

Facilitating participatory evaluation as a learning process

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Abstract

This article presents the experience of conducting an evaluation of participatory learning, within an action research project conducted in South Sulawesi, Indonesia. An alternative approach to evaluation was taken by focusing on learning, and creating dialogue with the community as a main strategy. We classified this project evaluation in terms of: the outcomes of the research project, but equally importantly by the learning that occurred for all groups of participants. In this connection, we discuss the basic differences between *traditional* and *constructivist* research paradigms. We conclude that strategies and methods employed in the evaluation itself are key elements to enable participants to clarify and articulate their norms and values, decide on action, and illuminate their learning and eventual empowerment and a sense of liberation.

Introduction

The dictionary meaning of the phrase “to evaluate” is to give value or to judge. Taking this viewpoint, evaluation may be defined as the act of judging or determining the value, merit or quality of something finished, ongoing or simply a proposal. The act of judging also calls for a definition of what is good or desirable and what is bad or undesirable.

Two categories of evaluation can be distinguished in agricultural development programs, the formative and summative evaluation. The differentiation between the two types of evaluation is concerned with the basic use of the value judgment (Petheram 1998). Formative evaluation is usually conducted to provide program staff with judgments useful for ongoing improvement of the program, while summative evaluation is commonly conducted after completion of the program for the benefit of the decision maker to determine whether the program had achieved its goal and whether the program should continue or not.

In this study, both formative and summative evaluations were conducted. The formative evaluation was carried out during the implementation of action as a part of a Participatory Action Research (PAR) process. The PAR methodology results in on-going learning throughout its implementation, and therefore the evaluation process played an integral part in the development of the study. Evaluation was built into all the stages of the research process and it determined the action orientation at each stage. It was aimed at improving and developing existing activities, and to establish whether those activities were reaching their goals or not. The summative evaluation was conducted towards the end of the research project's life and it aimed at reviewing what participants thought and valued about the process and outcomes of this research project, and to move towards a self-sustaining development process in the study area.

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The present research project was undertaken in Tombolo village South Sulawesi, Indonesia over a two-year period. PAR was employed as an overall strategy to investigate Tombolo village, and to support villagers and development workers in their *learning how to learn* in order to improve their own situation. The PAR first identified the problems and needs of the farmers, and then developed strategies with them to meet these needs. They learned and executed social research techniques and they took actions and interpreted the results of the actions based on what they had learnt. In their food production efforts, fodder security through the year was found to be the major constraint to cattle production. This was improved through integrating forage into their farming systems. Though this represented a ‘new’ technology’ for these villagers, introduction of the forages was adapted by them to local issues and needs. Details of the approach taken in this project and some of the outcomes have been described already in Habibie et al (2002a, b). This paper includes an outline of how reflection in the PAR cycle was undertaken by the different groups of actors during the course of the project.

The most common approach to evaluation used by Government Livestock Services in Indonesia was “measuring” things only to fulfill the need for accountability, and external evaluators would carry out the evaluation. The clients of the programs (farmers) were not generally involved in developing indicators for the evaluation. In this study, instead of using a conventional questionnaire method to evaluate the participatory learning process and to give value to its achievements, villagers in collaboration with the PAR team and development workers, developed some working strategies for evaluation that emphasised dialogue. Here, an evaluation based on a constructivist paradigm was undertaken, consistent with the principles of community participation. The community self-evaluation strategy that was carried out built upon the inherent critical and reflective capacities of the participants who were involved in this study. The researchers and stakeholders defined the topics to be examined in order to transfer knowledge relevant for future actions.

As a research project about social change, in the evaluation of this study, we were not searching for the desirable and undesirable things, but rather some reflections from the participants about the lessons they had learnt during the research process. The focus here was looking at what happened with respect to the activities carried out by the stakeholders, why participants thought these things happened, uncovering the factors that contributed to both the success and the constraints of the research project, the strategies employed, and what this research meant to stakeholders in terms of their everyday lives. It also included the reflections of the facilitators on the learning process.

