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Developing coding systems to analyse difference

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Introduction

The UK Government is currently funding a number of programmes in disadvantaged communities as part of an initiative to regenerate run-down, deprived areas. These programmes include Neighbourhood Renewal (three years of funding to involve local residents and influence mainstream services in deprived neighbourhoods); Sure Start (targeting families with children under the age of four); Primary Care Trusts (health); New Deal for Communities (a ten-year programme for the most disadvantaged communities); Health Action Zones (promoting improved health and services); and Sports Action Zones (promoting sports).

A common element running through all these initiatives is the requirement that local communities participate in project identification and design. In many cases, the statutory bodies involved – local government and health authorities – have found that traditional ways of consulting with communities, e.g. questionnaires and public meetings, have not produced the level of public involvement expected. Therefore, they are seeking new and innovative ways of consulting and involving communities.

Over the past three years, Development Focus UK has been working with government organisations and NGOs to build capacity in this area. Drawing on our experience of

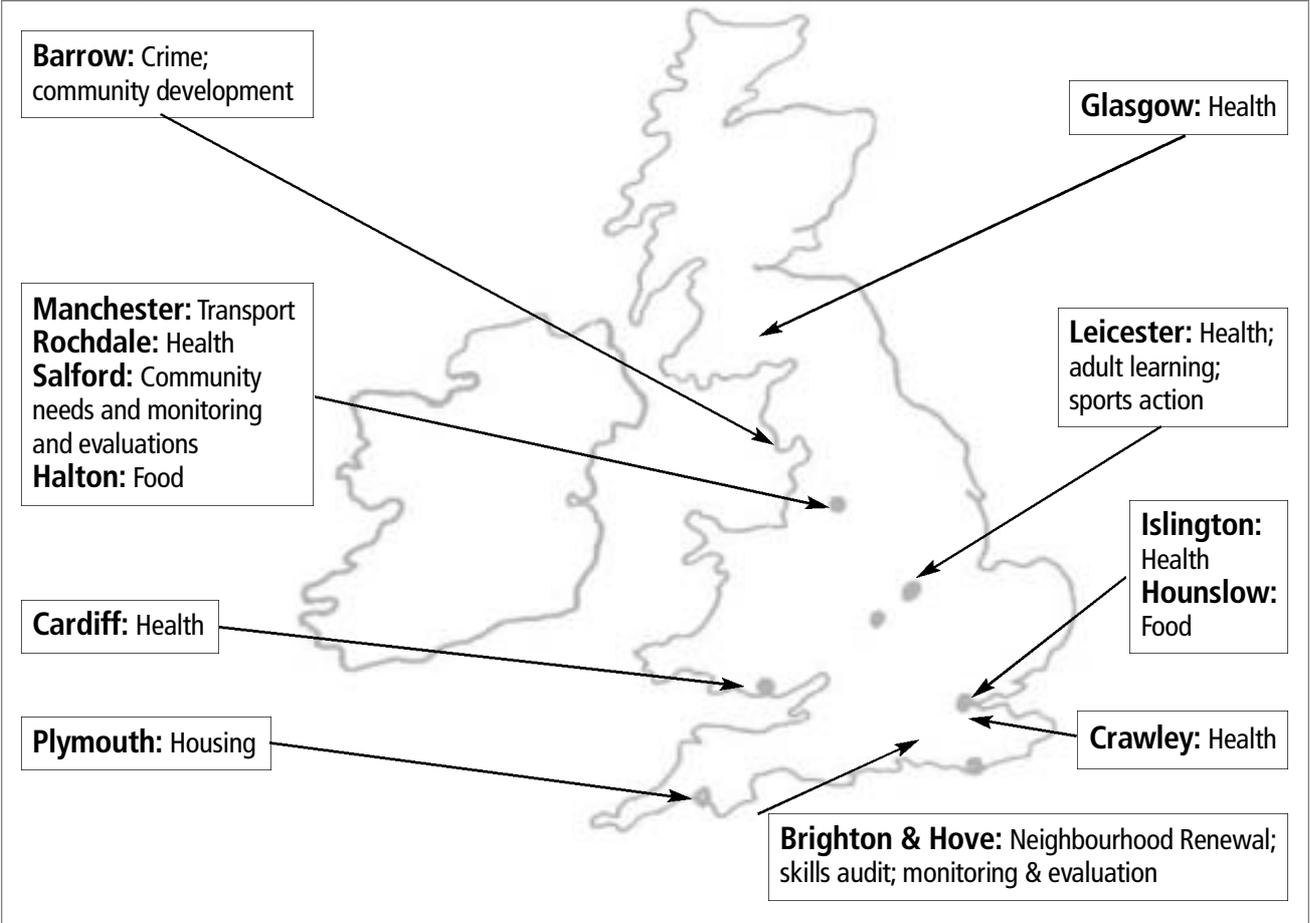
participatory approaches in the North¹ and South, we have designed an accredited training programme, Regeneration through Community Assessment and Action (CAA). The programme involves training a team of local residents and local professional workers (e.g. community development workers, health visitors) in participatory research methods. The trainer then supports and mentors that team whilst it conducts a community needs assessment and prepares an action plan. A primary objective of the CAA approach is to provide agencies and communities with the skills to conduct further CAA processes in the future without the need for external support.

