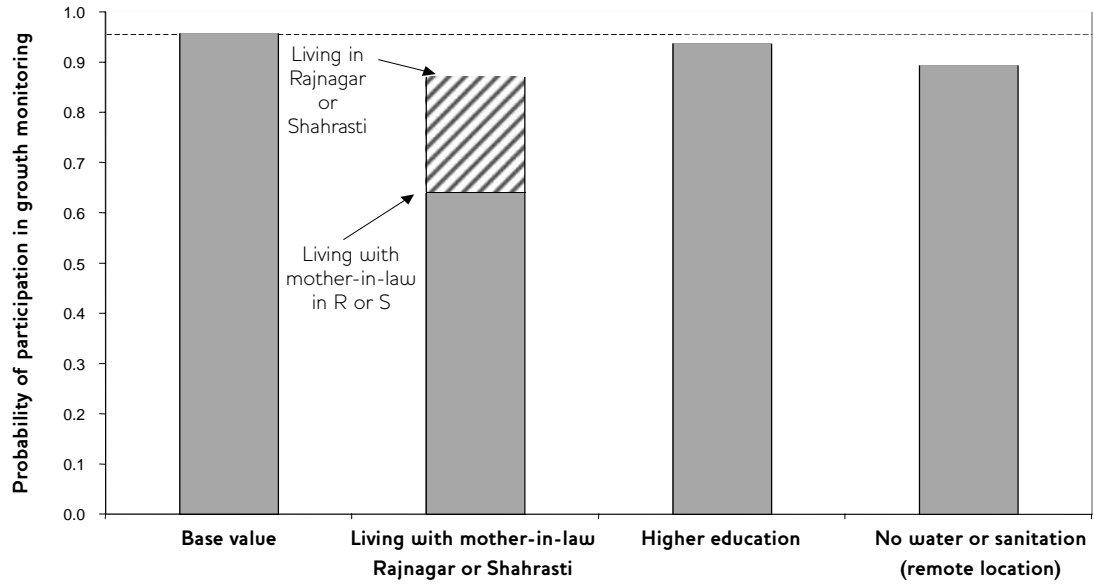
Of course, having nearly 20 per cent of primary graduates illiterate still represents a large problem to be tackled. A memorable day's development tourism

visiting the best and worst schools in Hohoe district (Volta Region) showed clearly the reason for this. Each year, fourth graders have a standardised English and Maths test. One of the top three schools in the district was that next to the district HQ. All teachers were present, having their lesson plans for the week inspected by the Head Teacher, as is meant to be done each Monday morning.³ The pupils, many of whom were the children of local government officials, were all dressed in uniform and there was a new classroom block being constructed with PTA contributions. In the afternoon, we visited the bottom-ranked school, for which the average score in the Maths test had been zero. The school was three hours walk from the main road, the last hour being along a single track path through the hills. When we arrived there was no teacher. Four teachers had been posted to the school, but only one had taken up his post. He had gone to town that day, we met him rushing back on our return to the road as word of our visit had reached him. No teacher meant there were no children in the school. But we could see the open-sided classroom, with a poor-quality chalkboard and a few logs for chairs.

That one day alone pointed very clearly to a largely unremarked tendency in Ghanaian primary education: a growing dichotomy in the public sector.⁴ Much was said about the supposed superior performance of private sector schools. But it was also clear that increased reliance on community and district funding was creating a two-tier public system. Schools in better-off areas could raise the money for school improvements, whereas those in poor areas could not do so and lacked the political connections to raise district finance. Another day's field trip had taken us to a small rural town where the local Assemblyman was also Chair of the School Management Committee and had got funds from the district for school improvement. We visited an off-road school about 10km away with no walls (this is where we got caught in the rain) and no school furniture. The question as to why they didn't get money from the district was replied to first with laughter and then they explained to me what was obvious to them. The Assemblyman was not bothered with people living out in the bush.

