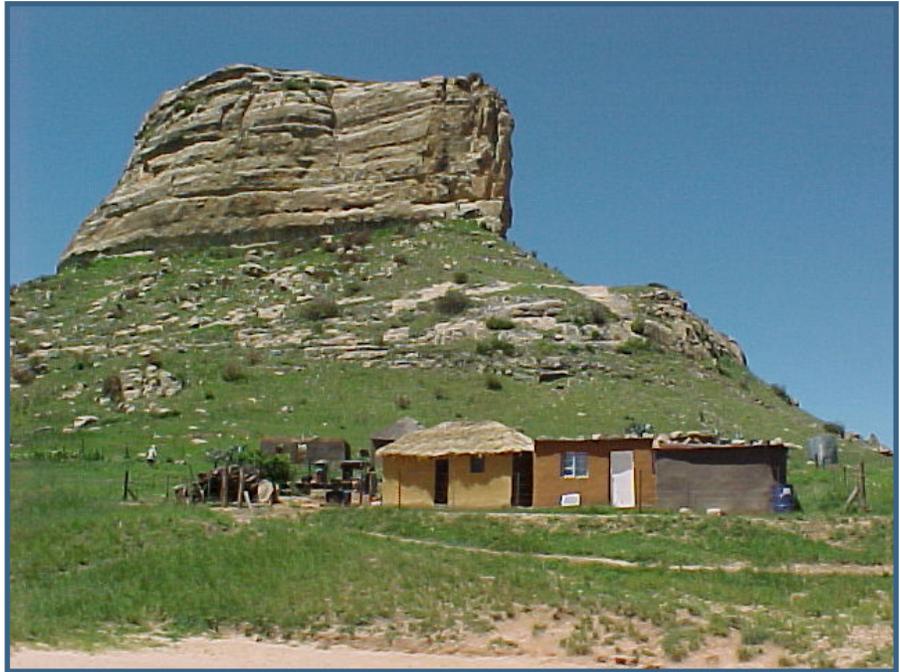


*Chapter 9:  
Critical  
reflection*



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## 9.1 INTRODUCTION

*“The process of analysis should not be seen as a distinct stage of research, rather that it is a reflexive activity that should inform data collection, writing, further data collection, and so forth. Analysis is not the last phase of the research process, but should be seen as part of the research design and of data collection” (Coffey & Atkinson, 1996:6).*

The logical, cognitive process followed in this chapter is outlined in Figure 9.1. First of all I felt it necessary to reflect on the originally stated aim of the study, the goals of the intervention, the approach used and ultimately the findings and outcomes. I have also shared some personal frustrations. These reflections led to the identification of certain limitations and gaps in the study. The particular delimitations are also highlighted. Possible solutions to the identified limitations and gaps were incorporated in the constructed model (presented in Chapter 10). Insights were also gained, which directed the list of lessons learned and recommendations for future research, discussed in Chapter 11.