Theoretical perspectives and Approach adopted in Evaluation

There has been a gradual shift from a notion of evaluation based on the conventional approach involving measurement, judgment and description by ‘an expert’ to a concept of a participative approach in which the people who engage in the research process participate in the creation of knowledge through review (Guba and Lincoln, 1989; Brunner and Guzman, 1989, Patton, 1989; Ernest, 1993, Narayan, 1995, Mayer 1996 and Wadsworth, 1997). Guba and Lincoln (1989) in their *fourth generation* evaluation introduced the constructivist approach to evaluation. From their perspective, evaluation is a process of construction and reconstruction of realities. It comes closest to giving full consideration to stakeholder concerns. Here, the evaluator should not only be responsive to the needs, issues and concerns of different stakeholders, but also acknowledge that the perspectives held by stakeholders themselves represent different values, assumptions and assessments of what is happening in the project. In other words, it is about bringing to the surface and negotiating the multiple realities held by different stakeholders. In this context, findings are not ‘facts’ in some ultimate sense but are, instead created through an interactive process that includes the researcher-evaluator as well as the many stakeholders

whose realities are put at risk by the evaluation, these need to be continuously articulated and renegotiated throughout the life of the project (Guba and Lincoln, 1989). Similar to Guba and Lincoln (1989), Greenwood and Levin (1998) put it that in the evaluation process, the recipients of the programs need to be actively involved in the process of interpreting evaluation results. This means that the evaluators collaborate with the stakeholders in gathering the data as well as making sense of the findings.

There are several reasons for the claimed low usability of evaluation reports for practitioners. One of the important reasons is that the traditional belief of evaluation emphasises the scoring of events using the principles of statistics and scientific method, and is often based on outside expert's perspectives, whereas a constructivist belief would focus on the real voice of the real people who are the intended beneficiaries of the project. Also, the conclusions arrived at by an evaluator with a tendency to only measure single measurable details may be too simplified, and may overlook the 'soft' issues that are difficult to measure - an aspect on which a constructivist view would place much greater emphasis. Guba and Lincoln (1989) illustrate these differences between traditional and constructivist beliefs, and a summary is shown in Table 1.

Table 1. The Contrasting conventional and constructivist belief systems on evaluation (from Guba and Lincoln 1989)

| Traditional belief | Constructivist belief |
|--|---|
| <p>Ontology: <i>A realist ontology</i> assert that there exists a single reality that is independent of any observer's interest in it and which operates according to immutable natural laws, many of which take cause-effect form. Truth is defined as that set of statements that is isomorphic to reality</p> <p>Epistemology <i>A dualist objectivist epistemology</i> asserts that it is possible (indeed, mandatory) for an observer to exteriorize the phenomenon studied, remaining detached and distant from it (often called 'subject-object dualism'), and excluding any value considerations from influencing it.</p> <p>Methodology <i>An interventionist methodology</i> strips context of its contaminating (confounding) influences (variables) so that inquiry can converge on truth and explain nature as it really is and really works, leading to the capability to predict and control.</p> | <p><i>A relativist ontology</i> assert that there exist multiple socially constructed realities unguided by any natural law, causal or otherwise. Truth is defined as the best informed (amount and quality of information) and most sophisticated (power with which the information is understood and used) construction on which there is consensus (although there may be several construction extant that simultaneously meet that criterion)</p> <p><i>A monistic, subjectivist epistemology</i> asserts that an inquirer and the inquired are interlocked in such a way that the findings of an investigation are the literal creation of the inquiry process. Note that this posture effectively destroys the classical ontology- epistemology distinction</p> <p>A hermeneutic methodology involves a continuing dialectic of iteration, analysis, critique, reiteration, reanalysis, and so on, leading to the emergence of a joint (among all the inquirers and respondents among etic and emic views) constructions of a case.</p> |

As a natural aspect of the action research process, evaluation occurred during this research process as a way of understanding and managing the relationship between theory and practice, between researchers and researched. This relationship builds by using dialogue as an important tool, and it is seen as interactive and linguistic relationship, characterized by joint action, joint involvement and shared responsibility. Everyone who participates in the process is jointly involved in discovering the reality, as well as the creation of a new reality (Van Beinum, 1998). Performing the evaluation process, the learning group commits to meet regularly to discuss the progress and the issues that they face. It was also assumed that the evaluation itself would occur through informal conversations among the community and the different groups of stakeholders.

The Evaluation Process

The PAR concepts in this particular research project originated as a means to help some smallholder farmers assess and solve their production-related problems. The evaluation process therefore occurred

through the AR cycle, in which the participants were encouraged to reflect on their action. The process of reflection, evaluation and action is presented in Figure 1.