The CAA methodology has been applied across a range of different themes and institutional contexts, throughout the UK (Figure 1), and it is continuing to evolve and develop as experience is gained and shared among CAA teams and trainers.

In this article, we focus on the development and use of **coding systems** in the CAA. Coding systems are a central feature of the CAA methodology and form an important part of the community-based monitoring system and action plans developed during the CAA.

¹ We have drawn on work Development Focus UK has carried out with Sustain and Oxfam UK on participatory research methods in the UK (see Johnson & Webster, 2000).

Figure 1: Map showing CAA programmes around the UK



Developing a coding system

Coding systems allow the research team to record selected characteristics of each person consulted during the CAA process, for example, age, gender, ethnicity, relative wealth, and disability. This reveals where there is agreement and where there are differences of opinion between different people in the community and, sometimes, where conflict resolution is required. It also reveals who has been involved in the CAA process and helps ensure that all interests are represented, particularly those of the 'hardest to reach'. In some cases, it is a statutory requirement that information about those consulted is recorded for monitoring purposes.

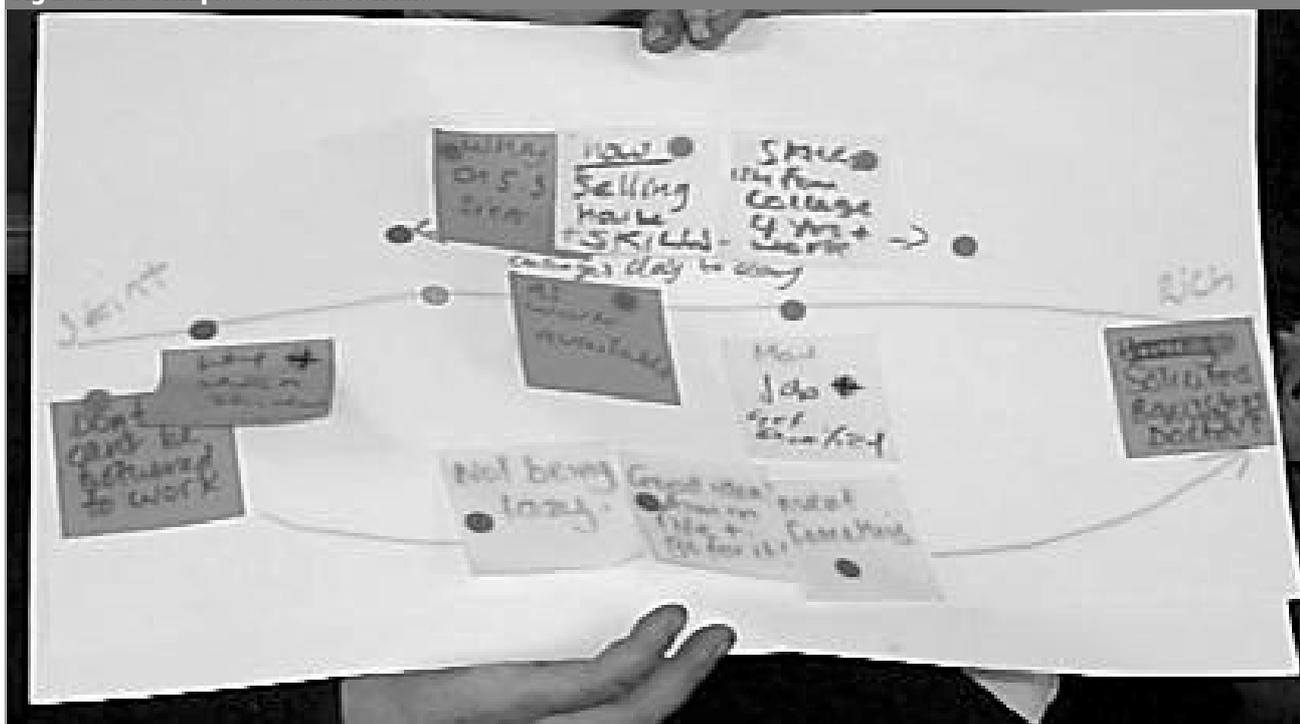
Each team develops a locally relevant coding system at the beginning of the CAA process. Across all the CAA projects, there are common criteria such as age, gender, disability, and ethnicity. However, within each project the

different age ranges and disability and ethnicity categories are defined by the research team during training and then tested out and modified through work in the community. Additional criteria may also be recorded, depending on the objectives/focus of the research and the community (see examples in Box 3).

Research teams also consult with residents to determine local indicators of wealth using different tools, for example 'skint/rich' lines (poverty/wealth ranking lines – see Box 1 and Figure 2) and poverty mapping.

Implementing the coding system

