

Radio and the Pedagogy of Intellectual Engagement among Cattle Farmers

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INTRODUCTION

This paper is based on information collected during the 2001/2002 study and the September 2007 study on the same farmers who participated in 2001/2002. These two studies, conducted in north central Namibia, tried to explore the theoretical and methodological issues about using radio to facilitate learning among cattle farmers. North central Namibia covers an area of 55,000 km² and in addition to accommodating 43% of Namibia's population it accommodates a cattle population of over 1 million.

We all have ideas about how people go about learning new things and how the new experiences influence their thinking and behaviours and enable them to change the world around them. However, we lack knowledge of how effective learning is facilitated and how adults are enabled to take collective action to bring about the desired change in society.

Educators are not the only ones concerned about how learning is facilitated among adults, governments and non-governmental organizations are also concerned. In 1997 the Namibian Ministry of Agriculture decided to intensify its educational programmes for farmers, teaching farmers through radio. At the beginning, this came just as broadcasting messages and later on was improved to teach specific topics of importance to farming activities in the country. In 2000 these radio programmes were evaluated and found to make very little impact on farmers' knowledge, attitudes and practices. As a response, the University of Namibia designed a radio course aimed at engaging cattle farmers into learning and assist them to discover new ways of doing things.

RADIO AS A TOOL TO FACILITATE LEARNING

Educators have been testing and trying out different educational methods that could facilitate learning among adults. Freire and Horton (1989) for instance, have been eloquent on the subject of participative methods, saying that good educational methods enable people to learn and find solutions to their own problems. Since effective learning in the adult education context is measured by putting into practice what has been learned, Fraser and Restrepo-Estrada (1998, p.50) advised that methods that increase participation are very important and that "participation could only be achieved when people become involved in the planning and decision making that affect their lives and putting those decisions into practice".

Fraser and Restrepo-Estrada (1998) further reminds us that for a method to be effective it needs to employ communication methods and allow many people to be exposed to the same content. We are also told that an approach that makes use of mass media communication methods facilitates critical learning that leads to change and development at a large scale and bring about rapid and large-scale behavioural change necessary for social change and sustainable development (Zwierzynski, 2003).

Many studies have been conducted on how radio could encourage learning because it makes information more accessible and exposes many people to the same knowledge and skills at one given time (Dodds, 1972; Fraser and Restrepo-Estrada, 1998). Educators have however recognised that in order to make radio participative it must be coupled with methods that promote interactivity and enable participants to engage in conversation, debate and discussion. As a result, in 2001/2002 the radio course was developed and coupled with facilitated group discussion and print materials.

The course consisted of 12 radio broadcast series; made up of 10 content broadcasts and 2 feedback broadcasts and covered the following topics:

- The importance of cattle in our society
- The role of cattle in building our livelihood

- The breeding stock
- Animal draught power
- Getting the best out of your cattle
- Grazing management
- Basic animal health
- Common diseases in the region
- How to maintain healthy animals
- Cattle marketing

In addition, there were flip chart illustrations and handouts for each content theme. Furthermore, study groups, facilitated by well-trained facilitators selected amongst the study groups, were organised.

The instructions for the 2001/2002 radio course were developed as functional instructions, aimed at teaching cattle farmers successful ways of cattle husbandry and production, and addressed both content as well as the need to develop correct attitudes and practices. The design of the course was aimed at intellectually stimulating participants' thinking and understanding issues around cattle farming.

The development of instructions has utilised an integrated approach to learning which combined the three adult learning theories:

- The behavioural theory which calls for a predetermined content to be imparted to individuals who lack it
- The experiential theory which values informal and incidental learning experiences, and
- The critical theory which values localised learning, discourse and participants' reflection on the relevance of the learning experience to their situations and practice.

By using an integrated learning approach the radio course facilitated learning to affect human abilities that are required to bring about significant change in participants' thinking and perception. Furthermore, the delivery methods sought to prove whether learning new ideas, skills and knowledge through radio could influence attitudes and behaviours of participating farmers and enable them to apply their newly acquired knowledge and skills to real situations.

CATTLE FARMERS AS LEARNERS

In 2001/2002 the radio course was offered to 10 study groups, with 244 cattle farmers, including 87 female farmers, participating. Farmers met in their respective villages to learn about cattle husbandry and discuss better ways of successful and productive farming. By locating educational activities within the residential and working environment of participants, means adults are helped in focusing their attention to the problems at hand, enabling new kinds of understandings and meanings to be discovered. Moreover, localisation supports the mastering of the subject matter, being able to discuss it in detail, apply what has been learned and appreciate its usefulness to one's living conditions.

The 2007 study further found that 5 of the study groups visited still met at their normal venues with the original print materials provided in 2001/2002, even though the Namibia Broadcasting Corporation no longer broadcast the original radio course. Farmers however decided to meet at the time that some farming topics were broadcast, even though according to the groups, 'sometimes farming programmes are replaced with other topics such as HIV/AIDS or small and medium enterprises (SME)'.