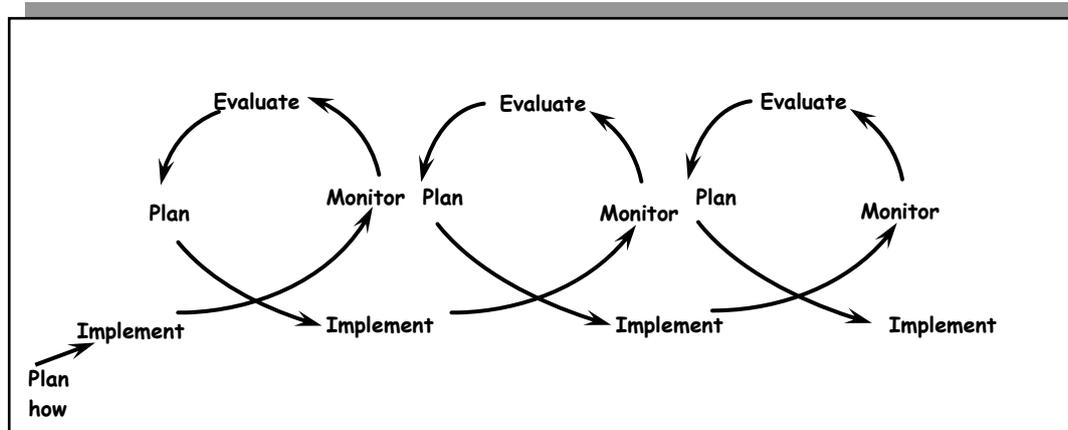


Figure 1. The action research cycle as an on-going evaluation process.

There were four groups of participants recognized. The first was the learning group of farmers (as co-researchers); the second was farmers who were peripherally involved (through group discussion); the third was the development workers (government livestock and extension officers); and the fourth was the AR team.

The formative evaluation during the different phases of fieldwork

The action-reflection cycle guided the participants and research team. Actions were planned and constantly evaluated. The break-up of action phases in this study into three monthly intervals was found to be appropriate by the participants in generating fruitful actions, which provided information for the next step. Participants had a chance to collect the information from their experiences, make meaning and learn from it. It led to the production of new knowledge that could be used as a basis for appropriate future action. Actions were implemented based on the reality of available knowledge, and were conceived as trials to be validated through practice, and accepted or rejected based on the experience of the outcomes of the practice. In this way the participants progressed and learnt at the same time, and learning was constantly applied to the process. The goals of evaluation at this stage of the research process were to:

1. Develop an understanding of livestock farm practices and the work of livestock development in the study area
2. Gain an overview of the important issues as perceived by the farmers and development workers who were involved in the management of this relevant farming system
3. Determine which problems required further investigation
4. Look for possible solutions based on local knowledge and circumstances.

Scarcity of fodder was found by farmers to be an important problem from the first PAR cycle. In the next phase, several activities were undertaken by the participants in order to improve livestock production and the work of livestock development (Habibie et al 2002b).

The summative evaluation of the research project

This evaluation was carried out 18 months after participants had been introduced to the concept of the learning approach of PAR. Evaluation here was aimed at encouraging a change of the extension approach used by livestock and extension services staff, as well as seeking to end the project for the AR team by evaluating outcomes. The evaluation in this context was a process of finding out and making sense of the experience of participants with the PAR in which they had been engaged. The questions were: Has the situation improved? Did the participants' action play a part in this improvement? Did participants learn and gain knowledge through this study? Which were the strong and weak points in the methods employed? The steps that guided the evaluation process were:

- Reflecting on discrepancies noted by participants
- Seeking follow-up answers to questions where appropriate
- Thinking through responses
- Reaching conclusions about what participants and others thought about aspects of the study, and what they valued and preferred
- Considering future action, and
- Acting on these where appropriate

Here, evaluation was not just focused on determining future action, but it also focused on giving a voice to the farmers who were usually silent. Dialogue (Bohm, 1990; Issacs, 1993) was used as a way of channeling farmers' voices into action in order to improve their condition. This strategy emphasised what the participants 'valued' in this research project

The summative evaluation methods

The summative evaluation took place over three months. It started with a series of in-depth interviews with the community members who were directly involved in the research project, which in this case included members of the learning group, as well as community members who were seen by the AR team as being able to benefit from an increased understanding of this research project, including ordinary farmers (male and female), and development workers (extension officers and livestock services officers). The process ended with a group meeting with the PAR team. For the convenience of participants and in order to encourage them to express their opinion and feelings, a dialogue was created with them, starting with simple conversations and informal discussions. The evaluation also included observations on the forage fields, during which casual conversations were held with their owners. The participants were asked some specific questions such as 'tell me a little bit about your forage field; tell me a little bit about your cattle; what significant changes did you find during this research project? What do you think about this project now and what did you expect from this project?' and so on. Moreover, this community conversation was often grounded in empirical data and focused on perceived outcomes.