After developing the coding system, the team begins the CAA process in the community, using a variety of methods either with groups (e.g. working men's clubs, mother and toddler groups, or specially selected focus groups) or out and about on the streets, (e.g. in shopping centres, parks,

Figure 2: An example of a skint/rich line

street corners, or bus stops). Each different person consulted is given a sticker according to the coding system for the project. For example, in the case of the Heywood Health Action research team, dots indicate males and stars indicate females, and the different colours – green, red, and yellow – indicate how many earners there are in the household (see Box 2).

Each person's sticker is placed on a project 'monitoring map' to show the location where they live and the geographic spread of the different participants consulted. Figure 3 shows an example of a monitoring map, in which the different colours, shapes, and sizes of dots represent participants of different age and gender.

The coding system is also used throughout the participatory research in all of the different visuals, for example in scoring, ranking, and developing matrices, pies, causal-impact flows, maps and verification, and action planning grids and diagrams (Figure 4). With some tools, participants put their comments on sticky labels, which are all coded appropriately. The analysis carried out by the team collates this information and the team goes back out for street and group verification, again using the coding system. Different stakeholders involved in the 'reference groups' of service providers and policy makers are also

Box 1: Skint/rich lines

Residents are asked to place a cross or sticker on a line, indicating how rich/skint they feel (see Figure 2). They are then asked why they have put themselves there. It is this process of discussion that reveals local criteria for wealth. The discussion broadens out, with residents reflecting not only on their own situation but also what indicators to look out for when assessing wealth and poverty at either end of the spectrum or line. These local indicators can then be incorporated into the coding system.

