Participatory learning materials for health promotion in Ghana—a case study

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SUMMARY
This paper reports on operational research carried out by the Kumasi Health Education Project in Ghana to study the utilisation of participatory/empowerment learning methods for health promotion. The Project used community-based workshops to develop an extensive range of participatory materials on child health and followed these up with in-service training of 367 teachers and 157 public health workers (nurses and environmental health officers). A simple random sample of about half (262) of the participants was taken 6 months later and these personnel were asked to complete a self-reporting questionnaire to evaluate the format, content and usefulness of the materials. Results were compared with focus-group discussions with mothers attending well baby clinics, at home, in market-places and with pupils at school. The field agents reported a high degree of satisfaction with the training and claimed to be utilising the methods. However, this contrasted with the interviews with target groups who reported a low level of exposure to the materials. Those who had been exposed to materials reported a high level of satisfaction and recall of messages. Further focus-group discussions were carried out with field agents and their managers, and four sets of reasons for low utilisation emerged: the quality of participatory learning materials; personal attributes of the users and the impact of training; situational factors including the location and timing of educational sessions; and the support from peers/supervisors. The experiences in Kumasi are critically assessed and indicate that uptake of participatory/empowerment methods for health promotion depends on the quality of the materials and the selection, training and support provided to field staff.

Key words: developing countries; health promotion; participatory learning materials

INTRODUCTION
Ghana is typical of many developing countries in that it faces problems of infectious diseases and malnutrition alongside the emergence of diseases of Westernisation, including cardio-vascular diseases. Ghana has a long tradition of health education. However, as with many other developed and developing countries, it is increasingly being realised that health education approaches based on giving knowledge are insufficient to promote changes in health behaviour (Hubley, 1986). The newer concept of health promotion absorbs health education within a broader framework of reorientation of health policies, economic and social change.

A crucial element of health promotion is the active participation of the community themselves. The role of health education within health promotion thus shifts from giving information and
formal didactic teaching methods to more participatory methods that develop problem-solving skills and empowerment. At the anecdotal level, it is a common experience that it is not easy introducing participatory methods. However, despite the widespread advocacy of participatory learning methods and empowerment, there has been virtually no published research in developing countries which has evaluated either the uptake or impact of these methods.

One of the common assumptions is that the reason why participatory methods are not more widely used is that there is a lack of suitable educational materials. With their origins in the pioneering work of Paulo Freire in Brazil (Freire, 1972), a series of exciting and visionary manuals have been published which describe a range of methods for developing empowerment (Werner and Bower, 1982; Keehn, 1982; Hope and Timmel, 1984; Srinivasan, 1990). However, the long-term advantages of competency building, sustainability and empowerment can only be achieved if the methodology is correctly and consistently implemented by the intended field staff. These issues formed the background against which the Kumasi Health Education Project was established in 1991 with support from the Overseas Development Administration of the United Kingdom. Kumasi is the regional capital of the Ashanti Region and has an estimated resident population of 600,000. Kumasi has one of the largest markets in West Africa which brings an additional 200,000 daily visitors. The aims of the project included the following:

- to establish a health education division staffed by trained personnel within the Kumasi Metropolitan Assembly;
- to develop in-service training programmes for potential district health education personnel;
- to design, pre-test and produce a range of participatory health education materials;
- to carry out an operations research programme to identify appropriate health education agents and methodologies;
- to evaluate the effectiveness of the health education materials, methods and training activities carried out by the Division.

From the outset, the Project set out to challenge traditional didactic health education and introduce participatory learning methods in clinics, schools and community settings. Existing educational materials in Kumasi were mainly government-issued posters and field staff had no previous experience of participatory learning approaches, only didactic styles of teaching. A key component of this strategy was therefore to develop printed materials to support participatory learning and to train field staff in their use. The Project also established a programme of operational research to study the use of participatory education materials, in particular:

- (i) to determine which materials have been exposed to the intended target groups;
- (ii) to determine the frequency of exposure to the participatory education materials;
- (iii) to determine which field agents are utilising the materials;
- (iv) to determine the response of the target groups to the materials.