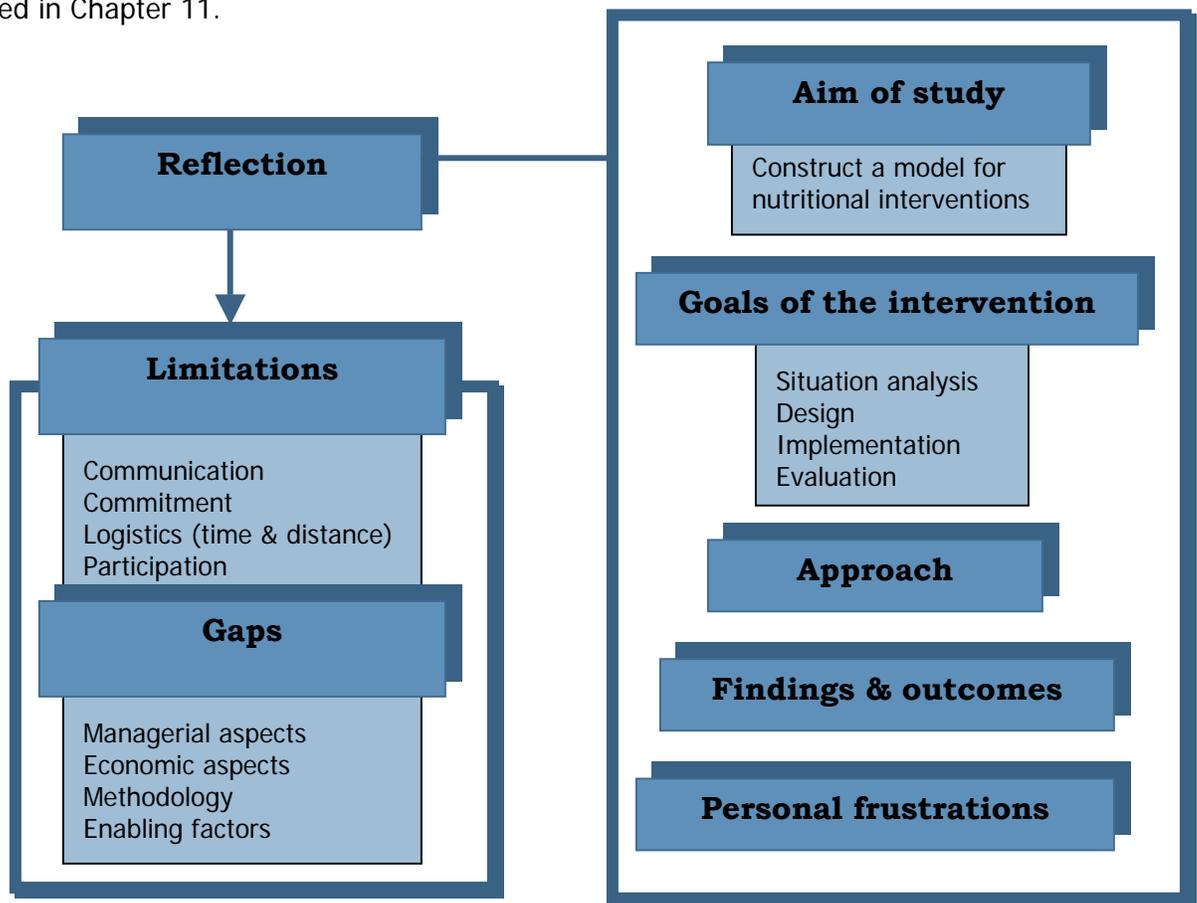


FIGURE 9.1: OUTLINE OF CHAPTER 9

## 9.2 AIM AND GOALS

The aim of the study was to devise a model suitable for nutritional interventions in rural communities on commercial farms. More specific goals were to understand and describe the specific nutritional needs and problems on a commercial farm and to address these needs and problems by designing and implementing effective, relevant nutritional interventions. Further more, I wanted to evaluate the process and the outcomes of this intervention. This sequential process was structured and applied to a particular community in order to devise the model. This model was theoretically validated with current findings on the local situation, which were extended through comments from specialists in the various related fields and comparisons with findings from other studies reported in the literature.

Other goals were to strive for community ownership of the intervention, to render support to the participating members, to mentor degree-based training of post-graduate students and to strengthen capacity building at community level through improved nutrition, better health, and better quality of life. The goals of the intervention to be discussed here are set in terms of the four procedural phases. Each goal (specific phase of the intervention) constituted various objectives. Each objective is mentioned followed by a statement on the degree to which the objective (s) were attained. A brief discussion follows.

### 9.2.1 Phase 1

The objectives for the first phase (**situation analysis/needs assessment**) were the following:

1. Explaining the overall aim of the research study to all involved stakeholders (e.g. farm owner, community members, other farm workers like managers, health and agricultural workers from local government)
2. Obtaining consent and commitment from all involved stakeholders
3. Describing the nutritional situation
4. Identifying specific nutritional problems
5. Assessing the various identified nutritional problems
6. Executing further inquiry into the assessed nutritional problems
7. Translating those problems into felt/real but addressable needs
8. Identifying the most appropriate means and strategies for intervention
9. Establishing a basis for the designing of a suitable intervention

I can say with confidence that these objectives were fully attained. I want to emphasise that other related information can also be gathered, depending on the anticipated problems or interests of the participating individuals, people and team. This could include food access (various resources, food production, preservation), food adequacy (safety, quality, quantity, diversity), stability and sustainability (coping strategies and safety nets).