A final evaluation workshop was also held in the village with the aim of sharing learning to improve the program. Participants were encouraged to comment on the data that was presented to them. The workshop focused on gathering individual interpretations, which were then shared within groups prior to conclusions being given. There were four groups of interviewees. The first was the learning group of farmers, group A; the second was farmers who were peripherally involved, group B; the third was the development workers (government livestock and extension officers), group C; and the fourth was the AR team, group D. The initial questions asked at the evaluation are presented in Box 1. These questions

often led to other questions based on the answers of respondents. These questions were guided by the work of Kemmis and McTaggart (1988) and McTaggart (1991) together with the work of Grundy (1992).

General questions to respondents (group A, B, C and D)

1. What do you think about this research project?
2. What did you get and learn from being involved with this research project? What significant lessons did you gain?
3. Why did you join this research project? What significant change did you find?
4. What do you think about the approach that we applied in this project?

In relation to forage management: (group A and B)

5. What do you think about your forage?
6. What is most important to you in managing forage?
7. What are the problems of forage? Why are there problems?
8. What do you think about planting forage?
9. Does planting forage affect to your family labour? Why?
10. Do you have any problems with planting forage? How do you handle it now?
11. Is your wife interested to look after your forage? Why?

In relation to the learning group (group A)

Participation:

12. Why did you join this group?
13. What interested you about being a part of the learning group?
14. What do you expect from participating in the learning group?

Learning process in the group:

15. What have you learnt so far through the experience of being a part of the learning group?
16. What do you think about the way we have been learning as a group? For example the way we solve problems etc?

In relation to extension workers and trainers (group C)

17. As a professional, what did you learn from being involved in this research project?
18. What do you think about PAR that guided the process of the research project activities? Were you aware of PAR?

In relation to AR team (group D)

19. Has the process gone as we planned?
20. Have we achieved desired goals?
21. What are some significant constraints in conducting PAR?

Box 1: List of questions posed to participants at the time of evaluation

The data analysis and transfer process

The information that was gathered from interviews and from the workshop was analysed through content analysis. An evaluation worksheet was used to help to identify important components of the research activities. Some of the questions raised by the PAR team in this circumstance were: What makes the information collected more than documentation of subjective conversation? How can this information from conversation have benefit for decision-making, and planning process in terms of livestock development work? We believed that this approach is difficult to evaluate, because it concerns a learning process in which activities and outputs cannot always be determined beforehand, and may change over time in unexpected ways (Defoer, et al, 1998). The information collected from the participants particularly reflected on (a) the activities that participants undertook, and (b) the lessons learnt from participating in those activities.

As part of the evaluation process, participants were required to give a justification of their practice to others. This enabled them to show how the evidence they had gathered and the critical reflection they had made had helped to create a developed, tested and critically examined rationale for what they were doing. Accordingly, in the workshop, participants were asked to re-examine this process, and as a part of this they drew on paper the relationship of forage production to their household, thereby identifying the linkages between forage and other aspects of the farming systems.

It was found that there were differences between genders regarding perceptions of the impact of forage. For example, women described that planting forage near the homestead benefited them because their children had more time to help them in doing housework, such as collecting water or firewood. Some male farmers saw that time saved by having a forage field could be used for rest and productive activity. Both fathers and sons appreciated the saving in their time, which resulted from moving from grazing animals to a cut and carry system. Gender differences were also seen when ranking indicators. Male farmers focused more on the productive and technical aspects, such as fattening animals, and which leaves animals preferred to eat, whereas the women were more concerned with the social aspects, such as having more firewood, and the labour reduction for children. The development workers gave more emphasis to the relation of forage production to the techno-science perspective, such as increasing the fertility of soil and preventing soil erosion.

Several indicators highlighted by development workers as important in relation to animal health, the aesthetic environment and the prevention of soil erosion, were not mentioned by farmers. What is interesting to note is that, although farmers were able to identify indicators, they had difficulty in differentiating between each indicator as to whether they had a direct impact or an indirect impact. For them all the indicators had the same value, which was to improve their cattle production in order to enhance their income.