**METHODOLOGY**

The following materials were found to be the most satisfactory and were developed through a series of workshops with participation of artists and field agents (including teachers and health workers) in a process which included initial qualitative research with members of the target community and extensive pre-testing of the materials.

- **Flip charts**—these were a series of spiral bound pictures on a range of topics including AIDS, worms, childhood accidents, malaria, diarrhoea.
- **Story with a gap**—these are two pictures: the first of the present situation and the second of an improved situation. The participants are invited to make up a story of how the community in the picture were able to organise themselves to improve their situation. These were produced on water/sanitation themes.
- **Three pile sorting cards**—pictures which could be sorted according to whether the community felt that they represented good, bad or in-between practices. These were produced on malaria, diarrhoea, water/sanitation, and HIV/AIDS transmission.
- **Discussion posters**—on cloth (1 × 1.5 m), sometimes called ‘picture codes’: single pictures for triggering discussion and participation—on child care, ante-natal care and oral rehydration.

This was followed by the in-service training of 138 primary and 229 junior secondary school teachers (two per school), all 157 public health workers including Environmental Health Officers (EHOs)
and all Community Health Nurses. All personnel participated in an intensive 3-day workshop on how to use selected participatory health education materials. The workshop consisted of short participatory exercises which provide an introduction to the learner-centred approach to health education and the advantages/disadvantages of this methodology. The second day introduced the participants to a range of participatory materials and a demonstration of the methodology. A group task was carried out on the third day to clarify how the participants would utilise what they had learnt in the workshop when they returned to work. It was intended that agents should include the use of these materials as a part of their normal duties without adding to their overall workload. Participants were provided with a complete set of educational materials to take away with them at the end of their training.

A simple random sample of about half (262) of the participants was taken 6 months later and these personnel were asked to complete a self-reporting questionnaire to evaluate the format, content and usefulness of the materials. Random sampling tables were used for selecting the sample population from the sampling frames of the workshop participants.

The data from these self-completed questionnaires by field agents were compared with the responses of the communities themselves. The intended target groups were primary and secondary school pupils, mothers attending well baby clinics and women and children working at home and in the markets. Care was taken to select a random sample of the target groups from those which should have received exposure to the materials from the trained agents. The random sample population consisted of 25% (63) of the schools included in the in-service training, all five polyclinics in the Kumasi district and a stratified random sample of five communities from each of the four sub-district areas covered by EHOs who had received training.

Focus-group discussions were the main tool for data collection from the intended target groups and were carried out by trained Project staff. This was because most respondents came from low income communities and it was felt that a qualitative approach would provide more insights on their perceptions than a self-completed questionnaire which required a minimum education and literacy level. For school children, the researchers visited each school in the sample population and took a sample of convenience from each secondary school classes 1, 2 and 3, and from primary school classes 3, 4, 5 and 6. The teachers were asked to leave the classroom during the focus-group discussion. The researchers visited during well baby clinics before nurses arrived on duty, although permission was sought first from the medical officer in charge. For the community, the researchers visited marketplaces and homes after first seeking permission from the village elders. The field agents were not informed about the study to avoid any attempted health education activities immediately prior to data collection.

**RESULTS**

During the workshops, all agents readily accepted that health education was their responsibility and a part of their work. This appeared to be confirmed by data from self-completed questionnaires by the field agents who reported that they were utilising most of the materials as a part of their normal duties as intended by the in-service training programme.

However, the study of the target groups provided a different picture of the utilisation of the participatory learning materials as compared to that provided by the agents. Only 37% of primary school children and 55% of secondary school children reported having seen the materials being used by their teachers.

A total of 133 people were interviewed in the five polyclinics. It was found that two of the clinics were actively using the materials with the exception of the ‘Three pile sorting cards’; two were occasionally using the materials; and one was reported to have never used the materials. In the communities only 10% of people interviewed reported having seen the ‘Flip charts’ being used and then only on an occasional basis. The ‘Story with a gap’ and ‘Three pile sorting cards’ were not reported to have been seen by the target group. Many respondents, clustered by agent, were able to recount the messages included in the participatory materials and stated that they had enjoyed the exercises and had requested that they should be used on a more frequent basis.

