It has long been orthodoxy among adult educators that those who teach adults need to take into account the existing knowledge, practices, perceptions and expectations of the learners. This is true at both central level where curricula and teaching-learning materials are developed and at local level where adult teacher/facilitator meets adult learners. The problem has been how to train adult educators in appropriate ways to discover the existing epistemologies and aspirations of the adult learners. This paper outlines such a training programme using ethnographic approaches to discovering the existing numeracy and literacy practices of dalit women learners in a rural part of India. The programme is aimed at a group of trainers working with the NGO Nirantar (India) and others from south Asia (India, Nepal, Pakistan and Bangladesh) with the support of ASPBAE (Asian South Pacific Bureau of Adult Education) and a UK-based NGO, Uppingham Seminars in Development. We begin the paper by looking at the theoretical background to the project and then reporting on the workshops held so far, and finally linking it to the next stage of the project.
The project described here is a collaboration between an NGO in the UK, Uppingham Seminars in Development, which has experience in working with literacy as a social practice, and Nirantar in India, an educational NGO with experience of working for the empowerment of rural *dalit* women through education, extending their literacy and other communication skills. The project draws together three areas of developmental practice: ethnography and literacy (Professor Brian Street), adult education and course development (Professor Alan Rogers), and numeracy learning and teaching (Dave Baker).

The longer term aim of the project is for the participants to gain first-hand experience of ethnographic-style approaches to local literacy and numeracy practices in order to support teaching and learning in these areas and to produce some form of training guide to the methodologies so that they themselves can diffuse these approaches more widely throughout South Asia. We begin with a brief account of the project development process over the last few years and then lay out the conceptual framework before describing a recent workshop in Delhi in which the underlying principles of ethnographic approaches to literacy and numeracy were applied.

**The Background**

The immediate impetus towards this training programme arose during the development by Nirantar of a new curriculum for the *dalit* women in their Uttar Pradesh programme. Using participatory methods as in all their work, they discovered something of the differences between what Nirantar would wish the group to learn and what the women already knew and believed. For example, when talking with them about science and using the ‘modern’ divisions of animate and inanimate categories, the rural women insisted that ‘rivers’ should be described as animate, not inanimate. Wondering what other discrepancies might lie hidden, the members of Nirantar decided they needed training in how to uncover the existing epistemologies of the women they worked with. In December 2002, they approached Uppingham Seminars to discuss this.

There have been a number of short-term exchange visits between Nirantar and Uppingham Seminars for several years; thus Alan Rogers and Brian Street have made visits to India and conducted training sessions (including participatory curriculum development and literacy as social practice) and field work with the staff of Nirantar; and Nirantar members have visited the UK on several occasions including attending Uppingham Seminars. Both Nirantar and Uppingham Seminars felt that the time was right to extend this work by applying systematic ethnographic-style methods to the training of numeracy and literacy trainers who could then use similar approaches to teach numeracy and literacy to rural women and other adults in south Asia.
This thus led to the development of the project that is known as LETTER (Learning for Empowerment Through Training in Ethnographic-style Research). The preliminary phase of the LETTER project included a visit made by Brian Street to India in early January 2005 to engage in seminars with staff from Nirantar on ethnographic-style approaches to the teaching of adult literacy and to visit Lalitpur in Uttar Pradesh where a number of Nirantar activities are sited. This workshop fed into the design of the main project, which consists of a planned series of workshops with field experience in between. The design extended the preliminary project in two ways – first by attending to numeracy as well as literacy, and secondly by broadening the audience beyond Nirantar to include staff from other South Asian organisations and institutions involved in adult education with the support of the Asia-South Pacific Bureau of Adult Education (ASPBAE).

Conceptual Framework

The workshops and the LETTER project as a whole are rooted in theoretical perspectives on literacy and numeracy as social practice. This is often associated with the concept of the ‘New Literacy Studies’ (Street, 1984, 2001, 2005; Gee, 1991; Baker, 1998; Baker et al, 2003; Street et al, 2005) which assumes that both literacy and numeracy have diverse cultural and social uses and meanings in different contexts and that those preferred by some teachers and educational policy makers and planners are only a few amongst many (see Chapter 6 of the recent EFA Global Monitoring Report on Literacy; and also a recent UNESCO paper ‘The Plurality of Literacy’). From this perspective, those engaged in providing numeracy and literacy learning programmes for adults start by listening to local views as well as building upon what the teachers bring. This fits with some of the work being done in the UK by Maths4Life and the National Research and Development Centre for Adult Literacy and Numeracy (NRDC) (Baker, 2005), as well as with the experience gained by Nirantar in their educational work with women in South Asia (Nirantar, 1997). In order to develop such an approach, those designing a learning programme need to learn from the literacy and numeracy learners, using ethnographic-style methods – not so much working as anthropologists doing ‘an ethnography’ as adopting an ‘ethnographic perspective’ (Green and Bloome, 1997). Developing such an approach involves helping the participants – in this case adult education trainers – to identify local cultural meanings in context, reflect upon their own assumptions and values, and then design curriculum and pedagogy that will build on such local knowledge.

