

## AN EMPIRICAL INVESTIGATION INTO IN-SERVICE TRAINING AT NORTH WEST PROVINCIAL DEPARTMENT OF AGRICULTURE

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### ABSTRACT

*Farmers' (emerging and commercial) results do not only reflect performance but also depict the quality of learning and teaching that they have received. However, the focus seems to be only on farmers' results, particularly emerging farmers results' (rural areas), without regard to other facets of the Department of Agriculture, Conservation & Environment which have a direct impact on the farmers' results. Amongst others, there are extension officers and in-service trainers who need to be taken into account to ascertain the quality of service that farmers receive. This study focuses on the provision of in-service training through the cascade model of training in the North West Provincial Department of Agriculture, Conservation & Environment (DACE). While their training approaches are varied and enjoyed by most extension officers, there are inconsistencies in terms of the evaluation of the in-service training sessions. The results show, both the in-service trainers and extension officers are satisfied with in-service training in the Provincial Department of Agriculture, Conservation & Environment. However, in-service training in general needs to be reviewed in order to maximize the implementation of effective skills development within of the department.*

**Key words:** Farmers, in-service training, North West Provincial Department of Agriculture, Conservation & Environment (DACE), extension officers, cascade model, skills development.

## 1. INTRODUCTION

Agriculture is a constantly changing field. The economic life of most developing countries is based on agriculture, as it is a viable economic strategy for many rural communities. Skills development through education and training has always been the powerful lever for improving both individual opportunity and institutional competitiveness of institutions worldwide. Consequently, agricultural education and training must also change if it is to remain a vital part of the South African Agriculture.

This study will focus on the North West Provincial Department of Agriculture, Conservation & Environment (DACE). The National Department of Agriculture have a roll-out pilot project on in-service training in various agricultural sectors for the empowerment of the extension officers in line with skills development requirement. The study concentrates on how the evaluation of in-service training can improve the life of the emerging farmers across the province through the cascade model of training.

## 2. PROBLEM STATEMENT

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Too many changes have been attempted on the basis of what looked to be a good strategic and financial argument only to flounder on the rock of cultural resistance. Human dynamics, such as, culture, people and organisational structures are often taken for granted. Employees resist change as the change may have negative consequences for them. Resistance may indicate that workers do not understand the training and how it is going to benefit their output within the organisation.

It is important then to conduct an empirical investigation into in-service training at DACE. It can prompt further investigations to establish underlying causes and identify remedies (Armstrong, 2006:375).

The following research objectives are under investigation:

- To determine whether in-service training failed to address skills development.
- To determine whether trainees are unable to transfer the knowledge, skills and attitudes developed in in-service training.
- To determine whether in-service training failed to serve as a catalyst of agricultural development and growth.

### **3. LITERATURE REVIEW**

A fundamental question in relation to the achievement of the agricultural and rural development goals is the lack of appropriately trained human resources to rehabilitate and modernise the sector (National Department of Agriculture, 2006:13). Skills shortages lead to inefficient farming enterprise operations. There has been a poor alignment of training programmes with social and economic strategies in the past. A major challenge faced by any organisation is to train its employees in such a way that they have the necessary knowledge, skills and attitudes to do their work successfully. This study's context is in the field of in-service training within the agricultural sector. There is some speculation about the in-service training when new technology is implemented for skills development. Questions about the consequences of the new training skills often posed in a much brought manner. For instance: will in-service training improve the skills offered for extension officers and improve farming methods?

Within this context upon which this study will concentrate, in-service training may be defined as “a variety of activities and practices, in which employees become involved in order to broaden their knowledge, improve their skills and evaluate and develop their professional development approach” (Wallace and Green, 2007:588).

#### **3.1 In-service cascading training**

In-service training is any vocational training acquired during employment, and undertaking to engage in such training is usually part of the appointment agreement between employer and employee (Mitton-Kükner, Nelson & Desrochers, 2010). In the current situation in SA education, training is necessary to re-orientate employees to new goals and values, to prepare them to cope with environmental change, to train them in new farm and technology methods, and to provide them with the knowledge and skills to train upcoming farmers. According to Mitton-Kükner *et al.* (2010) the challenge is to provide effective practice-related in-service training that meets the requirement of the new farming and results in improved training and learning in the classroom and field.