During the Health Improvement Project (HIP) in Bewbush, Crawley, people in the community identified the number of children and the wages or benefits going into the household as important local indicators of wealth/poverty.

coded so that their perspectives are distinct in the process.

The criteria of the coding system indicated by the different colours and shapes of stickers are issues of difference that the team has decided they need to monitor and analyse visually. These differ for different projects depending on what the team feels is most important to be able to see 'at a glance' on the visuals generated by the participatory research. Other criteria are also important and are included in the coding system using letters, numbers, or shapes drawn onto the stickers. For example, in Heywood different capital letters indicated ethnicity and lower-case

Box 2: Example of a coding system from Heywood Health Action Research Team

The team recorded information on the gender, age, and ethnicity of all participants, and the earning status of the household they were part of. The coding system used was as follows:

Earning status of household		
One person in household earning money		Green
More than one person in house earning money		Red
No person in house earning money		Yellow

Age		
0-16	a	
17-24	b	
25-40	c	
41-59	d	
60 and over	e	

Ethnicity		
White British		WB
White European		WE
White Other		WO
Asian		AS
Chinese		CH
Black Afro-Caribbean		BC
African		AF
Mixed Race		MR

Gender		
Male	●	
Female	☆	

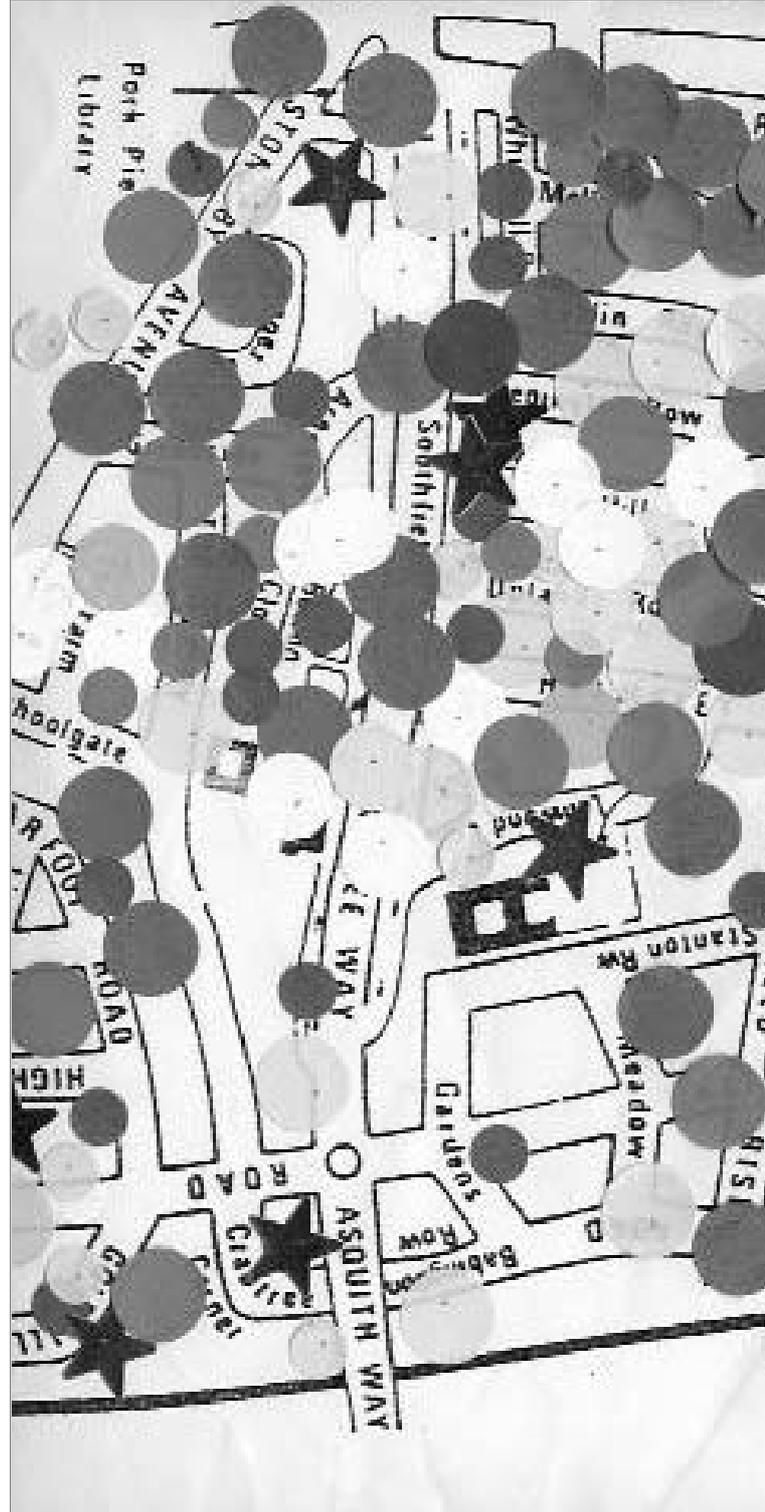
Other information recorded on the monitoring grid included: information about disability, the number of adults in the household, the number of children in the household, and whether they have been spoken to before, with date and location.