The Bank's projects had built a standard three-classroom structure consisting of a concrete platform, steel girder uprights, and a metal roof. There were no walls as the communities were expected to provide these themselves. Maybe it

Figure 1 Nutrition project participation by individual characteristics



should be obvious that classrooms are better with walls to avoid distractions and protect children from inclement weather. But then, not building walls may seem less necessary if you live in Accra in the country's coastal region where rainfall averages just 753mm per year; and a sensible saving for central project funds if you send your children to a school with annual PTA fees of cedi 10,000 (approximately US\$1) so the school can readily afford to construct walls. But the problems in the approach were soon apparent when we were caught in heavy rain in an open-sided classroom block in the Volta region, most of which is in Ghana's sizeable forest belt with annual rainfall of between 1,168mm and 2,103mm per year. Huddling in a group in the middle of the 'room' to avoid a soaking is not conducive to effective learning. But it is the contrast between schools which can and cannot afford to finance construction; the difference between those schools where the PTA collects millions of cedis in fees and those where it collects little or nothing that helps explain the huge differences in learning outcomes.

So Bank-financed improvements have helped improve school quality. But poorer communities cannot afford to complete the structures, leaving schools without walls, or without school furniture, including cupboards to store textbooks which

therefore go missing. This field experience pointed to a conclusion strongly supported by the quantitative data: the move to district- and community-based financing was leaving behind schools in remote and poorer communities which are unable to provide a proper education to their children, setting off a long-term process of leaving the poorest behind. The quantitative data make this point very clearly, but it is strongly reinforced by the comment of a teacher that, 'I would like to put posters on my walls but I have no posters. In fact, as you can see, I have no walls.' A USAID project at the time was promoting innovations such as putting desks in groups rather than rows but many schools had no desks. The IEG report thus argued that the move to local financing needed to be backed up by central resources for poorer areas. This idea was carried through to the Bank's next project which had a fund for precisely this purpose.

3.3 Living with your mother-in-law in rural Bangladesh

In Ghana, the context of Rawlings' political commitment to rural basic education was important since it guaranteed that teachers would be placed in schools, and improved efforts were made to ensure they were paid on time. When we turned our attention to health and nutrition in Bangladesh, we

were drawn to a different type of literature, namely anthropological studies of village life.

Part of our study concerned the Bangladesh Integrated Nutrition Project (BINP) which adopted a growth-monitoring approach. This requires monthly weighing of children from birth to 24 months and, if the child was severely underweight or its growth had faltered, enrolling their mothers into nutritional counselling sessions. However, the anthropological literature pointed to the widespread existence of joint families and the limited say in decision-making of women living with their mother-in-law (e.g. White 1992).

The importance of living with your mother-in-law was confirmed by our own participatory fieldwork. Available data showed a sizeable knowledge-practice (KP) gap, whereby women had apparently acquired the knowledge being disseminated by the project but failed to put it into practice. The fieldwork was designed to fill this gap. One instrument was semi-structured interviews, which began with a questionnaire on aspects of nutritional practice promoted by the project. The left of the page recorded knowledge and the right-hand side practice so the enumerator could quickly read off the areas in which there was a KP gap and then probe as to the reasons for this.⁵ Focus groups were also used to analyse the same issue and from these came the memorable quote, 'we'll start doing that once our mothers-in-law have passed.'

This insight was supported by analysis of the quantitative data. Household surveys usually include a module called the household roster which lists all household members, their sex, age, and relationship to the household head. With some careful unpacking of the data contained in this module it is possible to identify married women with children who live with their mother-in-law. We would not have done this detailed analysis were it not for the strength of evidence coming from the anthropological literature backed up by our own qualitative fieldwork. The Demographic and Health Survey included questions about women's say in decision-making: women living with their mother-in-law were significantly less likely than other women to have a say over purchases and cooking, supporting the policy conclusion that the project was mis-targeting its nutritional counselling if directed only at mothers of young children who almost certainly didn't do the household shopping

and may not have control over cooking what was bought. The policy conclusion was clear (and since has been adopted by the project): nutritional counselling needs to address a broader audience than mothers alone.

