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Thinking our way out of the bottom of a pit latrine

by

Robert Collins and John Maluleke

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THINKING OUR WAY OUT OF THE BOTTOM OF A PIT LATRINE

Participatory research to solve a community sanitation problem

Robert Collins and John Maluleke

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1. INTRODUCTION

How we got involved

We came to be involved in the problems of rural sanitation while working with the Tiakeni Textiles Cooperative in the Northern Transvaal. Some people in the rural communities of the region and health workers from Elim Hospital asked for our help in developing a low-cost pit latrine.

We first learnt about the problems of sanitation when Tiakeni Textiles Coop built toilets for the local community school. From this initial involvement we developed the technical skills needed in order to respond to a request to help solve the sanitation problems faced by the community in Madobi Village. We therefore set out to see how we could help the villagers solve their problem which we understood to be that:

Statement of the problem

A women's group in the Madobi community has decided that they need pit latrines but they don't know how to build them.

Given this as the existing problem, the desired short-term outcome of our intervention in Madobi would be that:

short-term desired outcome

the women's group will build latrines.

In addition we had a medium-term outcome that:

medium-term desired outcome

the group will help others to learn about making latrines.

We hoped to progress even further than this however. Sanitation is only one of many problems that poor, oppressed rural people face. We therefore had a long-term desired outcome that:

long-term desired outcome

the participants would learn to challenge other problems in their community through the experience gained in the process of solving the sanitation problem.

We will discuss the success of this long-term goal in the conclusion. In the meantime, however, we would like to focus on the goal of helping people to build latrines.

As we saw it, our limited understanding of rural sanitation problems and our limited technical skills would not be sufficient to solve the problem. We needed to learn how to work with the community so that we did not reinforce existing social problems or create new ones by focusing on technical issues in isolation.

It was clear to us that while we had some information and experience about the technical issues in rural sanitation we needed to learn more about the organisational aspects of working with a group. For this we looked to the methodology of participatory research.

2. WHAT IS PARTICIPATORY RESEARCH?

Participatory research is composed of three inter-related processes:

2.1 Collective investigation of problems and issues with the active participation of the community in the entire process.

2.2 Collective analysis in which participants develop a better understanding not only of the problems at hand but also of the underlying structural causes (socio-economic, political, cultural) of the problem.

2.3 Collective action by the participants aimed at long-term as well as short-term solutions to these problems.

To this we would like to add that in collective action, it is through acting that people receive confirmation of their capability to overcome the problems that they face. The process is slow, but incremental, and there are no short cuts.

We will start the next section with a brief description of Madobi village and the Madobi Care Group, and the first steps of our work with the Care Group. We will then go on to show how we used the three processes of participatory research to overcome the problem of building pit latrines that was faced by the community in Madobi.

3. THE SITUATION

3.1 Madobi Village

The village of Madobi lies halfway between Elim Hospital and Giyani in the Northern Transvaal. The nearest public transport and clinic is at Majosi, a walk of 6 km from Madobi. Approximately 150 families live on stands marked out by the tribal authorities. The politically powerful figures in the community are the chief, recently installed by the Gazankulu 'homeland government', and the traditional healer.

Most of the men of Madobi are away working in factories and gardens in the cities or on farms. Like most other rural villages in South Africa the women do the work of maintaining family life.

3.2 Madobi Care Group

Unlike most other Care Groups the Madobi Care Group has no identifiable organisational hierarchy. They have no chairperson but seem to have elected individuals to fulfil specific

functions when needed. There was also no demarcation of who was a member and who was not. They did not only come together to learn about health issues and the sanitation intervention, but also to dance and arrange ceremonies, or to help each other, eg at funerals and initiation ceremonies.

3.3 Our First Meeting with the Madobi Care Group

Out first meeting in Madobi was arranged by the Elim Hospital Care Group motivators. About 50 of us sat together under a large shade tree on the outskirts of Madobi. We introduced ourselves as people who had limited experience in building pit latrines and even less in working with a community group. We described ourselves as people who were willing to learn to work together with the group to try to overcome the problems facing them.