Hayes (2000:135) is of the opinion that the cascading model of training uses a “top-down approach” or centre-periphery strategy. Embedded in this strategy is the management of planned change in trainees. In this instance, it is envisaged that extension officers will be able to implement the new farming training in DACE. On the other hand, Evans (1990:110) postulates that the “bottom-up approach” is ideal, as trainees get an opportunity to make inputs as far as the training they receive is concerned, unlike the “top-down approach” where trainees cannot make inputs pertaining to their training. Hayes (2000:137-138) argues that the cascade model of training seems to be preferred by DACE because it is cost effective and uses existing skills development staff as co-trainers. However, using trainers from successive tiers of the cascade has its own drawbacks, such as dilution of training. This occurs as less and less is understood as one goes down the cascade.

The other demerit of this model of training is that concentration of expertise is at most top levels of the cascade, where the knowledgeable personnel at the top tend to use a purely transmissive model of training at all levels. According to Gilpin (1997:185) the cascade model uses participants as both the subjects and agents. The model has most experts at the top, who in turn initiate training to groups of personnel. For the most part, these are senior personnel who in turn have to train other personnel; almost twice the number of the initial group. Each group of trained personnel has to train other people down the cascade. Thus a dilution of information occurs, because of different interpretations and understanding of the information by different individuals at different levels of the cascade.

Bax (2002:167) argues that the following are some of the prevalent problems around the usage of the cascade model:

- Confidence: lack of confidence on the part of extension officers when they have to cascade what they learnt from workshops.
- Knowledge: insufficient knowledge that extension officers have in order to conduct a workshop at sub-district level.
- Power dynamics: when a fellow extension officer is to conduct training, the colleague do not find it useful as he/she is seen as their equal and, therefore, not well qualified or knowledgeable to train them.

However, all is not doom and gloom about the cascade model as there are useful suggestions that can make the cascade model a success. Alder, Slonimsky & Reed (2002:137) are of the opinion that in-service training programmes are appropriate to assist extension officers by improving their conceptual knowledge. This improvement gives extension officer confidence and resources to engage farmers at more challenging levels. Whether it will work with extension officers as adults, is yet to be seen.

#### **4. RESEARCH METHODOLOGY**

The main aim of the research was to establish the level of in-service training within the Provincial Department of Agriculture, Conservation and Environment (DACE). It is postulated that in-service training of the Department of Agriculture Conservation and Environment failed to serve as a catalyst of agricultural development and growth and also in-service training in the agricultural sector fails to address skills development. The research questions addressed various aspects of in-service training of employees which did not lead to the training of farmers in the rural area, due to inadequate skills within the agricultural sector.

The research was conducted with the custodian of extension services within DACE to test the association between extension officers and farmers with an aim to establish the extent to which the in-service training impacts on the agricultural sector. The target group or population of extension officers was forty seven. A purposeful sampling was used, which resulted in forty members of the extension officers that participated in this research project. Semi-structured interviews were used to collect data. The respondents were interviewed by use of an interview schedule. Both qualitative and quantitative data analysis methods were used for data analysis purposes.

Ethical considerations in relation to the confidentiality of the information gathered from the participants were acknowledged. The researcher has gone through the security vetting as per the departmental security policy requirement and also the completion of the governmental information disclosure form, as prescribed under the National Intelligence Agency. The researcher further assured all the participants about the confidentiality of their personal information used for this study.

## **5. DATA DISCUSSION**

The age of respondents play a vital role in providing reliability to the study. In this survey age was grouped in terms of entry level to exist level. However the highest number of respondents was within the age group between 41 and 50 years which constitutes 62.5%. The smallest group is those that are between 20 and 30 years old, which constitute only 12.5%. This can be attributed to the fact that most of the respondents were within the experience period of employment while the minority were at the level of acquiring experience entry of employment.