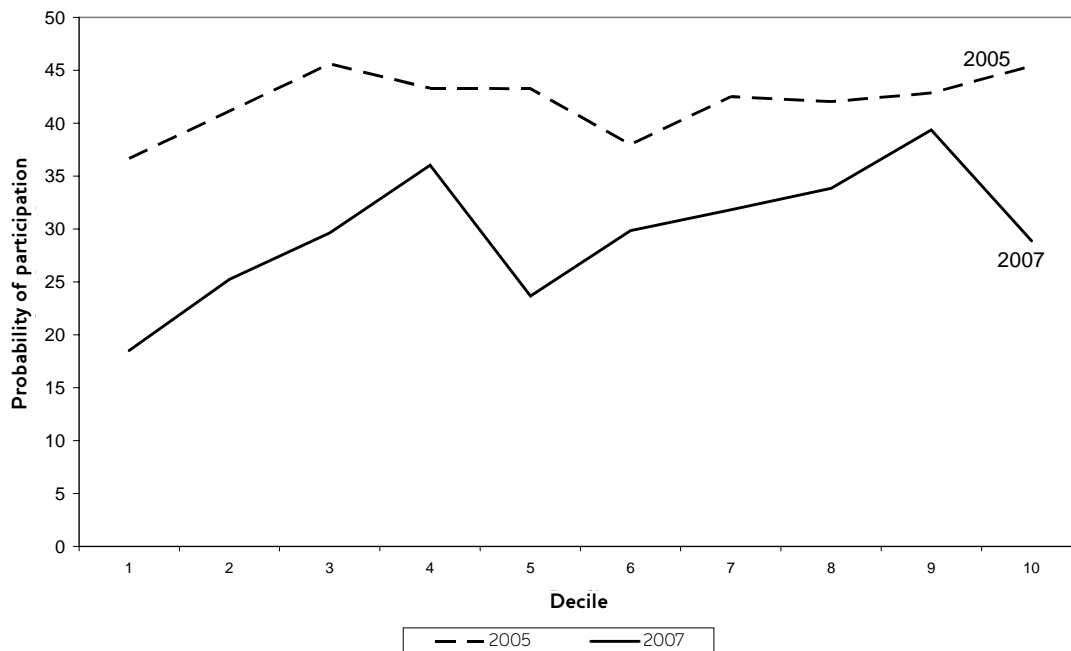
When it came to examining the impact of living with your mother-in-law on project participation, the effect appeared slight. However our own experience in the field suggested that women's mobility was less restricted in the western part of the country compared to the more conservative divisions in the east, notably Sylhet. Using an interactive variable to isolate those women living with their mother-in-law in these conservative areas suddenly revealed a substantial impact. The average participation rate for the project as a whole was close to 95 per cent, 88 per cent for women in Sylhet, dropping to just over 60 per cent for women living with their mothers-in-law in those areas (see Figure 1). Bangladesh's phenomenal success in reducing fertility was in part due to doorstep delivery of contraceptives, thus sidestepping the issue of women's mobility. In conservative areas such an approach might also be required for nutritional services.

3.4 Self-help groups in Andhra Pradesh

Since the mid-90s, the government of the Indian state of Andhra Pradesh has been encouraging women-only grassroots organisations at the village level called Self-Help Groups (SHGs). Women joining these groups are required to make a monthly contribution of Rs.30, that is a little under US\$1. These contributions fund revolving loans, but loans are also made from money lent to the SHG by the umbrella Village Organisation (VIVO) or from commercial banks under the 'bank linkages scheme'. By 2007, over 700,000 such groups had been formed, partly facilitated by two externally funded programmes supported by DFID and the World Bank which provided funds and technical training to SHGs.

IEG's evaluation of these programmes utilised panel data collected in 2005 and 2007. Responses to the village questionnaire, which listed all the SHGs in the village, confirmed a continued rise in the number of these organisations and a small rise in the average size of the groups over this two-year period. But the individual-level data showed a drop in participation in SHGs from 42 per cent of all eligible women in 2005 to just 30 per cent in 2007. There was thus a discrepancy between the village-level data, which

Figure 2 SHG membership by household wealth decile



showed SHG membership to be rising, and the individual data, which showed it to be falling. This apparent discrepancy was readily explained by the qualitative data we had collected alongside the quantitative survey. Entry to the village begins with a village meeting, attended by heads of many of the SHGs. When asked the number of SHGs, the response was almost invariably along the lines of, ‘there are 22 SHGs of which 8 are old and 14 since APRLP [the DFID project being studied], and 7 are not functioning.’ Once started, an SHG stays on the books even if it ceases to function inflating our village-level (and state-level) estimates of the number of SHGs.