The study also found that the number of farmers participating in the study groups in 2007 was reduced to 65 participants. Groups that for instance had 25 participants in 2001/2002 were now only having 15 or 13 participants and groups that had 19 and less have only 10 farmers participating. However, instead of meeting one day a week, farmers were now meeting from two to five days a week. Farmers stated that the reasons why they continue with their "under the tree schools" was because they noted the changes in their farming practices when they tried out what they learned.

PEDAGOGY AND INTELLECTUAL ENGAGEMENT

In his study of creating communities of practice Etienne Wenger (1998, p.45) has concluded that “being alive as human beings means that we are constantly engaged in the pursuit of enterprises of all kinds, from ensuring our physical survival to seeking the most lofty pleasures”. Supporting Wenger’s position Tara Fenwick (2003, p.253) has described “knowing and learning as engaging in changing processes of human activity in a particular community”. And Jocey Quinn (2005, p.4) noted that, “the notion of learning has assumed an important position in discussions about the education of adults by producing forms of social capital, being actively promoted as the key to lifelong learning”.

Learning theorists with a critical dimension theorised learning on the basis of addressing real problems and circumstances that people find themselves in. Such circumstances could be political, social, cultural, economic or race and gender, which need people to be empowered to be able to solve problems facing them. They therefore advocated that the purpose of learning should be to transform individual learners into beings that are capable of changing the political and social conditions that prevent learners from living normal lives and prosper in society (Mezirow, 1991; Horton and Freire, 1989).

The purpose of locating this study within the critical theory is because it is advocating that purposeful learning to address real problems requires dialogue as an important element for intellectual engagement (Newman, 1995; Rafi, 2003). Through dialogue the radio course enabled cattle farmers to be critically engaged in learning better ways of cattle husbandry.

IMPORTANT PEDAGOGICAL ISSUES FOR EDUCATIONAL RADIO DESIGN

While the original radio course produced many learning experiences, this paper will only highlight factors that enabled farmers to learn and think critically about issues of most importance to their farming practice.

Radio Tutor

Radio was used both in the behavioural and cognitive contexts, enabling participants to acquire and process new information. It was seen by participants as a good tool for learning new things and its usage highly appreciated. Eight of the participating groups commented that they have been listening to radio for many years, but that there has never been a radio programme which is more informative and useful than this one.

Radio played a major role in teaching and learning, by providing participants with facts, new information, concepts and enabled them to master the subject content. Using radio as a knowledgeable teacher through which experts provided the correct content to participants proved that a campaign with an educational intent could be carried out successfully without having to have knowledgeable teachers in all places at the same time.

Proof that learning has occurred through radio was determined by the amount of information gained, skills acquired, change in attitudes, thinking and practices observed and how these relate to farmers understanding of issues and the extent to which farmers improved their farming practices. This is in support with the brief that critical theories support the awakening or critical consciousness of people, realising that they have an important role to play in their own development (Rafi, 2003).

Xin and Feenberg (2006, p.4) stated that for online learning the intellectual engagement consists of “elaborating arguments, criticising views, defining terms and applying concepts”. On the other hand critical theorists believe that to be intellectually engaged is to address the relations among education and change and assume that “pedagogical practices are related to social practices” (Popkewitz and Fendler, 1999, p. xiii). Intellectual engagement through radio was also found to consist of criticising views, elaborating arguments and applying what has been learned. This led to a change in knowledge, skills, attitudes, behaviours and enabled farmers to contribute to the intellectual vitality of their communities as it was observed during the 2007 study.

Human Interaction and the Relevance of the Topic

For learning to be successful there must be some human interaction. The radio course was implemented with the knowledge that in order to stimulate the intellectual capacity of learners some ways of facilitating learning are needed. Facilitation was used to connect the content to the learners' needs and to the problems facing them. Stephen Brookfield (1987) is one of the adult educators who value facilitation as an important aspect of adult learning and the design of the radio course heavily drawn on his experiences. Brookfield (1987, p.71) defines facilitation as the way of "helping people to think critically". It enables people to acquire knowledge and skills and lead them to make decisions of applying the new experience to real life. The study has utilized facilitation in the tradition of critical pedagogy and strengthened the human-human interaction, enabling farmers to learn from each other and implement new learning to improve their situations.

The study also found that social interactions are an important element in human learning. Due to the human- human interaction there was always a heated debate during the group discussions. One of the heated debates observed in 2007 was about whether to form a group in the village that could market the skins and hides on behalf of farmers. It was further noted that sessions that addressed relevant issues and topics that concern participants' immediate needs stimulated interesting debates and through these debates participants gained insights, which provided opportunities for deep learning.