Out of 40 respondents; 5 (12.5%) were aged 50 years and above; 10 (25.0%) were aged between 20 and 30 years; and 25 (62.5%) were aged between 41 and 50 years. The majority of respondents were aged between 41 and 50 years, implying that the majority of extension officers are aged between 41 and 50 years, which is an average age group within the working class that may have acquired sufficient work experience to understand the role of in-service training and its importance within the agricultural sector and farming communities. Ten (25%) of the respondents were female and 30 (75%) were male. Out of 40 respondents, 10 (25%) were from urban areas while 30 (75%) were from the rural areas.

The minority of respondents who emanated from the urban area did have a slightly negative impact, as the respondents were not fully conversant about agriculture. However the majority of respondents who emanated from rural areas have a credible knowledge about the farming system, which has made it easier for the trainers who were offering the in-service training. Out of 40 respondents 11 (27.5%) had diplomas and 29 (72.5%) had degree qualifications. This indicates that the majority of employees that occupy extension officer positions are highly educated, which will be an advantage to the organisation. (I.e. Extension Officers who are well trained to understand the role of the in-service training and its impact on farming decision). The majority of the degree respondents were able to evaluate in-service training more effectively than the diploma respondents.

The results of the investigation from the extension officers seem to agree that the kind of in-service training that they have undergone addressed the objectives; achieved, training methods, involvement of extension officers during training and also the evaluation of training

offered. The overall results of the survey in response to the questionnaire are discussed below.

### **5.1 To what extent did your training achieve its objectives?**

When the respondents were asked about the impact of their training on extension officers, the in-service trainers believe that the in-service that they had conducted, has had a positive impact on most of the extension officers. This was discovered when the in-service trainers conducted their limited follow up visits to sampled districts. One respondent for example said: “I will only realise the training objectives as I attend to monitor implementation of what they have learned”. This suggests that monitoring and follow-ups are irregular and in-service trainers do not necessarily know if implementation is done or not.

### **5.2 Whether the training satisfied the needs of the extension officers?**

The emerging pattern is that the in-service trainers are to “some extent satisfied” with the in-service training that extension officers receive. However, the in-service trainers are aware that not all extension officers who have attended their in-service training are entirely satisfied with the training they receive. The reason behind this could be attributed to the extension officers, since they come for in-service training without clear objectives in mind. In some cases the in-service trainers do not make the outcomes/objectives of their training clear to the extension officers at the beginning of the in-service training so that both the extension officers and the in-service trainer could indicate at the end of the in-service training which outcomes/objective has been reached.

### **5.3 Whether the extension officers are involved during training?**

All respondents indicated that they are involved throughout the training. The majority of respondents preferred to apply to recognition of prior learning as a basis for them to be active during the in-service training session. More efforts were made to involve the extension officers during in-service training. The popular involvement seems to be group work or some form of cooperative learning and some form of discussion.

### **5.4 What methods of training were used and whether they were effective?**

The training approaches used by the in-service trainers vary from one trainer to the next. However, the approach that was mostly used was the lecturing approach. The respondents find this approach the most effective because they deemed it a “hands-on approach” to training. This entails that the extension officers were involved during in-service training which is more suited to the cascade model of training. Embedded in this strategy is the management of planned change in trainees. In this instance they envisage in extension officers, the ability to implement the new farming training in the Department of Agriculture, Conservation and Environment.

### **5.5 Did the training you received address your objectives?**

The majority (62.5%) of the respondents’ indicated that their training reached its objectives to “some extent”. See Figure 1. This suggests that whilst the in-service trainers have reached their objectives, they have not been entirely successful in this regard as this has only been partially achieved. It was also reported that reaching training objectives were depended on the

grades. One respondent indicated their success rate greater in Practical Training (emerging farmers) than in General Practical Training (commercial farmers).