Growing forage was a new concept for most farmers in this village. However, the idea had expanded gradually among the farmers. We observed from this study that it was better to start with a small group of enthusiastic farmers so we could visit them regularly in order to gain insights about their experiences of planting forage, as well as to provide technical information about forage management practice. Some farmers expanded their forage fields and started growing one or two additional varieties of forage in addition to the ones introduced through the project. This indicated that farmers learned from their experiences of planting forage, and gained insights to understand the advantages of forage to cattle production as well as for the soil fertility. As observed from this study, farmers tended to grow several varieties of forage rather than only one variety; for example 27 from 34 respondents grew more than one variety of forage on their land. Farmers chose the varieties of forage to grow based on their purposes and availability of land. From these experiences, development workers learned that offering farmers a broad variety of forages allowed them to select the variety that was appropriate to their local circumstances.

Reflections of the learning approach

Most of the participants considered that this research project was useful and felt that their expectations had been met. Their view was that this research project had benefits for them in terms of learning something new, sharing information, improving skills and meeting their needs. A large majority of farmers said that there had been improvement in the way they learned. All of the members of the learning group found that this learning approach was useful, although at the beginning they had felt that there was “too much theory and talking”. They also found that their learning behaviour had changed to become more active, and that they were willing to contribute more to discussion.

Most of the respondents found that the relationships between them had been improved through collaboration: meeting regularly, meeting informally and meeting based on needs. The entire learning group found that the relationship between farmers and development workers had improved, but some also commented that the relationship needed to be improved further in the future towards more informal meetings.

The interviews revealed that participating in this project had influenced the development workers' approach to farmers for the better. They claimed they were becoming more aware of the importance of farmers' knowledge and circumstances, and they also saw themselves as becoming good listeners. Similarly, farmers had improved their practice and attitude to learning. Forming the learning group had helped achieve this end. The *learning group* model for agricultural extension was still a new model to the study area, and there were several implications and issues that needed to be discussed before this model could be developed further. Some of these issues relate to facilitator skill, to the institutional support needed for adoption of the model, and to farmers' commitment to working as a group, particularly their willingness and ability to commit their time to meet regularly. Most of the respondents were aware that the project was guided by the PAR cycle. Among the farmers, the learning group members were more aware of the PAR process compared to others farmers.

Around 45 % of farmers in Group B mentioned that they knew about the PAR process because they were invited to the group discussion, and all the time the researchers talked about it. Some of the farmers mentioned that they had been told about PAR from the beginning of this research project. All of the development workers who were involved in this study mentioned that they knew about the PAR cycle, because they had been told about the time frame of the PAR process and they had been involved in the PAR process. Virtually all the AR team, development workers and the learning group of farmers felt that the PAR framework was appropriate, even though the majority had no prior experience with a PAR project. The important point found by the participants was that PAR was an appropriate framework for enhancing the quality of developing appropriate technology with farmers.

Some wider outcomes of the project

In this study the research team encouraged farmers to grow Napier grass in the unused land such as under *Kapuk* trees and near their homestead. Farmers found that the Napier grass could be grown well in hard soil, which had previously never been used for planting any crops or forage. On account of its high yields, Napier grass was particularly well suited for 'cut and carry' systems of animal production, such as for the smallholder beef production that were being encouraged through this study. The progress created by the learning group during this project increased the numbers of farmers planting forage. Many farmers from adjoining villages asked farmers in the learning group for seeds and cuttings of forages, and also to teach them the management of planted forage, particularly Napier grass. As mentioned in the workshop, most farmers from the village were interested in the activities of the project and at some time attended the meetings that were organised by the learning group without being invited.

As a result of the success in planting forage, the village received more attention from the District Government and from the Agricultural Department and thus gained more development resources. For example, the learning group was invited to help facilitate a workshop organised by the livestock development program at the district level; One of the members of the learning group was invited to be a representative from the district at the livestock farmers conference at provincial level, and to present his experiences about the success of planting forage, and to tell other farmers about the role of the learning group in supporting this end.

The incorporating of planting forage into the farming systems, particularly in uncultivated land, attracted the head of the district (*Bupati*) and the chairman of the district council to visit the village. When introduced to the context of the study by the first author, the head of the district became really enthusiastic and he promised to provide funding to train the people in forage management, to support the

cow-fattening group to build collective stalls, and to provide soft loans to expand the numbers in the cattle-fattening group.