Dialogue

The questions at the end of each radio broadcast were designed to stimulate enquiry, conversation and debate among participants on issues around cattle farming. Such debates helped participants to present their own thoughts, views, personal observations and previous experiences about the topic under discussion, thereby assisting participants to engage in knowledge construction. This was found to be an excellent way of enabling farmers to focus and delve deep into the topic.

Thus, intellectually engagement was stimulated through group discussions (dialogue), the process through which people achieve mutual understanding. Xin and Feenberg (2006, p.3) are of the opinion that dialogue assists a great deal in the "pursuit of shared understanding and convergence" of group ideas. In this study dialogue assisted participants to arrive at their own conclusion, working towards a common understanding and deciding which parts of their learning to implement.

This shared understanding greatly contributed to farmers' motivation and interest to put into practice what has been learned. It was also during dialogue that farmers were able to influence each other through deciding and agreeing to put into practice certain learnings. 'Yes, let us all try weeding with animals those who do not have cattle can use donkeys'. This was an agreement made by most farmers after the draught animal power topic and the skill that was implemented by 73% of the participants.

Through dialogue, farmers developed their mental and personal capacities, increased their knowledge and developed the capacity to apply experience to real life situations. Farmers commented that 'just listening to the radio is not the same without discussing issues in the group'. Thus, group discussions enabled farmers to be engaged in discourse with one another, and began to influence each other and brought about a change in already formed beliefs, attitudes and practices. They were further engaged in discourse with the experts through the feedback system. Sharing therefore stimulated further learning, proving that if people are provided with learning opportunities, they find solutions to those problems.

The 2007 study also found that discussion was probably the one learning method that farmers had perfected. One of the study groups observed was discussing the necessity of culling beef cattle during the dry season and sell to the Meat Corporation of Namibia, an issue that was discussed with scepticism by most study groups during in 2001/2002. When asked why a change of mind now, farmers responded that through the study groups they realised that they were not the only one's selling their cattle, but it was a practice throughout the country. That proves that farmers were intellectually engaged because they were interacting with each other around substantive issues of cattle farming that were relevant to their lives.

Reflection and the Print Materials

During this study reflection was encouraged and was found to be very important as it enabled participants to match their cognitive knowledge and skills with that of other participants and thereby resulting in mutual and common understanding of issues around cattle farming.

It was observed during the 2001/2002 study that for reflection to occur the cultural and social context of participants must be honoured and respected. Since farmers were in a familiar environment and facilitated their own learning, with the assistance of print materials, they were able to reflect on what they have been doing wrong and what they did right, as well as how techniques could be applied correctly to their farming situations. During the 2007 study all farmers who were interviewed commented on the fact that their 'eyes were opened by the radio course', but most importantly they appreciated the idea of having a "school" in their villages. Moreover, group facilitators were of the opinion that participants appreciated radio messages and further explanations provided in the handouts because they were able to relate broadcasts to written notes.

During 2001/2002 groups requested that the radio course be repeated and even identified topics that they wanted to study further. They also identified resources that were not available in the villages, those that prevented them from putting into practice what has been learned and requested the Ministry to provide such resources and services.

The Feedback System

Finally, intellectual engagement was manifested in the feedback system. The feedback provided by agricultural experts, responding to questions emanating from the study groups have been especially important in building farmers confidence and motivating their interest for further learning. All the 5 groups visited in 2007 have talked about the importance of the 2001/2002 feedback scheme and how important it was to their learning and building their confidence. Even though in 2007 they also came up with questions for further clarification that were submitted to the extension officer at the nearby agricultural and rural development centre, unfortunately this time feedback has not been forthcoming.

CONCLUSION

Even though in many industrialised societies computers have replaced the small technologies in teaching and educating rural dwellers, in developing countries radio is still a very important tool in delivering education to many people living in remote areas. This radio course was developed with a specific target audience in mind and a predetermined content. It was developed to enable farmers to learn new knowledge and skills and to share that knowledge and skills with each other. The radio course enabled cattle farmers of a shared vision, values and problems to come together to learn and act on their common challenges in order to, as in the words of Michael Newman(1995, p.247), "gain more control over their own lives".

The conclusion is therefore made that if learning is to be intellectual enriching and meaningful to people, three factors are important:

First, participants must be enabled to constantly update their knowledge and skills for the purpose of developing open-minded persons, able to make informed decisions and choices, and capable of finding solutions to problems and sustaining the changed conditions.

Second, participants must be given an opportunity to be involved and contribute to their own learning that addresses specific needs and circumstances in their specific communities. This involvement encourages people to learn, knowing that being knowledgeable enables them to contribute to their own well being.

Third, participants must be given an opportunity to engage in learning that leads to tangible results, and results in noticeable change and improvement in their surroundings.

The study assisted in forming the conclusion that significant learning is brought about by methods that enable large numbers of people in society to participate and to reach a common understanding, agreeing on the course of action to take as a result of their learning.

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