letters indicated age (see second part of Box 2). A number can also be placed on each sticker and additional information about the participant recorded on a corresponding 'monitoring grid'. It is part of the training process with the team to devise a coding system that allows an element of visual analysis, while monitoring and tracking all the issues of importance locally, and those that have to be monitored for statutory purposes.

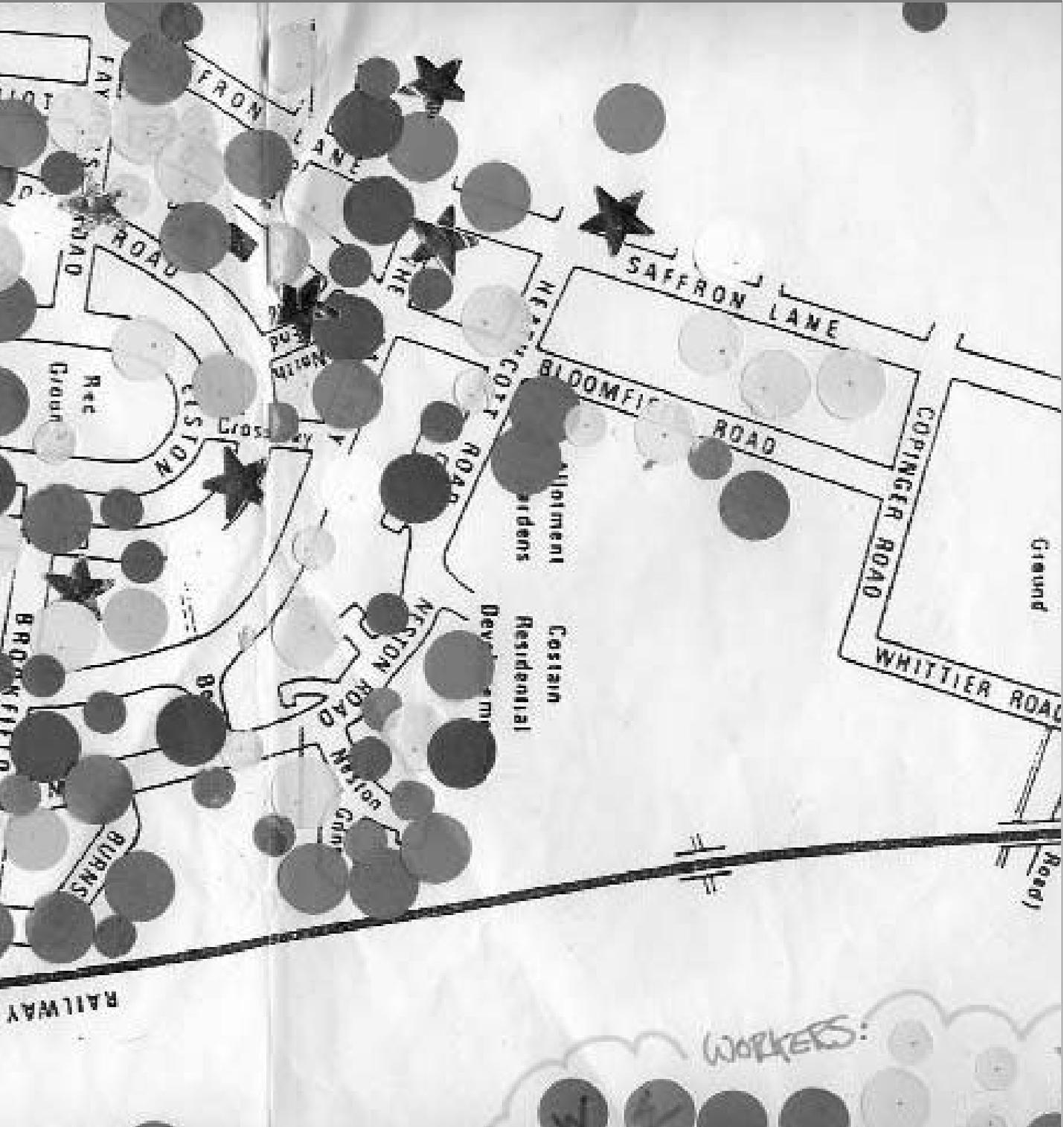
Throughout the process, all contributions made by participants need to have a coding sticker placed on them. Each new participant is given a sheet of stickers to use for this purpose. Using a numbering system with the stickers and grids helps to avoid double-counting the same person if they contribute more than once.