The findings of both studies were discussed with senior management, who agreed that further focus-group discussions should be carried out with the agents to determine the reasons for the reported under-utilisation of the participatory materials. A single meeting was held with 50
DISCUSSION

This shortfall in utilisation of the materials developed by the Project was disappointing because the response from members of the target communities that had been exposed to the materials was very positive. Based on the findings from the studies, the following four reasons emerged for under-utilisation of the participatory materials:

- the quality of the learning materials;
- the personal attributes of the users;
- situational factors; and
- the level of support from supervisors and peers.

The quality of the participatory learning materials

Our experience showed that health education materials should be carefully selected for size, colour, pictorial accuracy, durability, portability, simplicity and subject specificity. For example, teachers worked better with materials which were content-specific to the curriculum of life skills and science subjects. Success also depended on the degree to which the solutions offered met both the needs and the available means of the target groups.

Manuals on pre-testing procedure emphasise testing for accuracy and comprehension, and the absence of distracting content (Bertrand, 1978). In our own pre-testing procedures we had to add other criteria which included the extent to which the pictures aroused interest, generated discussion and whether the materials were easy to use.

We found that existing materials produced by other programmes were often too small to be clearly seen in a clinic or classroom situation and only allowed participation of a few people at a time. As a practical response to this, we designed our own discussion posters to be of large size and printed on cloth for durability. The flip charts and discussion posters were found to be the most popular materials because they allowed easy adaptation for utilisation in a semi-participatory manner in almost any working environment.

Our evaluation found the use of two well-known participatory methods to be unsatisfactory in the community. We tested the use of a snakes-and-ladders game for nutrition and found that it was only suitable for a very small group to use at a time. We also tried the use of unserialised posters—which the learners can rearrange into a story of their own choice. However, this proved to be too difficult a method for our field staff and community and was discontinued.

Personal attributes of the users

Lack of educational materials was a common reason given by field staff to explain their lack of involvement in health education. However, as we have seen in Kumasi, simply providing materials on their own is insufficient. The excuse of lack of materials is frequently used to cover more deep-seated feelings within the individual field agents which serve as barriers to their involvement in more participatory approaches. These include beliefs both of the likely benefits as well as fears of possible problems that might emerge from using empowerment/participatory methods.

Field staff in Kumasi were more familiar with the didactic approach to transfer of information. The participatory approach requires the agent to take the position of a ‘facilitator’ rather than that of an ‘expert’. Field agents can feel threatened and insecure by an approach where the community draw upon their own experience and are encouraged to take a questioning approach which challenges their situation. In some clinics there was a poor working relationship between the mothers and the nurses. The mothers—especially young first-time mothers who were often very poor—felt that they were treated with little respect by the nurses and were kept waiting for long periods before starting the clinics.

Our initial training aimed to provide the skills to use the materials and build up confidence in their use. However, the initial level of training that we provided may not be have been sufficient to enable the agent fully to utilise participatory materials, even when supplemented with the manual that we had developed to accompany the learning materials. Regular supervisory visits by trained staff were needed to provide follow-up, support and encouragement to field workers using participatory materials.

Even with the most effective training and follow-up there are probably limits to what can be achieved by training alone in influencing attitudes and motivations. A more realistic strategy
would be to seek to identify field staff with an interest in and commitment to working in a participatory way. For example, in Kumasi a group of seven EHOs volunteered to carry out hygiene education in the district by rotating their activities between the sub-districts and at the same time encouraging other EHOs to join them in the markets and homes. In schools, we asked the head teachers to identify two teachers in their school who had expressed an interest in health education and who could act as coordinators.

**Situational factors**

It would be wrong to put the blame for the failure to implement participatory learning methods only on the field workers themselves. In Kumasi, as elsewhere in Ghana and other developing countries, field staff are having to operate under conditions that can make it difficult to utilise participatory approaches. One of the main problems with participatory methods is the need to have sufficient time, the right size of group and the right environment to use the methods and engage in discussion and dialogue. The participatory materials require the target group to cooperate for 15–20 min in each exercise and a location that was conducive to holding discussions.

In schools, the classes were large, sometimes up to 60 pupils, and often lacked even simple furnishing such as tables, chairs and blackboards. There was often nowhere to pin materials up. Laying the materials on the floor soon resulted in them becoming dirty, damaged and unusable.