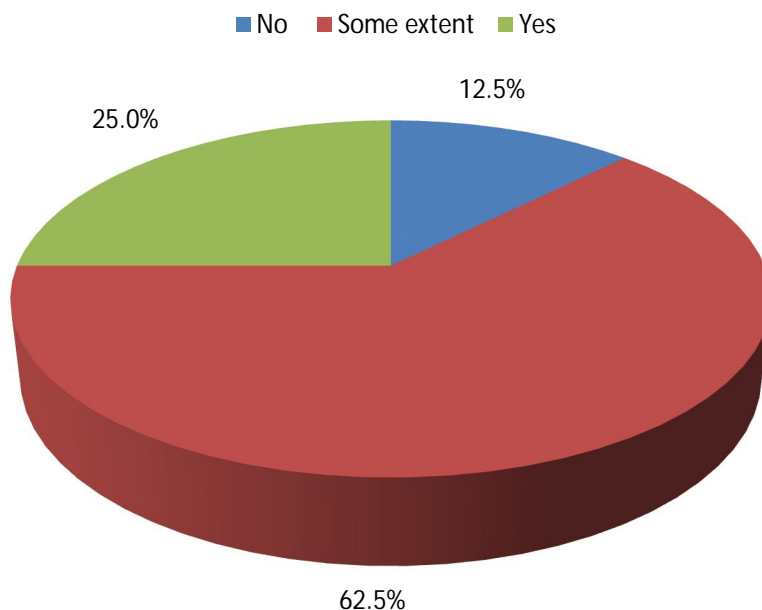


Figure 1: Did the training you received address your objectives?

### 5.6 Responses on issues affecting the evaluation in-service training

A questionnaire was prepared to get responses on issues affecting the evaluation of in-service training. The responses from the questionnaire indicated that the evaluation in-service training does not impact negatively on performance. Whilst extension officers (employees) are generally satisfied with the in-service training that was offered to them within DACE, all is not rosy. The following conclusions highlight problems encountered by extension officers and also suggest reasons why they don't cascade the training that was offered to them:

- Lack of extension officer involvement in planning the evaluation of in-service training sessions and therefore, the in-service training disrupts the service delivery to the community. These extension officers may have an initial negative attitude towards the in-service training, resulting in the cascade training model being adversely affected.
- Insufficient time to conduct in-service training. As a result in-service trainers try to compress as much learning material or topics as possible into one session.
- Many extension officers have to travel for long distances to come to the training centre or venue. Consequently, valuable time is lost on the road. Office time is also impaired due to sessions that are conducted on central places, rather than decentralised venues within the districts.
- Subsequently, cascading fails due to a lack of capacity on the part of extension officers, which is the result of *inter alia*, the rushed in-service training.
- Irregular evaluation of in-service training sessions which varies from questionnaire feedback surveys to verbal feedback and none at all.
- Insufficient follow-ups and monitoring from the in-service trainers.
- Non-participation of departmental senior managers in extension programmes in, in-service training. Senior managers which are not knowledgeable about changes

in the farming systems cannot assure quality, as there will be improper monitoring at the departmental level.

## 6. CONCLUSION AND RECOMMENDATIONS

The research provides evidence that the evaluation in-service training can have a positive impact on the performance of both the employees in the North West Provincial Department of Agriculture, Conservation & Environment (DACE) and also farmers outside of the department. The extension officers/animal health technicians (employees) in the DACE need to do the following to attain maximum success:

- That the department through the skills development unit conducts skills audits to allow effective participation of extension officers within the in-service training programme. Furthermore need analyses of extension officers should be conducted and compiled identifying training gaps of extension officers in line with the skills development requirement.
- That inherent job requirement in-service training be prioritised to address skills required by the organisation, (whether scarce or critical skills) for extension officers within the extension recovery programme.
- That the department develops an annual training calendar to prioritise in-service training programmes, avoiding unplanned sessions of in-service training.
- That the department improves capacity on the part of extension officers in relation to recognition of prior learning when implementing in-service training to all extension officers, enabling trainers to prepare material in line with the experience gathered during their employment history against the theoretical background.
- That the department should aspire for effective and efficient buy-in from departmental Senior Managers (in relation to in-service training offered to extension officers within the department), to assist in completing the programme.

In this study an attempt was made to address quality assurance for in-service trainers. It is remarkable to realise how in-service training is conducted and the insufficient monitoring that is currently done. This study has the potential to lay a solid foundation for in-service training of extension officers and the pivotal role that the in-service trainers have to play in the general provision to the agricultural sector in this country.

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