Findings remain anonymous – residents' personal details such as name and address are not recorded as part of the coding system, to maintain confidentiality. However,

Figure 3: Monitoring map illustrating the coding system used for

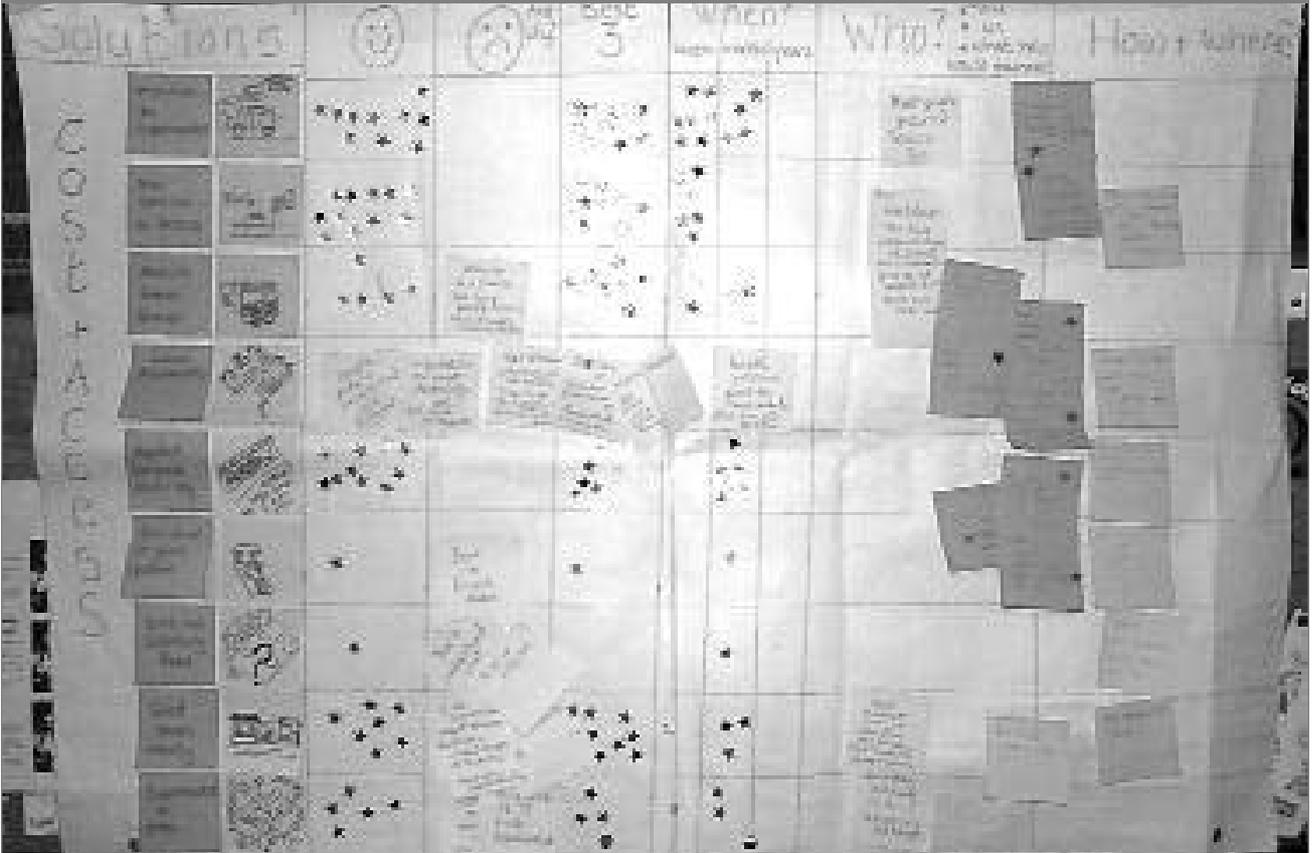


a 'learning audit' carried out in Saffron, Leicester



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Figure 4: Using a coding system in action planning, Hounslow, West London



details may be kept separately for individuals who want to be involved in further action and for statutory monitoring purposes.

Using information from the coding system

The research team uses the information from the coding system in a variety of ways. During the research process, monitoring maps are completed in each session, and at the end of each session the research team duplicates the stickers (or numbers) generated onto the project's monitoring map. This provides a visual record of the coding stickers of all residents consulted during the process, and their geographical location. This is compared with census information, where available, to see whether the proportion of different groups spoken to form a representative sample. The team may identify 'gaps' in the consultation and decide how to access people from the particular groups or locations that are under-represented in the process.

Data from each fieldwork session is also collated and

compiled both by creating visuals for feedback, verification, and prioritisation of actions by different people in the community, and by creating electronic databases for further analysis that will also be fed back to the community and verified. Compiled data provides accessible information on the numbers of people spoken to and their characteristics, as revealed by the coding system. This helps to provide the type of quantitative information needed by service providers to back up the qualitative evidence that is gathered in the participatory process.

Throughout the analysis, there is much emphasis on identifying for which residents different issues are a concern, how different issues impact on different residents, the differences and similarities between residents' views, and the different actions and solutions that are appropriate for each group of residents. The coding system is essential for carrying out this kind of analysis.

Box 3 shows a selection of examples of coding systems used in projects, and illustrates the range of different criteria used.