### 9.2.2 Phase 2

The objectives for the second phase (**design**) were:

1. Presenting the identified needs and problems to the household and community members to reflect local values and agreement
2. Involving the household and community members in prioritising the identified needs and problems as far as possible
3. Identifying a key informant in the community in agreement with the attending community members, to assist with the implementation of the intervention
4. Developing clearly conceived goals and objectives for the intervention in collaboration with the involved participants
5. Designing the facilitation plan (strategies, messages, learning activities, resources and outcomes) for the intervention guided by the set goals and objectives
6. Choosing the most appropriate program format including procedures, methods, techniques and support material for implementing the facilitation plan
7. Designing the evaluation plan in terms of process and outcome.

The first three objectives were fully met. To put the fourth stated objective into perspective, it must first be said that we were still at the starting stage of the intervention and the various involved partners were not acquainted with one another yet. Full participation would thus not be very realistic at this stage. Goals and objectives were developed, but not with full participation of the participants. Language problems were the primary barrier, which did set limitations to communication, understanding and construction of meaning. Although the field worker could speak the language and was accustomed to the culture, I am convinced that some information did get lost in the translation process. I was satisfied with the designed facilitation plan (fifth objective), the choice of program format (sixth objective) as well as the evaluation plan that was designed (seventh objective).

### 9.2.3 Phase 3

In terms of the third phase (**implementation**) the objectives were:

1. Preparing of the team, participants and the ambience to enhance learning
2. Conducting, coordinating and integrating the facilitation plan
3. Monitoring and giving feedback to the community
4. Revising and adapting the facilitation plan
5. Repeating and reinforcing the messages.

Reflecting on the attainment of these objectives: in my opinion the team was well prepared (first objective) in terms of the approach to follow and methodology to use; to the extent to which theoretical knowledge and limited experience allowed it. These were abstract and complex concepts and I was uncertain about the meanings that the participants assigned to these concepts. Conducting of the facilitation plan (second objective) could have been timelier and more regular, but time limitations of the involved team did not allow otherwise. Coordinating with the local health system was not successful, probably due to time constraints and limited resources on the side of the health personnel as well. It is however important for any community-based intervention to have the local health authority on board as a stakeholder. They could have made significant contributions in terms of reinforcing messages and sustainability.

Integration with the home vegetable gardening activities (in my opinion) were also not fully established and there is still scope for continuation in this regard. Drought and hail restricted the establishment of the gardens. The agricultural extension officer also did not do the follow-up visits as planned. A longer period of involvement could have tightened the link between vegetable gardens and nutritional status. Although a nutrition education session was held, it should have received more emphasis. Full integration is also needed to enhance the credibility of the research team and to establish a long-term partnership. Although monitoring (third objective) was done regularly, no established system was in place, which would have made the evaluation process easier to perform. Such a system, however, was not stated as one of the goals of the intervention. Feedback was given regularly to the community on a satisfactory level for both parties involved. The program plan did not need to be revised and adapted (fourth objective) in terms of strategies or methods used. Repeating of messages occurred at three different intervals, and recognition, praising and incentives reinforced all the observed, improved hygiene practices – meeting the fifth objective.

#### 9.2.4 Phase 4

Objectives set for the fourth phase (**evaluation**) were:

1. Assessing the implementation of the interventions in terms of the pre-set goals and objectives (process evaluation)
2. Determining the outcomes of the interventions as it occurred in the targeted commercial farms in terms of improvement of hygiene and sanitary practices (outcome evaluation)
3. Empowering household and community members (females specifically) as active participants in program planning, implementation and evaluation
4. Enabling household and community members to critically analyse their own particular situation and problems
5. Establishing community ownership of the intervention.