The programme also draws on the insights of adult education, that those who teach adults should take into account the existing knowledge and practices of the adult learners (Rogers, 2002, 2003) as well as their expectations and aspirations. The development of critical reflection among both the adult
teachers and the adult learners as part of adult learning programme which Freire
and others have advocated as part of the goals of adult education depends on
the growing awareness of the funds of tacit indigenous knowledge and the
cultural practices which the learners bring to the learning programme from the
communities of which they are a part. But few teachers of adults and fewer
adult learners have been helped to acquire the skills of uncovering such
knowledge systems and practices, of becoming in fact ‘researchers’ of their
own perceptions, beliefs, knowledge and practices. Teachers and learners as
‘researchers’ lies at the heart of all critical adult education.

This is the aim of this LETTER project – to help those who train the trainers
to develop for themselves, in their own contexts, training programmes in
ethnographic ways of exploring the existing perceptions and experience of
literacy and numeracy among the learners that take account of the lifeworld of
these learners. The project thus incorporates a research component to evaluate
whether those learning numeracy and literacy in such contexts do actually gain
from the social practice and ethnographic perspective as well as a curriculum
development component. This programme claims that by finding out what
perceptions of numeracy and literacy the learners already hold and what literacy
and numeracy practices they already engage in, a more appropriate and relevant
form of learning programme can be developed and learning can become more
effective. Such claims must themselves be evaluated – and the LETTER project
aims to undertake such an evaluation.

The project is engaging Nirantar staff and others over an intensive period (at
least eighteen months), during which consultants familiar with social practice
approaches to literacy and numeracy will facilitate professional development
workshops for the participants. They will develop curriculum and pedagogy as
they engage with literacy and numeracy facilitators who in turn work with the
learners. This ‘practitioner’ approach is complemented by an ‘academic’
approach to learning about ethnographic methods and adult curriculum
development, which requires some seminar-like discussions of the topics and
some joint reading of key texts and writing. The sessions thus aim to familiarise
those attending with conceptual and theoretical issues involved in designing
and implementing ethnographic research, focusing on issues of observation,
interviewing, collecting and representing ethnographic data, engaging in
collaborative research with the subjects themselves and taking into account
ethical issues. These two ‘inputs’, the experiential and the academic, presented
by workshop and distance learning modes, provide the basis for the
intermediate stage involving pilot ‘case studies’ of literacy and/or numeracy
practices in the local environment.

Given that ethnographic-style research and practice involves close
interaction and dialogue with subjects, the training workshops have been
planned to work on the same principles, a mix of ‘academic’ and ‘practitioner’
ways of working, in which each party learns from the other. Each of the workshops starts with participants exploring their own experiences and understandings. Participants engage in examples of doing ethnographic-style research, reflecting upon the skills involved in this approach and reporting back to workshop sessions. At the same time, the workshop tutors introduce the participants to some of the basic concepts and skills of ethnographic methods, drawing on a range of examples of ethnographic research. The workshops thus are looking at ways of using the approach of ‘teachers as ethnographers’ for the teaching of numeracy and literacy. The applications of these approaches to curriculum design, materials development and pedagogy will form the basis for subsequent workshops later in the project. In a cascade training component whereby those engaged in this training activity will disseminate this understanding and approach among practitioners within their own localities, some of the future training workshops will be held in the different regions of the participants themselves.

We now illustrate how these ideas were applied by providing an account of some aspects of the first workshop in the series held in Delhi in January 2006 and the field studies now being undertaken. We focus here more on the numeracy component than literacy, as in the past it has received less attention than literacy in the field of adult education and development. However, in common with the numeracy component, the literacy element in the programme went through a carefully sequenced series of activities.

The Workshop in Delhi January 2006

The first workshop in the LETTER series consisted of a six-day training programme in Delhi in January 2006. The 19 participants were drawn from both Nirantar trainers and others from South Asia (India, Nepal, Pakistan and Bangladesh) who are being supported by funds from ASPBAE and their own organisations.