The establishment of the cattle-fattening group was a by-product of this study, but it also provided powerful evidence of the farmers' empowerment. By being involved in the fattening group, some farmers have developed leadership skills through their role as a chairperson of the group. Group members also improved their personal autonomy and ability to increase their livestock production. The farmers also democratized the process of selecting a group chairperson; previously the village leader selected this role. This is a profound strategic transformation as nowadays they select their group chairperson by consensus according to the criteria of: Commitment to the success of the group; ability in speaking, writing, and reading; and ability in organising the other farmers.

During the course of this study there were three cattle fattening groups established, each with ten farmers. Previously raising livestock had only been a part time activity, however now the farmers develop the idea of raising cattle in a semi-intensive system, and the learning group made it easier for them to access information, services and support from outside the village. The learning group also helped farmers to develop their self reliance by sharing information and knowledge in relation to their cattle production, and to extend their group concerns to other commodities such as cotton.

Conclusions

The participatory evaluation employed in this study was built into the framework of thinking that is a necessary aspect of action research. In contrast to the common practice of an external evaluator undertaking a project evaluation, it has been shown here that all participants in the research process can be engaged at crucial points in the evaluation, consciously and as an on-going activity. This enables the participants to remain aware of the benefits of the facilitated learning model, the concurrent developmental changes in their situation and the important role of the learning group in the whole process.

Dialogue (Bohm, 1990; Issacs, 1993) has been the core of this evaluation process. Dialogue was the means to help the participants focus their attention on reviewing what the project had meant to them through sharing the meaning achieved through democratic conversation. Values and assumptions were freely discussed. Personal experiences were used to demonstrate opinions. The broad opinions of participants were explored in order to establish a common understanding about the benefits of the research project. Through dialogue they examined their knowledge (understanding, skills and values) and interpretive categories (the way they interpret themselves and their action in the social and material world). In accordance with the concept of dialogue in this circumstance, the participants learnt to witness their collective thinking and to unfold meaning together, to become aware of how their thinking and the shared meaning created by them was impacting on them to get the results that they desired. In this process new actions emerged as a by-product of the dialogue. Bohm (1990) suggests that the original meaning of dialogue was a stream of meaning flowing among us and through and between us - a flow of meaning in the whole group, out of which will emerge some new understanding, something creative. He suggests that dialogue is associated with representative democracy, where each individual takes turn to speak and be fully engaged as a part of the collective effort.

Several strategies were adopted to achieve the quality of dialogue in the group situations, to ensure the trustworthiness of data gathered, and to make adequate demonstration of the participant perspectives to further ensure the authenticity of the study. Through this evaluation process participants observed that

the learning approach that was employed in this study enabled them to improve their capability to work collaboratively to improve their situation. In this context, the working partnership between farmers and development workers that was developed became a learning partnership, and was seen to be a necessary condition for further improving livestock production.

Although the primary researcher had more knowledge and power as a leader, she tried to use this power sensibly to ensure that the process went on participatively, and that all the members had equal responsibilities during the research project. A democratised climate was created, always trying to balance the authority and responsibility of the members of the research team, while also developing collaboratively the relationships between the research team, the farmers, and the development workers. Therefore, this researcher took the role of the 'outsider within' (Kemmis & McTaggart, 2000) and worked side by side with others to enrich her understanding *from the inside out*, while coordinating others *from the outside in*. This understanding enabled the research team to join with the participants to improve their situation as well as to achieve their own goals. This was a challenge to the researcher's status, in that others by habit assumed that she knew everything.

Cousins and Earl (1992) argue that participant evaluation from PAR and other forms of action research is limited to a normative and ideological research orientation, rather than being an evaluation itself. It is our view that the working strategies and methods employed in the evaluation itself are the key elements, enabling it to be responsive to stakeholders concerns. Through appropriate working strategies, knowledge and experience are generated for collective use. Our experience with this facilitation of dialogue within a learning community suggests that it needs to start by presenting data to the participants, and then continue by encouraging a critical examination of this data. Throughout our dialogue, participants made explicit the values and assumptions they held in relation to this data. We agree with Brunner and Guzman (1989) who defined evaluation as an educational process through which social groups produced action-oriented knowledge about their reality, clarify and articulate their norms and values and reach a consensus about further action. Such action, learning and empowerment of participants are obvious outcomes of being engaged in PAR, and further illumination of these to participants through the evaluation process, as Roberts and Jennings (2002) concluded, could also be liberating.

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