In the beginning the group had no clear idea of how they would go about solving the problem. Some people wanted to begin work on concrete latrine slabs straight away; others said they would like to know more details about the cost and how to make slabs. We suggested that it would be helpful for us working as a group to have some meetings for discussion in the beginning so that we could find out more about the problems faced by the group. We asked the group to help us find a Tsonga phrase that described the process of working and learning together as a group. After discussion 'kudjondza kutirhisano' was accepted as describing the process. The outcome of the first meeting was that the group decided to work collectively and not individually, and to have at least two more meetings to discuss the problem of pit latrines.

Our meetings were characterised by a lack of structure - there

was no chairperson and people often arrived late because they had other commitments. In retrospect we felt that this lack of structure, while perhaps reducing efficiency in the short-term, actually served to locate control of the process in the members of the group as a whole and not in the hands of a few who could have become ad hoc administrators making decisions for others.

During the first two meetings the Care Group motivators translated the discussions and after that the group elected its own translators.

Given that there was agreement from the group to work together and to meet again to discuss the problem of building pit latrines, we used an approach shown in this flow-chart to guide the first two phases of participatory research, namely collective investigation and analysis:

4. FRAMEWORK FOR COLLECTIVE INVESTIGATION AND ANALYSIS

STATEMENT OF THE PROBLEM

↓

WHY DO WE NEED TO SOLVE THE PROBLEM?

↓

WHAT ARE THE CAUSES OF THIS PROBLEM?

↓

WHAT SOLUTION SHOULD WE USE TO OVERCOME THE PROBLEM?

↓

WHO WILL BENEFIT FROM SOLVING THE PROBLEM?

↓

WHAT NEW PROBLEMS WILL BE CREATED?

↓

ACTION TO SOLVE THE PROBLEM

Let us consider each issue in turn.

4.1 Statement of the Problem

During our first meeting we confirmed our earlier understanding of the need expressed by the group:

A women's group in Madobi village wants pit latrines but don't know how to go about building them.

We now go on to investigate and analyse this problem in terms of the experience of the participants.

4.2 Why do we need to solve the problem?

In answer to this question the group forwarded four main reasons:

4.2.1 If we do not have pit latrines the chief will fine us.

4.2.2 We hear that sickness is caused from using the bush as our toilet.

4.2.3 The village is becoming crowded; the bush is too far away for us to use as a toilet.

4.2.4 We don't like to shit in the open fields next to our homes because there is no privacy.

4.3 What are the causes of these problems?

4.3.1 Tribal authorities and fines

In discussing why the chief threatened to fine us for not having toilets, the group agreed that they believed that the chief really wanted money not toilets. If he was really interested in toilets he would have helped the people to learn how to build them. In a subsequent meeting with chiefs from the area we discovered that they used these

fines to raise funds to build classrooms and extend the offices of the tribal authorities. We learnt from them that the Gazankulu Community Development Fund contributes R4 towards a 'community' project for every R1 raised by the tribal authorities.

How did the people view the chiefs and their coercive measures? From our discussions about the role of the chief in solving the problem of sanitation, the group was able to see that this approach was in fact counter-productive because it reduced the possibility for people to build pit latrines for two reasons.

(i) The holes dug in order to avoid being fined were unsuitable for pit latrines - they were too big or in the wrong place. These holes had now become a danger in themselves because people and animals fell into them and they were also a place for mosquitoes to breed;

(ii) The amount of money and time available for building pit latrines was reduced further because of the effort spent in digging useless holes. Money that could have been used for building a pit latrine was used up on paying fines for not having one. Thus the role of the tribal authorities in forcing people to have pit latrines served to increase the domination of the tribal authorities over the people and to actually reduce the possibility of the people having pit latrines by using up their scarce resources of time and money.

In examining the part played by the tribal authorities in their actions towards the members of the community, the people taking part in this participatory research project were able to see how it was not only feasible but necessary for people to work together to solve the difficulties facing them.