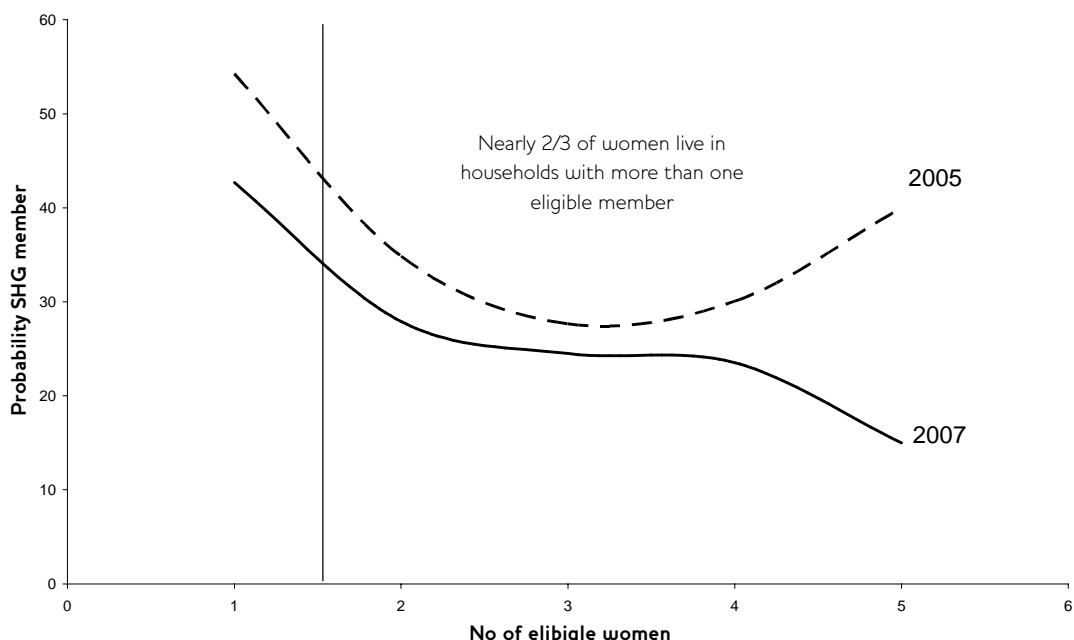
Had we anticipated this attrition of SHGs the survey could have included questions regarding the reasons for dropouts. But sadly, we did not anticipate it and so our quantitative survey design was flawed by not probing further about this important phenomenon. The lesson here is that having qualitative fieldwork preceding the quantitative so the former can inform the latter applies even for subsequent rounds of a panel survey.

But we had also undertaken a sizeable qualitative data exercise, including oral life histories from over 500

households (randomly selected on the basis of being the neighbouring household to a household in the quantitative survey, which had been randomly selected). Since qualitative data collection is not constrained by a prejudged design, these life histories revealed the factors behind dropout. These reasons were both at the group level – (1) groups with inadequate skills to maintain records did not qualify for project-funded loans, so disbanded as members saw no benefits, (2) groups with a high number of non-paying members or non-performing loans, which tended to be groups of predominantly poorer members, and (3) village-level factionalism, especially in the wake of local elections in 2006, after which some SHGs were deprived of funds in some villages – and the individual level – (1) mainly poorer households unable to meet the monthly contribution, but (2) also a reluctance to take loans for potentially risky productive investments (mainly the risk of purchasing livestock which die before a return is realised), and (3) sometimes a feeling that the group was not operating fairly.

These reasons turned our attention to the distributional profile of SHG membership. The intention of APRLP is to be inclusive. That is, it is not intended that SHGs should only have poor members,

Figure 3 SHG membership by number of eligible women per household



but that the poor should be included like anyone else. Indeed, it was recognised that SHGs formed in the nineties were likely to have an elite bias, so project activities focused on forming the so-called 'left-out poor' into SHGs. Hence we should expect no relationship between SHG membership and a household's poverty status. In 2005, this was largely the case with the exception being a lower participation rate amongst the bottom 10 per cent, which is not surprising as it includes those with few productive opportunities (people with severe disabilities and the very elderly). This is shown in Figure 2, which plots participation rate against decile, where deciles are defined according to a wealth index based on housing quality, ownership of land and livestock, consumer durables, and the value of jewellery. But given that the reasons for dropout mean that it has affected the poor most, by 2007 a gap had opened up, with participation rates for the upper deciles over twice those of the lower deciles. The qualitative fieldwork pointed to some possible policy responses to this problem, including support to illiterate groups in record-keeping (and adoption of simpler bookkeeping systems suitable for semi-literate), finding alternative payment arrangements for the poorest households (lower payments or not

requiring payment on a monthly basis), the need for animal insurance to accompany livestock loans, and defining a different (social protection) model to assist those unable to engage in productive activities.