Box 3: Examples of coding systems

- **Health improvement project, Bewbush, Crawley.** Views of the existing health services and the different actions prioritised by different groups were analysed, specifically taking into account the views of under-14 year olds and carers with under-14s. Coding therefore included the numbers and ages of children that people were caring for, and also whether there were one, two, or more wages going into the household, what kind of state benefits people were receiving, and whether they received a pension. Gender, age, ethnicity, and disability were also coded.
- **Transport issues, Longsight, Manchester.** Friends of the Earth (an environmental NGO) led the process, which looked specifically at transport issues. Different colours and shapes of stickers indicated the different types of access that people had to different forms of transport, the priorities for visual analysis. The coding key also monitored gender, age, numbers of children and adults in a household, ethnicity, and disability. Analysis of the data showed that many Asian women with no access to private cars had particular difficulties in getting around on buses or taxis. At bus stops they would feel vulnerable and insecure, and private minicab drivers could be rude and intimidating. These concerns meant that many women were deterred from travelling alone. The multi-dimensional nature of the coding key allowed for this type of analysis.
- **Health needs, Islington, London.** A CAA process was run with Healthy Islington and Caxton House (a local community-based organisation) in Elthorne, a very diverse and mixed multi-ethnic community. Coding systems were developed which categorised people in the community into 25 different ethnic groups, as well as by age, gender, and wealth level. The team was able to highlight where there was a lack of support and a need for more access to information for specific ethnic groups, including the provision of translating and interpreting services.
- **Health needs assessment and action planning process, Rochdale Primary Care Trust.** Gender analysis of the coded data revealed specific health issues for men and for women, leading to recommendations for well-women's and well-men's clinics.
- **Sure Start project, Hounslow.** Participants were monitored by whether they were the key user group for Sure Start (families with children under 4). This enabled the team to assess whether they were reaching their target group and to understand their perspectives on food and nutrition.
- **Hollingdean Neighbourhood Renewal Programme, Brighton.** Information was needed on people's housing and income status for statutory monitoring purposes, but the key visual elements chosen were gender and age. Analysis revealed a great difference in the community between the problems and issues raised by young people and by adults.
- **Residents' perceptions of community involvement and the barriers to getting involved, Barrow Community Regeneration Company, Barrow in Furness.** Analysis of the data through the coding key revealed that young people hanging around on street corners was a major concern of adults in the older age groups and prevented them from getting involved in community activities. Actions to promote older residents' involvement will incorporate strategies to address these concerns.
- **Perceptions of crime, Barrow Borough Council.** The coding system monitored residents' household status, i.e. whether they were council tenants, home owners, homeless, or in private rented accommodation, as well as other factors. Although there was an initial belief in the team that housing status was linked to perceptions of crime, the analysis revealed that other factors such as age and gender were more important.
- **Housing design, Sovereign Housing, Plymouth.** Consultation on housing plans, using a coding system showing the perspectives of returning residents of different gender and age, as distinct from other members of the community, meant that the team could clearly see who had prioritised which elements of the design for the new housing and what their reasons were.

Conclusions: providing the evidence

The coding system allows numbers of people consulted to be monitored and, importantly, numbers consulted disaggregated by the criteria used in each of the projects. In some projects, the research teams have taken the quantitative aspects of the methodology further by entering the coding data and the responses given by residents, onto a database, thereby enabling statistical analysis to be conducted which complements the qualitative analysis.

Ensuring the methodology is robust and rigorous is especially important in the UK context. Many managers in the statutory sector have a background in formal quantitative research and statistical analysis. Statutory processes also need to show that a representative sample of the community has been consulted. The CAA approach still allows the analysis of the scaled-up data whilst also bringing out the concerns and priorities of more marginalised groups in the community. It cannot just be consensus or majority that

rules action planning in regeneration, but a rigorous analysis of the qualitative information given by different groups of interest. The production of the action plans is always a political process that needs to involve all the stakeholders from early on the process, but the evidence provided through the use of the coding system means residents can be further empowered with a strong body of evidence behind their views and perspectives. Credibility for the CAA methodology arises because of its application of quantitative and qualitative research elements. The coding system combines both methods of inquiry. 'It's about bringing the quality and the quantity together' (quote from research team member in Bewbush, Crawley).

The methodology continues to evolve as teams who have been trained take the approach forward in their respective areas. Capturing this learning and development is also an important aspect of mainstreaming and consolidating participatory research in the UK.

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Local reports from CAA processes are available from local partners listed in the article. Contact details available from Development Focus UK.