At the clinics, the community health nurses had not allocated a specific time to carry out health education and tried to introduce it during clinics. This was unpopular with the attending mothers who had often been kept waiting and did not want to ‘waste further time’ on participatory exercises. Clinics were crowded and busy and the organisation of group work for participatory exercises was very difficult. A possible strategy would be to encourage field staff to re-organise their clinics to create ‘quiet places’ where discussion can take place or to look at strategies for breaking up large groups into smaller groups. Discussion posters were sometimes displayed permanently on walls and the nurses waited for mothers to ask questions about what they were for before supplying the appropriate information.

Many community members, especially traders in the markets, were unwilling to sit for this length of time whilst they could be conducting business. However, we found that they would be prepared to sit for a few minutes at a time out of curiosity, during which time two or three key messages could be transferred.

However, even with these strategies, situational factors posed genuine problems to the wider use of empowerment approaches and we often had to resort to a ‘semi-participatory’ approach for larger groups, which combined didactic and participatory methods.

**Support from peers/supervisors**

Introducing empowerment approaches involves challenging existing norms within institutions and needs to be accompanied by changes in job description and climate of reward/incentive for the field agents.

In focus-group discussions some teachers said that they had been denied access to the materials, which were locked away in the headmaster’s office. In some instances, because of the acute shortage of educational materials, people valued our materials very highly and were unwilling to risk getting them dirty, so they only brought them out for visitors. The headmasters had not been included in the training and this resulted in them giving little support to the programme.

The EHOs felt that they were under pressure from senior management to prosecute in order to generate income for the District Assembly rather than educate the community and stated that if they did not meet their quota of prosecutions they were threatened with a cut in salary. Overall, the system had a demoralising effect and led to a poor working relationship with the community who associated them only with prosecution. Members of the community avoided contact with the EHOs and sometimes actually ran away to hide when they saw them in the community.

It is therefore not enough to train the field staff alone. This should be accompanied by organisational changes to ensure that field agents have a clear responsibility to carry out health promotion, reflected in their terms of reference/job descriptions. We have found from experience that it is essential to include middle and senior management (headmasters, supervisors) in the in-service training workshops. Effective health promotion by field staff requires supervisory staff who actively encourage and praise staff who put effort and creativity into their health education work, as well as a system which recognises and rewards this through promotion and career development.
GENERAL CONCLUSIONS

Our focus-group discussions with the community showed that it is worthwhile using participatory health education approaches. These enhance the work of the field agents and are popular with the target groups who retain many of the messages portrayed in the materials. We found that the quality of the participation can be increased by the production of learning materials which are well-designed and pre-tested. However, it should not be taken for granted that well-designed materials will be automatically utilised by agents and the messages absorbed by the target groups. Although health promotion is often accepted as everyone’s responsibility, in practice only very few of the large number of field agents are actively involved in health promotion. Our experiences at Kumasi have shown that uptake of empowerment methods for health promotion depends on the selection, training and support provided.

The data on which we have based our findings have come from our small-scale operations research studies directed at providing practical guidance for the setting up of our health promotion programme. In the course of this study and other activities in Kumasi, we have identified three critical issues which would benefit from more detailed research.

The first area for research comes from the gap between the widespread call for empowerment and participatory approaches in the rhetoric of health promotion, and the virtual absence of any serious published research of the practical issues involved in disseminating these approaches.

The second area for research is to establish whether participatory learning methods, when used properly, are able to empower people. There is a need to establish an evaluation methodology for the use of empowerment methods. Indicators based on changes of knowledge, specific health behaviours or health status, however worthwhile, do not provide measures of empowerment. Yet it is not very clear what measures of outcome can be used for demonstrating that an individual or group has become ‘empowered’.

The third area for research is on the effectiveness of different participatory methods in the promotion of health and the extent to which they can be usefully combined with didactic methods. Empowerment and didactic methods are often presented as mutually exclusive, whereas a suitable strategy for many programmes will probably be a pragmatic mix of both approaches. Many of the field agents in this study preferred to use a combination of participatory and didactic approaches (semi-participatory). Such research might provide valuable guidelines on criteria for deciding when it is suitable to use participatory or didactic methods.

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