The process that was followed during this intervention (first objective) was much more important to me than the actual study and results attained. This process provided opportunities for the research team to learn more about implementing PAR in rural communities, to learn from the community itself and applying that knowledge into a constructed model for future projects. These experiences are summarised into a set of lessons learned (see Box 11.1).

Criteria for process evaluation included encouragement, motivation, participation and collaboration of the participating community members. It further involved aspects of the planning process, participant learning and program structure (format, content, instructional method). The underlying idea within the process was to use the people's existing values to promote safer hygiene and sanitary practices. This is because a better quality of life, self respect and respect from neighbours, convenience and cost saving are stronger motives than disease avoidance. Most of the participants (n=21) were enthusiastically participating in the planned activities. The participants expressed being encouraged and motivated to implement the stated hygiene and sanitation practices and conditions; being capable to keep up with the practices and conditions because it did not involve a large proportion of money, time and effort; as well as personal benefits from being part of the study like cleanness and well-being.

Criteria for reaching the second objective were safer hygiene and sanitation practices and improved hygiene and sanitation conditions, which included implementation of the seven summative core messages. Outcome evaluation was only done on a limited scale, because the effect on nutritional

and health status of community members will only become evident after a longer period of time. A received set of educational material regarding hygiene and sanitation (in the form of posters) were used as reminders to continue with the implementation of the promoted practices and conditions. All the participants expressed the intentions to perform the desired behaviours but only 83% (n=18) managed to do so. Improvement in hygiene and sanitation conditions did occur within the community, although it was not statistically significant (see 8.3.1.4). New pit toilets were also constructed – one for the use of small children and two for households that did not have any previously.

Empowerment (third objective) involved the setting of opportunities to enable participants to identify their own problems, to facilitate the research process and to implement strategies toward achieving positive change. Although the community members participated in the study and intervention, it is important to realise that participation in itself do not foster empowerment. Participation can only be served as a manipulative tool towards empowering people (Kleiner, 2002:4). In this study, participation was only in its initial stages and full empowerment was therefore not visible yet. To measure how much participation and empowerment was achieved remains a subjective assessment (Babbie & Mouton, 2001:317).

It was very problematic to enable the participants to analyse their own situation critically in order to create solutions to improve their quality of life (fourth objective). All they could see was their immediate situation - poverty and misery. Very few had hope for the future in terms of their children getting a higher education and a well-earned job, earning more money themselves and improving their household quality and immediate environment. To a certain extent, ownership of the intervention was established (fifth objective). The possibility of being sustainable could have been increased if the whole community were involved. The men should have been included because they are the authoritative figures and could act as motivators of change. The children should have been included as they are not only the future generation, but also the most vulnerable. Poor hygiene and sanitation, feeding and care practices have the greatest impact on them.

### 9.3 APPROACH USED

I wanted to understand and describe the nutritional needs and problems of a rural community on a commercial farm. I had experience in community work and did participate and manage interventions in rural communities before. However, the PAR approach was new to the team and me as well as to the participants of the study. We all had to learn how to participate in making decisions. This learning process took place within the context of one specific need that was identified and addressed.

Intellectual knowledge is power and researchers need to transfer the ownership of knowledge to the participating community. When the research team withdraw from the community, the skills, experience and newly acquired knowledge should not be taken with them (Stoecker in Minkler and Wallerstein, 2003:99). A community-based research study done within the paradigm of PAR cannot only be seen as a research project. It is a social change project of which research is only one aspect. Research is only a methodological way to reach the particular goals as stated together with the participants. Action-orientated, community-based projects can only be conducted by academics that are willing to be participatory researchers; who are committed to transforming the social relations of knowledge production and to democratic participation in the research process.

When people are guided to identify their own needs and problems, to develop their own ideas, to discover their own plans and solutions, only then do they possess and put into practice what they have learned. The female adult group on Oranje farm was no exception. These people have a grounded understanding of their local conditions far beyond what researchers can gain, unless they live within that specific local community. Likewise, researchers bring with them skills and perspectives often not present in the local context, including knowledge about how to design and implement interventions and learning activities. This asymmetry in skills and local knowledge can be an important force in co-generating new understandings. The parties should engage with each other to make sense out of the situation (Greenwood & Levin, 1998: 118).