Further policy implications came from the quantitative analysis of the membership decision. The government programme aimed to have an SHG in every village by 1995, every household to have one SHG member by 2000, and all rural women aged 18 and above to be in an SHG by 2007. The survey showed that the 2007 target is far from being met. One reason for this is that the decision to join an SHG is a household decision rather than an individual one. This is clearly shown in Figure 3, plotting participation rates against the number of eligible women in the household. In 2005, participation rates were close to 50 per cent for women who were the only female household member of eligible age, but only 20 per cent for those households with 2-4 eligible women (and less still for the few households with 5 eligible members, which had seen the sharpest dropout since 2005). The main reason is given by the qualitative data which show that SHG loans are seen as being to the household, so the household does not receive more loans as a result of

having more SHG members, and so sees little point in paying more than one set of monthly contributions. Over 60 per cent of women live in households with more than one eligible member, creating a substantial barrier to universal SHG membership. The policy implications are clear. Either revise the goal to achieving the 2000 target of each household having at least one member (which is currently only half met), or attempt to change village-level behaviour so that households with multiple members do receive multiple loans.

The examples from this study illustrate several points: how qualitative data reinforced the household survey data and helped explain and enrich it and also how the two data sources were merged to yield a powerful set of policy conclusions. The final example shows how quantitative data alone might be open to misinterpretation.

3.5 Social funds in Malawi and Zambia⁶

Social funds fall under the Bank's Community Driven Development (CDD) category. The IEG study included country case studies in Malawi and Zambia, both of which had projects which were based on community identification of sub-projects, implemented by the community using funds paid into a local bank account and supervised by local government staff. IEG's study included household surveys of 100 households in each of five social fund beneficiary communities in each country (and a similar number in non-beneficiary communities). Focus group-based qualitative fieldwork was also undertaken in these same communities. Finally, I spent a week in the field in each country, visiting about 25 beneficiary communities.

The ideal model of community-based social funds is that the community comes together and identifies a problem to be resolved by collective action combined with an appeal for external support. This view of how things should happen is contained in the operational manuals of the two social funds. Moreover, the view that this is indeed how things actually happen is strongly entrenched in the social funds in the two countries, amongst both the staff of the social fund agency and those directly involved in sub-project management.

But this 'hippy model' of community participation does not take into account the importance of an individual or small group in initiating the project and

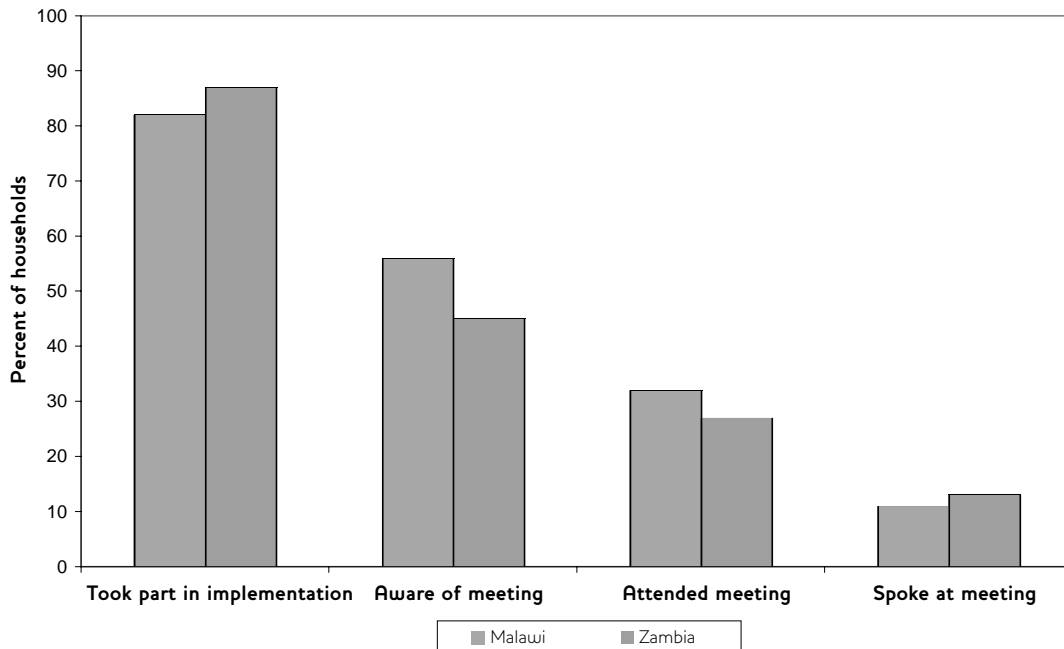
carrying it forward. This must be someone not only with knowledge of the social fund, but the social and other skills (good literacy and numeracy) to carry forward the application. In the words of one headmaster in Zambia, 'someone who is not afraid to enter offices'. This person is not the average villager, but more likely to be one of the few professionals in the community, such as teachers and health workers. We call such an individual 'the prime mover.' The role of this person is to provide the necessary link with the outside world, what Woolcock (1998) has called 'linking social capital.'