The workshop was facilitated by Dave Baker and Brian Street, with support from Nirantar. The sessions began by identifying the needs, concerns and issues of the participants concerning the teaching and learning of numeracy and literacy to adults in their own contexts. These were sited within policy or teaching contexts. In respect of numeracy, for instance, examples of the issues raised were: learners’ fears and in particular women’s fears about maths; the acceptance of numeracy education for school-aged children but its neglect for adults; the social power of numeracy as a gatekeeper or as an indicator of ‘ability or intelligence’; and the dominance of literacy in adult education policy and practice. The participants explored their own numeracy practices. We found, for example, that they used finger counting extensively, some using three to a finger and others four (we have discussed this elsewhere - Street et al,
They felt comfortable about the use of their fingers in this way but some were surprised by the different ways other participants used their fingers, either the numbers per finger or the direction they moved across the fingers. This revealed some of the complexities that could be involved in knowing about their own learners’ numeracy practices. In some cases, they might share common practices with some learners, and in others the practices might be different. It was not suggested in the workshop that knowing about different counting methods was itself important. What was stressed was an increasing awareness of different cultural (numeracy and literacy) practices and the place these could play in teaching and learning.

Next we considered research and theoretical issues about pedagogy for numeracy and literacy, and about the nature of these practices. Possible approaches to the teaching and learning of literacy and numeracy were considered (for numeracy, see Coben, 2003; Johnston et al, forthcoming). In particular, as with literacy, theoretical views underlying numeracy as social practice (Baker, 1998; Street et al, 2005) as a way of enabling the teaching of numeracy to be socially and culturally sensitive to the needs of learners were developed and compared with those from numeracy seen as autonomous practices (Baker, 1998; Baker et al, forthcoming).

The workshop thus sought to build on the experiences, knowledge and practices of the participants in both fields. The workshops were interactive and all participants were encouraged to feed their experiences into the discussions. To help to develop more culturally sensitive and broader conceptualisations of numeracy and literacy practices, participants were given opportunities to seek out and observe numeracy and literacy events in the environment in the area around the workshop and to report back to the workshop. One of the numeracy practices they reported back on included accounts of Delhi taxi drivers’ lives. The drivers they met came from outside Delhi and they tended to live in their taxis. Many of them kept accounts of their expenses, their takings and profits and their living expenses in their heads. They made sophisticated decisions about their use of taxi meters. They made little or no use of written records. Pressure for recording, which came from taxi regulations and taxation and was a high status numeracy practice (i.e. part of formal education’s priorities and practices), was in conflict with the taxi drivers’ use of mental/oral records which fitted more closely their own priorities and lifestyle. This conflict between mental/oral and written numeracy practices was one that a number of rural women in India experience as they buy and sell their agricultural produce. Such accounts were reported to the workshop and received feedback from both tutors and participants.
Intermediate Fieldwork

During the workshop, members of the group were required to design a small-scale pilot research project to study numeracy and/or literacy practices in their own working environment. This was to be undertaken between the first workshop and the next one planned for August 2006.

An example of such a research design was provided by the participants from Nirantar. Their research plan was to investigate the numeracy practices of dalit women in a rural village in Uttar Pradesh in India who were participants in an adult numeracy/literacy class. Dave Baker was able to observe the early stages of this investigation during a field visit to the Lalitpur area following the workshop (Brian Street and Alan Rogers had both visited these sites during earlier visits). Numeracy practices Dave observed included the ways that the women measure the produce they take to sell to or barter with the shopkeepers in the towns. The shopkeepers only deal with standard weights such as kilos. But the women use their own local container called a ‘barayya’ (which holds about a kilogram of water) to measure a range of produce including ghee, wheat and sesame seeds. The containers conceptually are measures of capacity but are used to refer to the weights of the produce. The weights of sesame and ghee that these containers hold are different because their densities are different. The women’s numeracy practices seem to involve them in switching between their own measures and standard measures, between the concepts of capacity and weight, and between the weights of different produce as they negotiate to sell their produce (cf. Saraswathi, unpublished). Not surprisingly, given the differences in social and cultural backgrounds, the Nirantar trainers were not always aware of these practices, which were local, well-established and sophisticated. They could be seen as the women’s ‘funds of knowledge’ for numeracy (Gonzalez, 2004; Moll, 1992; Baker, 2005). But all the participants in the workshop felt that these numeracy practices had potential to contribute positively to the village numeracy/literacy classes. It was also clear that these numeracy practices did not include written recording. The dalit women said that they wanted to learn how to read and write down records of their purchases and sales to avoid being cheated by the shopkeepers. It was not clear to either the trainers or tutors whether such learning would solve this problem. Challenging shopkeepers involves a range of social skills and relations that may well go beyond the technical skills of reading and writing numbers. Knowing about different measuring and accounting practices would not, by itself, solve the dalit women’s concerns. However, what was seen as important was an awareness of the potential for the facilitators to build constructively on the dalit women’s numeracy practices and funds of knowledge in their teaching of adult numeracy. It is expected that practical ways of using this knowledge will form a focus of subsequent workshops.
During the January workshop, the participants worked in small groups on the design of their research project and they presented their provisional plans to colleagues. The suggestions discussed among the participants included the following:

• How women keep records of their economic activities e.g. fruit trading, credit groups
• Literacy and numeracy artefacts, notices etc. observed in the environment
• Small surveys of what those coming to literacy programmes say they want/what is offered/what they say after the programme
• How women help their children with school work
• Personal histories from local women e.g. towards the production of a newsletter
• Measuring time, distance and amounts; linear measurement (cf Saraswathi)

The following topics have so far been started:

• In Nepal, the participants will follow up those who completed a World Education learning programme called GATE (Girls Access to Education) to see how they are using numeracy practices – how far what has been taught is being used in everyday life.
• In Bangladesh, a study of the numeracy practices involved in some local economic activities and some daily life transactions in rural areas (mainly women) has been commenced.
• There are a number of projects in India. In Andhra Pradesh, the staff of mahila samakhya (a government-sponsored programme for women’s empowerment) are making a survey of the use of signs, symbols and names for calculations and measurements made by women in two villages and comparing these with what is found in the current learning programmes. Elsewhere, the existing literacy practices of tribal women in two villages is also being made; in another village, the women’s relationships with the shops, government schemes such as ‘Food for Work’ and ration cards are being compared with the material found in the children’s textbooks. In Uttar Pradesh, two villages have been chosen and two parallel studies are being made, one looking at the texts which are on public display to see who made them and who uses them, and the second looking at the measures used in agriculture and marketing, comparing these with those being taught.
• Other projects are being devised in Pakistan and elsewhere.

The enthusiasm of the participants for this kind of survey, especially in numeracy, reflects something of the newness of this area of study. Almost all reported that they had never thought of numeracy in this way before. Hence the
fieldwork chosen tended to concentrate more on existing and new numeracy practices than on literacy practices.

The participants agreed to implement their research plans in their own working contexts and to report back on their research at the next workshop in August 2006, facilitated by Dave Baker with the assistance of Nirantar members. It is anticipated that some of the participants will have practical difficulties completing this work; nevertheless, it is already clear that enough of their fieldwork will be done to feed into the August workshop. The course tutors are providing feedback by e-mail and this will be shared with all participants as they prepare reports to the workshop.

All of these projects are meant to be small-scale pilot studies; there is not enough time to make larger studies leading to more general conclusions. But the aim of these local studies is not only to help the participants learn by their own experience; it is also hoped that these will form case studies for the further training programme.

The participants will report back to the August workshop on their experience and present preliminary findings – both of actual data and reflexively on the problems they encountered in doing their research on local numeracy and literacy practices. In the workshop, feedback by both tutors and participants will again be a central dimension. A major aim at this stage will be to consider how such ethnographic research into literacy and numeracy can be used in the development of ethnographically-based curricula and teaching-learning materials for women’s empowerment, based on adult learning principles. An initial step towards producing such materials will be taken at the August 2006 workshop.

On the basis of this experience of research, reporting and feedback, further projects will be designed that will form the basis for work over the remainder of the project, including further workshops. The length of time involved here has not yet been decided as it depends on funding but it may be 18 months or more. The tutors will continue to interact with the participants over this period: the researchers (Nirantar staff and the other participants from South Asia) are being invited to send drafts of their field notes and initial findings and the Uppingham Seminars tutors will provide written feedback.

Some Lessons Learned

From the project activities so far, some principles have emerged that will help to frame and guide the production of the materials for the teaching of numeracy and literacy using ethnographic style approaches. To give one example, the following guidelines for numeracy were developed:
An ethnographic style approach to the teaching of numeracy would go:

- beyond number to include shape, space, data, patterns, ways of thinking etc.
- beyond content to practices; that is, to teach about events and practices, use existing funds of knowledge and switching modes
- beyond decontextualised and educationally embedded contexts towards ‘real’ action ones (cf Rogers, 2005)
- beyond cognitive aspects of teaching and learning towards social, cultural and emotional aspects
- beyond performance and ‘doing maths’ towards the critical reflection, including informing and confronting different understandings
- beyond teaching numeracy as skills towards the complexities and potential of teaching numeracy as social practices
- beyond teachers as holders of autonomous numeracy knowledge towards teachers as ethnographers of numeracy who are culturally sensitive and aware of issues such as values, power, diversity and are economically, socially, and culturally inclusive.