At the beginning of a research process, the outsider (researcher) makes decisions and teaches and trains local participants on topics that both consider important. At the same time, the outsider is responsible for encouraging insiders (participants) to control their own development process. It is the researcher's obligation to let go of the group near the end of the intervention. The researcher has to play the role of facilitator and change agent to initiate opportunities for participants to

develop the capabilities and skills in order to take control and direct the ongoing developmental process according to their own interest (Babbie & Mouton, 2001:317). For participants to become active players in a change process, they must be allowed and supported to exercise power. The initially asymmetrical situation between participants and the researcher can be balanced only by the transfer of skills and knowledge from the researcher to the participants and the transfer of skills and knowledge from the local participants to the outside researcher. In the end, the process must be handed over to the participants (Greenwood & Levin, 1998:119).

During the co-generative processes to solve identified needs and problems, the participants learn new things about the problems they are facing and often revise their understandings in fundamental ways. The outcomes of this collective process also support the creation of new-shared understandings. The larger this shared grounds, the more fruitful the communication has been and the greater the likelihood is that further insights can be developed through reflection and actions based on this shared knowledge. This in turn can open up new ways of formulating problems, and thus result in ongoing learning from all parties.

In an ideal world, groups for whom the research is meant to benefit would always initiate PAR. In South African rural communities, this is rarely the case. Having limited or no access to formal education, the great majority remains illiterate. People generally have a limited capacity to evaluate techniques that are most often derived from acquired beliefs immediate observations. A further hindrance to PAR derives from the cultural ambiguity of participation. From a Western perspective, participation involves the open exchange of arguments and ideas. It sanctions the right to question, and it legitimate the prerogative to be different, to conduct experiments and to make mistakes. In many rural regions in sub-Saharan Africa, direct questioning and open dialogue among different subgroups are shunned and experimentation and mistakes are regarded as conveying unacceptable risk. Where people have been previously manipulated by other more powerful forces, intervention by outside researchers, even those espousing principles of dialogue and participation, is likely to generate suspicions or deep concern (Chambers, 1989).

For researchers, PAR in rural African communities poses an enormous challenge. Researchers have to strive to assume some skills normally related to ethnography and community development work. They must be able to identify those individuals with whom collaborative work will be most effective. They must also determine the forms of relationships that can simultaneously accommodate prevailing socio-cultural norms and the objectives of participatory involvement in applied research.

Researchers must furthermore establish relations with people in order to learn and teach together on an equal footing. As catalysts of a novel exercise, researchers must also know when to comply to the suggestions of the people, where these are feasible and appropriate. If these suggestions are not, researchers should explain the foreseen difficulties and shortcomings and then negotiate alternatives (Maclure & Bassey, 1991:191).

Community participation builds and strengthens the capacity of community residents to address future health risks, through education, outreach and training (Smith & Smitasiri, 1997). This study was committed to conducting research that would benefit the participants either through the direct intervention or by using results to inform action for change (Swanepoel & De Beer, 1997:5). Remedial action must be taken. The refinement of culturally sensitive educational and participatory processes depends on further experience in community-based interventions.

#### **9.4 FINDINGS AND OUTCOMES**

*“Relevant actions to solve the problem at hand are the first outcome of an action research process”* (Greenwood & Levin, 1998:85).

Findings from the needs assessment were prioritised and incorporated in the design and implementation of relevant interventions. Findings from the evaluation phase were incorporated into the constructed model discussed in Chapter 10. The outcomes of the research study as stated during the research design (Chapter 3) were:

1. A generic model for nutritional interventions in rural communities on commercial farms
2. A basic field of knowledge regarding household food security on commercial farms in South Africa, including academic knowledge and local knowledge (also referred to as traditional/insider wisdom and expertise)
3. Improved household food security as experienced by adult female community members
4. Socially meaningful research results (as experienced by the participants)
5. A detailed dissemination report (as evaluated by the study leaders and external examiners)
6. A set of educational material regarding identified needs for each household in the community
7. Publications as a means to communicate research results to international and national health, economic development, and/or environmental policy-makers, academics and the public

8. Community ownership of the intervention
9. Support, mentoring and degree-based training of students from previously disadvantaged communities
10. Capacity building through providing opportunities for interested scientists for career development in the health, environment and social sciences, with specific reference to the methodological tools in use
11. Strengthened capacity at community level through improved nutrition, better health, lower medical cost, improved learning abilities, productivity, and better quality of life.