4.3.2 Diseases related to poor sanitation

People heard from clinic staff and health inspectors that using the bush as a toilet causes them to get sick. While

they were able to recall the exhortations of the health authorities, they did not understand the links between poor sanitation and disease.

We discussed how sickness from one person spreads to others through human and animal contact with excreta, through contaminated food and water and by flies and mosquitoes breeding in faeces. From this we were able to see how the problems of poor sanitation are a concern for the whole community, not just those who are sick. This conclusion was also discussed in terms of other problems facing the community as a whole - food, water, land, money, transport and knowledge. The logic of collective action to overcome the problems of sanitation facing a community was determined through understanding the problem in its community and not its individual context.

4.3.3 Overcrowding, denudation of the land and lack of privacy

Previously there was enough bush close to the village for privacy so people did not feel the need for a toilet. This is no longer the case. The group identified the cause of the change as resettlement resulting in over-crowding and shortage of land. Customary sanitation practices were no longer possible and a new solution was needed. The group felt that this was the most important reason why they wanted to know how to build pit latrines. In other areas people had solved the problem of fines from the chief by building a structure that looked like a toilet but which was never used.

4.4 What solution should we use to overcome the problem?

We have seen so far that four main factors contributed to the need for improved sanitation in Madobi village. Given that most people were already familiar with pit latrines

and that our own investigations and previous experience indicated that pit latrines were the most appropriate solution to the problem of sanitation in this environment, we chose to use a system known as the ventilated improved pit latrine (VIP).

Extensive work had already been completed elsewhere to develop an effective ventilated pit latrine superstructure which overcomes the ubiquitous problems of flies and smell normally associated with pit latrines. However we felt the problem of a suitable concrete slab to span the pit and support the superstructure on top of it had not been adequately solved. From other examples we had seen that the concrete slab presented the greatest obstacle to building pit latrines, so we set out to design a concrete slab which is made as a kit of 12 pieces. We do not include the technical details of the concrete slab in this paper.

4.5 Who will benefit from solving the problem?

Was the benefit to be gained limited only to participants of the group who would now avoid being fined, have privacy, and reduce their risk of exposure to diseases associated with poor sanitation? Or could others also benefit? As the 2 "outsiders" inside this intervention together with members of the community, we wanted to see how a participatory research approach would contribute to group organisation not only for the personal benefit of those participating but also for others facing similar problems elsewhere.

We felt that a way of measuring this objective would be to see to what extent those directly involved in the participatory research effort would be willing and able to share their experience with others in their own community as well as other communities. We would like to believe that the extent to which this is happening at

present - which we discuss later in this paper - is an outcome of the method of working adopted by the Madobi Care Group.

4.6 What new problems will be created?

The main new problem which we identified as likely to emerge was that some people in the community would have latrines while others would not.

There are two problems within this:

(i) Would this create a new division of status within the community, or could it be helpful in bringing people together?

(ii) Would pit latrines for some but not for others be of any use in reducing the diseases associated with poor sanitation in the community?

In order to prevent a division developing between the "haves" and "have-nots" it was important for the participating group to know how to help other people in the village understand the benefits of pit latrines and to help them to build latrines.

This process would also work towards solving the problem of sanitation as a community problem, because effective protection against associated diseases will only come when the village as a whole has good sanitation.