However, as outsiders, these people are not in a position to mobilise the community and it is here that traditional social structures come into play. The headmaster may work through the PTA or sometimes directly with the headman. Following a decision by a small group to apply for social fund support for the school, the PTA in Zambia will then seek the agreement of the village headmen, whereas in Malawi traditional leaders will mobilise the PTA. This decision is then announced at a village meeting (this is the meeting to 'decide' the project) and each village is allocated its contribution to the project. Once project implementation starts, all households are expected to contribute and the headmen keep a register. Fines are also imposed on those who do not contribute, such as additional workdays or more arduous labour on the chief's land, though the fine may be money or livestock such as a chicken.

Hence identification of a particular sub-project usually takes place before the community becomes involved. Focus groups bore this out. For example, the comments 'they (the community) started moulding bricks, but they have never sat down and discussed about what type of project to embark on', 'the community was told of the sub-project only after it was approved', and 'they had not been consulted with regard to the location of the borehole, but were just told to start providing bricks, sand, stones and wood', all demonstrate this.

The quantitative data showed a very clear picture. Households were heavily involved in project implementation but far fewer knew there had been a meeting about the project, still fewer attended, and only a small percentage spoke at the meeting (Figure 4). Taking these data alone may give a bad impression of the participatory process in these projects. But, as explained by the qualitative data, in

Figure 4 Participation in social funds in Malawi and Zambia



fact it works very well. It operates the way literature suggests outside interventions should – by utilising existing social structures (although this is not what the manuals say) and combining them through committees with literate ‘outsiders’ with bridging capital. The result has been a proliferation of small-scale local infrastructure, with a by-product of spurring the development of small-scale local private contractors.

First, only a small group of people is actively involved in the identification and management of the sub-project. This small group are taken to represent the community, as shown by the Zambian regional officer who told us, ‘I have to go, I have a community in my office’. This statement illustrates the tendency of supporters of CDD to reify the community, allowing them to make statements such as ‘the community selects a sub-project’. Second, the rest of the community is involved in providing the community contribution, but their role is passive as regards decision-making. Their involvement is based on traditional structures for mobilising the community, and is reliant upon traditional authorities. It is striking that this approach will not be found described in the manuals of the two social

funds (which, as shown above, don’t unpack the community and its dynamic), but is the way in which communities have adapted the requirements of the funds to their own social realities. Whilst the design of the social funds seems to ignore Wade’s (1998) finding that project interventions need to identify an existing social unit as the basis for organising interventions, in this case the communities adopt such a practice themselves.

4 Lessons for practitioners

This article has not dwelled on quantitative approaches: it is taken as a given that the most appropriate method will be applied. Rather, the article shows the value to impact evaluations of using a mixed methods approach.

Mixed methods have been defined as the explicit adoption of both quantitative and qualitative methods in the evaluation design. Here I summarise lessons in terms of qualitative steps during the study.