These outcomes were reached in the following way:

### **First outcome**

The model was developed, verified and adapted (see Chapter 10). This model can be considered a tool for researchers to use during the modus operandi of community-based nutritional interventions, specifically in rural areas on commercial farms. It represents a holistic, transparent picture of all the components and elements to consider and can therefore be applied in any other context, addressing different needs in rural communities as well as other aspects arising. The model as such is too comprehensive to be quantitatively tested on other commercial farms, but should rather be qualitatively verified through various applications in different contexts.

### **Second outcome**

A basis of academic and local knowledge on nutritional situations on a particular commercial farm in South Africa has been established. This basis will be expanded when future studies are implemented on other commercial farms. Various cultural groups can then be compared in terms of nutritional status and factors influencing that. This study was also seen as a pilot study for one of the research focus areas of the Foods/Nutrition section of the Department of Consumer Science in collaboration with the Centre for Nutrition. The basis has been established and verification of alteration can now commence.

### **Third outcome**

Community members did not experience an improvement in their household food security status yet. I foresee that to happen only over a longer period of time, when the home vegetable gardens with a stable yield are more established. Future projects addressing the other needs (dietary diversity and food coping strategies) will also add to increased food security.

#### **Fourth outcome**

The applied results of the research study could be considered as a way in which systematic knowledge is returned to the people in a material form. The active involvement of those who are directly affected by the intervention and who are considered the beneficiaries is essential for meaningful problem solving (Babbie & Mouton, 2001:319). The intervention did meet the needs of the participants and were compatible with their cultural values. Therefore it can be said that the intervention was agreeable with the participants and meaningful to them.

#### **Fifth outcome**

Two promoters guided this written thesis. At the time of publication, two external examiners will also have approved it. It is considered a detailed report of the conducted research study.

#### **Sixth outcome**

A personalised poster was constructed for each participating adult, female community member. These posters were designed and printed by staff from the Department of Telematic Learning and Education Innovation at the University of Pretoria. See Addenda B for a reduced-size example of such a poster.

#### **Seventh outcome**

To date a poster presentation on preparation work done for this study was presented at the 5<sup>th</sup> International Conference on Dietary Assessment Methods, 2003, Chiangrai Thailand. An oral presentation was accepted for the 20<sup>th</sup> Conference of the International Federation of Home Economics, Kyoto, Japan, 2004, with the title "Needs assessment – applied Participatory Action Research for nutritional interventions in a rural community in South Africa". I envisaged other presentations to follow at the following conferences:

- 18<sup>th</sup> International Nutrition Congress, Durban, South Africa, 2005
- 6<sup>th</sup> International Conference on Dietary Assessment Methods, Copenhagen, 2006
- 15<sup>th</sup> International Congress of Dietetics, Yokohama, Japan, 2008.

Chapter 5 was published (Green, Botha & Schönfeldt, 2004) and chapters 6 and 7 will be combined and adapted to article format and submitted to any of the following accredited journals for publication: '*Health Education Journal*'; '*International Journal of Hygiene Education*', '*Journal of Tropical Medicine and Hygiene*', or '*Journal of Nutrition Education and Behaviour*'. Chapter 8 will be

send to the *'Journal of Evaluation and Program Planning'* and an adapted form of chapter 10 to *'The Journal of Public Health'*.

### **Eighth outcome**

As mentioned previously, ownership of the intervention was established to a certain extent, but could have been done more so if the male community members were also included. They could have acted as the social pressure needed to motivate behavioural change.