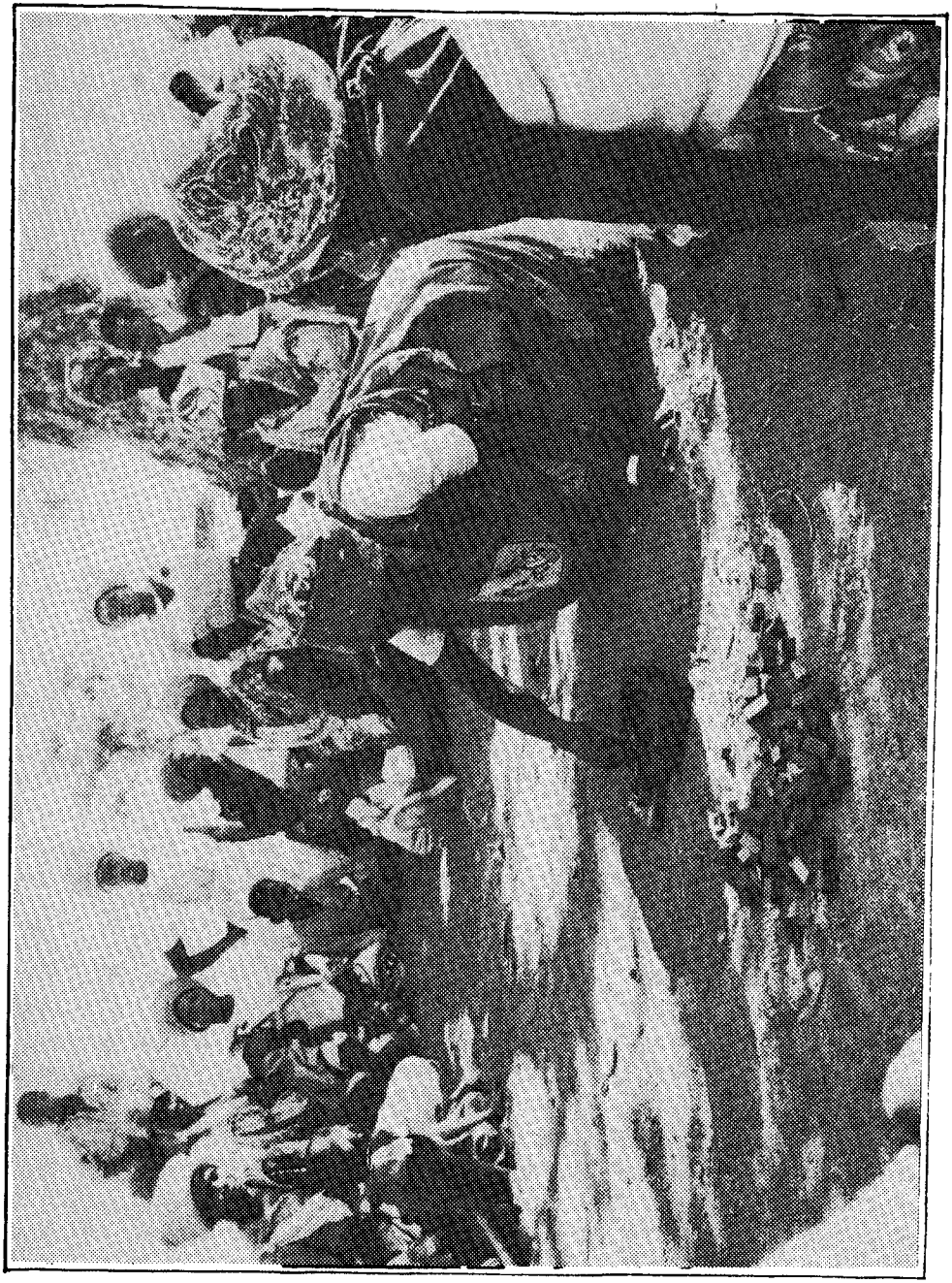
5. ACTION STAGE : LEARNING AND BUILDING

Having conceptualised the problem of sanitation at Madobi in its different dimensions in terms of the experience of the participants we then went on to the next stage of our participatory research undertaking - building pit latrines. We divided the action stage into 2 interrelated phases - learning about pit latrines and then implementing what we had learnt.

5.1 Learning about pit latrines

The learning phase took place during weekly meetings to discuss the problems of building pit latrines. We started with making prototype concrete slabs to test the design under the actual conditions in Madobi. This gave us the opportunity to determine the correct concrete mix for the aggregate used and to test the curing conditions that would apply. We were also able to anticipate construction difficulties as well as problems that some people might have in understanding the process of working with reinforced concrete.