- 1 **Context, context, context:** before study design know the context by reading project documents and relevant academic literature for the field and country of study. Relevant academic literature

varies according to the intervention, and you don't necessarily know what it is in advance. In Ghana it was political economy, whereas in Bangladesh it was village-level anthropological studies (which also proved useful for the rural electrification study though the case is not presented here), and for the Andhra Pradesh study it has been both (understanding why the government pushed SHGs so strongly, and the social context within which they operate at village level). You have to know the literature well enough so that you can come back to things that turn out to be important as the study proceeds. Where national political economy matters, constructing a timeline of national and project-related events is often useful (and generally a useful, and neglected, tool for any intervention).

- 2 **Get into the field early and often:** direct field exposure will uncover insights not available in any documentation. Field officers are often aware of problems, or more candid about them, than headquarters-level staff.
- 3 **Explicitly build qualitative data collection into the study design, but allow some flexibility for defining the scope of that work:** plan ahead of time which areas of analysis will benefit from qualitative fieldwork and budget accordingly. An explicit plan for qualitative data collection avoids the danger that it will be an *ad hoc* add-on – and it may be possible to utilise the sample of the quantitative survey to ensure representativeness in the qualitative work; for example, as in the Andhra Pradesh study where we collected oral life histories of the randomly selected households for the formal survey. However, flexibility should be retained to mount additional qualitative data collection should the need arise.
- 4 **Draw on the full participatory toolkit:** focus groups are the most common participatory approach, but can suffer from problems of representativeness (best tackled by going for well-defined homogenous groups) and 'whose voice' is represented when there is disagreement or a silent minority. Group work can be more usefully facilitated by using methods such as wellbeing

(rather than wealth) ranking, how it has changed over time and why, and social mapping of various kinds. Transects (going for a walk) help break down the formality of a group setting, and can yield unexpected insights if you decide to walk off in a different direction. I am a great believer in well-conducted oral life histories as a rich source of information.

- 5 **Avoid bias:** do not make discussions too intervention-focused. My advice (for quantitative data collection also) is to collect data on how outcomes have changed, and then isolate the major factors behind that change – if the intervention has been one it will come up. But if you collect thirty oral life histories amongst key target groups and none of them mention the project unprompted that's bad news in terms of impact.
- 6 **Exploit complementarities in design:** sequence quantitative and qualitative methods to exploit complementarities. Qualitative research can inform questionnaire design, as it should have done in Lao and later rounds of our Andhra Pradesh survey. But also at the field testing of the survey instrument you can allow for some unstructured reflection by the respondent to find out what may be missing.
- 7 **Have qualitative teams available to follow up on issues emerging from the quantitative data collection**
- 8 **Pay explicit attention to reconciling quantitative and qualitative findings**
- 9 **Be systematic in analysis and presentation:** just as for quantitative analysis, it is important to 'let the data speak' (see White 2002), so conclusions should be consistent with the data. I believe well-chosen quotes from qualitative work can be very powerful, but they must be representative. In the case of Ghana, field experience showed the growing dichotomy in the public sector, the quantitative data confirmed it, and the teacher with neither posters nor walls gave the most visual summary of this problem.

Notes

- * The author would like to thank Michael Bamberger for comments on an earlier version of this article. The usual disclaimer applies.
- 1 Discrimination cannot be entirely ruled out, since it was this third group which supported the US during the Vietnam war. Lao was victim of the so-called 'secret war' still having the legacy of the environmental effects of agent orange and the dubious distinction of having the world's highest number of land mines *per capita*. But the electrification plans of EdL do not support this discrimination hypothesis.
 - 2 The discrepancy between the school census-based official data and the household survey data is easily reconciled in favour of the survey data (see World Bank 2004: Annex H; and White 2005).
 - 3 Teachers in developing countries get a bad rap, with many reports condemning high levels of

teacher absenteeism. I would like to pay tribute to one, but certainly not the sole, exception, Mr. Famous Baiku of Hohoe. He had been part of the team which helped make the school mentioned here the success it is today, for which he received the district's 'Teacher of the Year' award, and has now moved onto another poorly performing school to try and replicate his earlier success. I learned much from him about the way Ghanaian schools can and should function.

- 4 I say 'largely unremarked' since the phenomenon was starkly documented in an excellent, but apparently uninfluential, report entitled *A Tale of Two Ghanas* (Kraft 1995).
- 5 Whilst I was pleased with the design of this instrument, the data collected were of limited use as we failed to get the point of the exercise across to the enumerators during the training.
- 6 This section is based on White and Vajja 2008.

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