### **Ninth outcome**

One student (Matla, 2004) finished her Master's thesis and two other students are still in the process of doing so. These students were supported and mentored by other involved study leaders and researchers.

### **Tenth outcome**

I hope that with this study, I have inspired other interested scholars and researchers to apply the methods, instruments, strategies and approaches developed during this study in similar studies in future times.

### **Eleventh outcome**

In my opinion, the nutritional situation of the people on Oranje farm could have been much more fully addressed. We could have made a more significant contribution to the lives of these people, had the other involved students also directed their research studies towards community development. In reflection, it was a disappointment to me that the other involved researchers and students could not all participate in attending to the needs of the community.

Nevertheless, we (the research team of this study) did serve as catalysts and facilitators of the process towards strengthened capacity on community level. This process included dialogue, joint research, and empowering people to take action in solving their problems. I know that we have contributed to the welfare and quality of life of the people living on Oranje farm. I am also confident that the aspects we have taught them will be remembered and carried over to the next generation.

## 9.5 PERSONAL FRUSTRATIONS

I felt enormously frustrated by not knowing exactly what was said during interviews and group discussions. Voice recordings were made and translated, but still I was left with the feeling of incompleteness. Something was missing and I was convinced that important information was left out. The people were also illiterate and I wanted to them to keep record of their experiences and perceptions on the intervention. Their personal judgements, reactions and impressions were mainly lost to me.

*“The question to be researched (problem statement of the study) must be of major importance to the participants or the process will go nowhere”* (Greenwood & Levin, 1998:116). In retrospect, the issue that were addressed in this study (hygiene and sanitation) might not have been that important to the community members. We as a research team were convinced that it was important to the community and we did go through efforts of convincing them of the importance. Although they understood what we were able to assist them with and agreed that hygiene and sanitation should be addressed, the question still lingered in my mind ... is it really important to them?

## 9.6 DELIMITATIONS, LIMITATIONS AND GAPS

For the purpose of this discussion the term ‘delimitation’ was seen as the boundaries or restrictions of the study, the term ‘limitation’ was seen as a restraint or constraint and a ‘gap’ was seen as a shortcoming or weakness.

The *delimitations* of the study were that it was restricted to a particular geographical area (North Eastern Free State province of South Africa), specific cultural group (South Sotho), specific farm (Oranje) and community members living on that farm. Certain *limitations* were already envisaged before the start-up of the study, as described in Chapter 3. These were problems regarding communication and the risk of losing deep-rooted meanings and linguistic nuances. Non-commitment of certain community members and stakeholders (farm owners, health and agricultural workers from local government), time available to conduct the study and logistics, such as the distance to travel to the community, were also constraints. Limitations of community-based interventions usually are the time necessary to discuss problems, co-ordinate decisions, plan and implementation, mobilise local resources, monitor and evaluate the processes and train people

(WHO, 1991; Ferrel, 2002). The Western concept of time is greatly influenced by the clock, whereas in African time, interpersonal relationships take precedence over everything else. Other limitations were the lack of infrastructure, especially in terms of transportation, which had an impact on access to resources like food and cleaning agents for the farm workers.

*Gaps* in the study and research design were identified in terms of managerial aspects (partnerships that were not formally formed), economic aspects (funding), methodology (instruments that were not sufficiently tested) and enabling factors that were not addressed. These four aspects are consequently discussed. Recommendations to bridge these gaps in future are discussed in Chapter 11.

### **9.6.1 Managerial aspects**

In many countries worldwide, weak management is often cited as the reason for failure of interventions (Dennill *et al*, 2000:188). Weak management in this study was in my opinion due to a lack of formally documented partnerships. No written agreements were constructed, specifying the obligations of all the involved partners. Partners within this research study were the Agricultural Research Council (ARC), the Centre for Nutrition, the farm owner, post-graduate students and staff from the Department Consumer Science. The ARC was contracted to train and establish a vegetable garden as a demonstration plot, as well as a nursery for sweet potatoes on the farm. The Centre for Nutrition sponsored the study. Although a research proposal was presented before funds were allocated, the research team was not informed of any documented agreement. Even within the research focus area of the Department of Consumer Science, no documents were drafted and signed to indicate liabilities and commitments. Disagreement regarding the approach that was followed in this study also contributed to a *laissez-faire* attitude. Formalised partnerships could have enhanced the credibility and scientific judgement of the intervention.