We then made a scaled-down model pit latrine using small wooden blocks to represent the type of bricks used in Madobi. Using this model, small groups practised building alternative designs of pit latrines, so that each person could decide for themselves what kind of latrine super-structure suited their needs. (See illustration overleaf)



5.2 Building pit latrines

In building a pit latrine one usually starts by digging a hole. But without good planning the pit often outgrows the superstructure that covers it as we saw with the holes that people dug in order to avoid being fined by the chief. To overcome this the group decided to make concrete slabs first and only then to dig holes to fit the slab.

Small groups worked on making slabs at their own pace between our weekly meetings which provided the platform for discussing difficulties encountered in production. The group selected a site along the path to the village pump so that women fetching water would be able to see the work in progress and to discuss what was taking place. When enough slabs were completed and cured they were shared among the group and taken home.

When we came to digging holes and building the brick superstructure above the concrete slabs, small groups again worked together. Our meetings were now held at different homes so that we could learn from each others' experiences.

6. CONCLUSION

In conclusion we will attempt to answer whether our tentative experiment in participatory research was an effective approach to overcoming the problems of poor sanitation in Madobi. We will do so by summarising the outcomes so far:

6.1 Short-term outcome

Did participants build pit latrines?

Of the fifty women who originally started discussions, 48 now have completed latrines. Another index is to say that at the start of our intervention only seven of the 150 households in Madobi (4,6%) had latrines - none of which met the minimum requirements of a ventilated pit latrine. Latrines are now going down and coming up all over Madobi and 55 (36%) households have completed latrines so far.

6.2 Medium-term outcome

Have participants helped others to learn about latrines?

The desired medium-term outcome of our intervention was that the participatory group would extend the immediate benefit gained for themselves to others in their community. This has happened to the extent that the group is actively involved in helping others now interested to build latrines. People from neighbouring as well as distant communities have visited Madobi to learn how the women there have worked together to build pit latrines.

6.3 Long-term outcome

Can participants apply what they have learned to solve other community problems?

The concrete experience from working together to solve the problem of building pit latrines has helped the participatory group to become aware of the necessity to work together to solve a community problem and also of their capability to do so. One of the consequences of this action is that the women not only avoided being fined by the chief for not having pit latrines, but by their account the chief has since stopped confronting them on other issues such as imposing fines for collecting firewood. Thus there is already some evidence that people will take the lessons learned in one situation and apply them in solving other problems.

We acknowledge that this paper is exhortative in nature and that we have not critically examined our experience in this example of participatory research. We do not feel able to do so here because such an analysis must necessarily involve all the participants in reflecting on their own action. The limitations of time have prevented us from completing this stage of our participatory research undertaking.

We hope that in sharing our experience here we have at least shown how a participatory research approach to solving a problem provides an opportunity for developing the capacities to overcome that particular, and perhaps other problems. We have come to understand that while our own practical skills were important minimum conditions, more importantly it is the methodology of participatory

research that enabled us to work with the people in Madobi. It was this process which enabled all of us, collectively, to work our way around a problem, or, as the title suggests, to think our way out of the bottom of a pit latrine!

ACKNOWLEDGEMENTS

The women of Madobi took the risks in trying out something new in their community. Through our work with them they have helped us learn about the pleasure and pain of community work. We hope that they too have gained new skills in continuing their struggle to deal with problems that face them in their position in society.

We would like to acknowledge: Selina Mapghorogo, Florence Manganye, Len Karlsson, Theo Wassenaar and Erika Sutter who gave their advice and encouragement to our work. Colleagues in the Health Services Development Unit have made it possible for this work to continue.

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Quoting (in context) from these preliminary papers with due acknowledgement is of course allowed, but for permission to reprint any material, or for further information about the Inquiry, please write to:

SALDRU
School of Economics
Robert Leslie Building
University of Cape Town
Rondebosch 7700

Edina-Griffiths