Similar guidelines for literacy will be developed in future workshops, building on the already considerable experience of many participants in this field (cf Rogers, 2003). It is intended that guidelines of this kind will be incorporated into publications from the project. One of the aims of the project is that with the assistance of the tutors, the trainers and participants from Nirantar and the other South Asian NGOs will write these studies up into a series of case studies drawn from their reports on their ethnographic-style research into literacy and numeracy in their regions. The team will also develop ethnographically-derived guidelines for curricula and teaching-learning materials for women’s empowerment and numeracy and literacy learning (cf Rogers, 1992; Street, 2006; Baker, 2005). And they will develop and pilot training activities for staff from other agencies using these materials – a capacity-building dimension that has implications more broadly for numeracy and literacy programmes in South Asia and elsewhere. Publication of the research findings and of the guidelines will form part of the project.

In the spirit of interactive and ‘participatory’ projects such as this, there is much scope for adjustment as things unfold, both in the light of feedback and of funding constraints. At this stage, feedback from both practitioners and academic communities would be welcomed. Whilst different in many ways from the experience of literacy teachers in the UK, who are often more constrained at both school and adult level by national curricula, formal requirements etc., nevertheless this more informal learning experience may provide the basis for some project work and some conceptual adjustment in Western contexts too. At the same time, criticisms of New Literacy Studies have suggested that it may be more located in theory than in practice, and
projects such as this can provide a way of testing out its claims and perhaps modifying concepts and theory accordingly (as in a new edited book on Literacies across Educational Contexts (Street, 2005) that exemplifies such theory/practice interface through case studies in many parts of the world). We look forward to further exchange of such experiences.

Brian Street is Professor of Language in Education at King’s College, London University and Visiting Professor of Education in both the Graduate School of Education, University of Pennsylvania and in the School of Education and Professional Development, University of East Anglia. Brian Street undertook anthropological fieldwork on literacy in Iran during the 1970s and taught social and cultural anthropology for over twenty years at the University of Sussex before taking up the Chair of Language in Education at King’s College London. He has written and lectured extensively on literacy practices from both a theoretical and an applied perspective. He has a longstanding commitment to linking ethnographic-style research on the cultural dimension of language and literacy with contemporary practice in education and in development. He has been involved in Technical Support teams, lecture tours, workshops, training programmes and research on this in a number of countries, including USA, South Africa, Nepal and India.

Dave Baker studied mathematics before becoming a teacher of mathematics in schools. He taught on teacher education programmes and then undertook research into teaching and learning mathematics in teacher education and in formal schooling. As part of a team he has researched relationships between children’s home and formal school mathematics practices and how understandings of these relationships may contribute to explanations of some children’s low achievement in school mathematics. A book describing this research, entitled Navigating Numeracies: Home/School Numeracy Practices, was published in 2006. He is currently working on socially and culturally sensitive approaches to teaching numeracy/mathematics to adult learners in the UK and in South Asia. He has focused on issues of social justice in mathematics and has sought to extend current developments in pedagogy towards widening access and to the need to transform dominant practices in mathematics education. He has published two other books, presented at many conferences and published academic papers on mathematics education.

Alan Rogers, based at the Universities of East Anglia and Nottingham, is an adult educator with a wide range of experience from local community history to adult learning (formal and informal) and literacy as social practice. He was on the staff of the University of Nottingham for over twenty years before working in Northern Ireland and then in many developing countries in Asia and Africa. He has written a number of books and articles including Teaching Adults (latest edition 2003), Adults Learning for Development (1992) and Non-Formal Education (2004). He was the first Secretary General of the Commonwealth Association of Education and Training and founder Executive Secretary of Education for Development, and is now Convenor of the Uppingham Seminars in Development.

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Notes

1  This paper has been prepared in the course of working with the staff of Nirantar, New Delhi; we are grateful to them for all their comments.

2  In order to make clear the distinctions between different participants in this programme, we have tried to use the following terms: the women in the grass roots classes are called here ‘learners’; their teachers are called ‘facilitators’; the participants in this training programme are called ‘trainers’; and the overseas resource persons are called here ‘tutors’. The aim of the programme is to induct the trainers into ethnographic type research methods and the conversion of this into appropriate teaching-learning strategies, so that in a cascade fashion they can train the facilitators in their own areas in appropriate methods of discovering the existing knowledge and practices of the learners.

3  Unfortunately Professor Rogers has been prevented by ill health from participating in this workshop as was planned.