### **9.6.2 Financial aspects**

Closely related to the managerial aspects are finances. Funding is another aspect that can have a profound impact on the success of a research project. It took us over two years to get a sponsorship for this study. Possible funders and sponsors need convincing arguments on the importance of investing in the project (intervention) at stake. The inexperience of the researcher and supervisors to obtain funding was the main obstacle in this process. Some other reasons were

the track record of the researchers in terms of limited publications in this particular field, and the fact that the research endeavour included information from the social, natural and health sciences. Such a combined approach could have weakened the success of the funding applications. Two questions integral to applying for funds are - "whether the intervention should be done" (cost-benefit analysis) or "which intervention should be chosen" (cost-effectiveness analysis) (Phillips & Sanghvi, 1996:11; Weimer, 1996:43). A person with financial background should have been consulted to assist with these tasks in order to improve the funding application.

### 9.6.3 Methodology

Weaknesses in terms of methodology are described in terms of the specific instruments. In this study the instruments used were not extensively tested, validated and standardised. Most of the methods were qualitative in nature, but some instruments were constructed to quantify some of the findings. These were a hygiene-and-sanitation (HAS) knowledge test, HAS-behavioural scale and HAS-scoring guideline. The scoring guideline was also used as an assessment form for competitions. An activity sheet to identify certain illustrated 'domestic hygiene mistakes' were also designed and used. The instruments were devised from consulted literature (Ahmed *et al*, s.a.; Almedon *et al*, 1997; Billig *et al*, 1999:22; Curtis *et al*, 2000:23). Formally established agreements that define the concepts were used and agreement within the research team and with the study leaders was obtained. Theoretical validity can therefore be claimed. Theoretical validity was seen as consensus within the involved research team regarding the terms used to describe and understand the phenomena at stake (Maxwell, 2002:52).

There are definitely certain limitations in terms of reliability of the findings as well as in the description and measurement of the phenomena (hygiene practices and sanitary conditions) under study. These instruments, however, are considered a valuable contribution of the study to future research. The instruments are easy to understand and to implement and can be used as tools to assess the hygiene and sanitation situation in rural communities. It can also be applied to measure, understand and explain the success or failures of interventions in this regard.

### 9.6.4 Enabling factors

Another gap was the consideration of factors that could have influenced behaviour change – either positively or negatively. It is wrong to automatically put the blame for a failure of a health

education programme on a lack of interest or motivation. People may have the intentions to perform a desired behaviour but still not do so, which might be because of the influence of enabling factors such as time, money and skills. People are also influenced by various significant other people in their social network (parents, spouses, siblings, relatives, friends, employers, religious leaders, traditional healers and health workers) (Hubley, 1988:136). A person may have to balance out conflicting pressures from different people and conform to wishes of those most important to them. In this study these influencing people were the women's husbands or partners. They were not involved in the study but showed great interest. Insight from the field worker and key informant revealed that the men in the community should have been included in the intervention. Perhaps then more significant results would have manifested. I therefore speculate that the hindrance for some of the women in the community laid in this mediating factor, namely that their husbands/partners did not support them in the application of the desired hygiene practices and improvement of the sanitation conditions.

## **9.7 CONCLUSION**

This intervention, even considering the limitations discussed, has shown the potential to positively impact in the lives of people in rural areas by improving hygiene and sanitation practices and conditions. The outcomes of this study were considered small steps in a long journey towards behavioural change, development and improving the nutritional situation on commercial farms. Although we all wanted a more significant improvement in hygiene and sanitation practices on Oranje farm, this research activity still did provide lessons through reflection and analysis, which make it possible to attempt further research. A foundation has been laid and I hope that the next step would be to apply the recommendations from this study to future projects within similar contexts.