

Distance Learning for Agricultural Development in Southern Africa

Rainer Zachmann¹, Mungile Chikoye², Richard Siaciwena³, Krishna Alluri⁴

¹Consultant and Program Facilitator, Ulm, Germany (zachmann@extension-line.de); ²In-Service Training Trust (ISTT), Lusaka, Zambia (chikoyem@istt.ac.zm);

³Directorate of Distance Education (DDE), University of Zambia, Lusaka, Zambia (rsiaciwena2002@yahoo.co.uk);

⁴Commonwealth of Learning (COL), Vancouver, Canada (kalluri@col.org)

Abstract. In 2001, the Commonwealth of Learning (COL), Vancouver, Canada, and the In-Service Training Trust (ISTT), Lusaka, Zambia, initiated a program for agricultural extension workers in Southern (and Eastern) Africa to develop and deliver distance-learning materials. Participants from Namibia, Tanzania, Uganda, and Zambia produced materials, pre-tested them with prospective learners, improved the materials in a workshop in 2002, and implemented pilot programs in their countries in 2003 and 2004.



Workshop participants learn from small-scale farmers in the shade of a tree

Background. Agricultural knowledge and technologies to reduce poverty, improve food security, and protect natural resources do exist, however often do not reach the ultimate users: the farmers. Distance learning (DL) offers frontline extension workers a chance to keep updated and to transmit relevant information to farmers. In collaboration with ISTT and under the advice of DDE, COL designed a program with the goal "to contribute to sustainable improvement of food security and alleviation of poverty, while protecting resources and environment, through access to knowledge by distance learning". The content was "Agronomic management of cowpea and soybean in Southern and Eastern Africa". Specific objectives of the DL program were to:

- train agricultural researchers, educators, and extension workers from governmental and non-governmental organisations in the production and use of DL materials aimed at frontline extension officers
- produce a set of DL materials on cowpea and soybean as examples
- introduce the materials in selected countries and support their delivery
- verify the relevance of DL for agricultural development

Production of distance learning materials. Late in 2001, COL sponsored a first workshop at ISTT on "Materials development for distance learning programs for agricultural education in Southern Africa". Participants - "national collaborators" - identified opportunities and constraints for the production and utilization of cowpea and soybean. Based on this information, participants developed drafts of DL units. After the workshop, at their home stations, the national collaborators continued with their drafts under virtual guidance of resource persons from the workshop. The purpose of a pre-test in early 2002 was to ensure that the programs addressed the target audience appropriately.

As a follow up to the first workshop and the pre-test, the same partner institutions as in 2001 organised a second workshop on "Development of distance learning programs for agricultural education in Southern Africa" in September 2002. With the lessons learned, participants improved their DL materials. Lectures and exercises on distance learning, writing, editing, information and communication technologies, specifically e-mailing and Internet access, and advanced text processing helped participants to accomplish their assignment. Both workshops included formative and summative evaluations.

A principle in distance learning is to engage prospective learners in the development of DL programs. Already at the first workshop in 2001, during a field visit, participants learned about sources of information for farmers. They experienced that farmers hardly had access to information from outside their community. Participants concluded that distance learning would help extension personnel in providing information to farmers. During the second workshop, participants interviewed frontline extension officers. The extension officers see in distance learning

a possibility to upgrade their positions, while the objectives of our DL program are directed towards food security. We will have to consider both interests.

Achievements. Over some additional weeks, the resource persons, in e-mail communication with the authors, revised all units. By November 2002, final copies of the following documents were in the hands of all collaborators (MS-Word):

	Pages	KB
Program introduction	7	206
Unit 1 Importance of cowpeas and soybeans	8	27
Unit 2 Morphology and physiology of cowpeas and soybeans	10	*961
Unit 3 Climate and soil factors for cowpea and soybean production	8	27
Unit 4 Land preparation for cowpea and soybean production	7	24
Unit 5 Planting of cowpeas and soybeans	6	*751
Unit 6 Soil and fertility management for cowpea and soybean production	11	40
Unit 7 Weed management in cowpeas and soybeans	8	28
Unit 8 Disease and insect pest management in cowpeas and soybeans	10	34
Unit 9 Pre- and postharvest handling of cowpeas and soybeans	10	34
Unit 10 Marketing of cowpeas and soybeans	11	38
Unit 11 Cowpeas and soybeans in human nutrition	12	36
Unit 12 Cowpea and soybean recipes	13	30
Unit 13 Financing in cowpea and soybean production	10	30

* Including illustrations

Between May 2003 and June 2004, the collaborating institutions conducted a pilot implementation of the DL program:

- University of Namibia, Oshakati, Namibia
- Ministry of Agriculture Training Institute Ukiriguru, Mwanza, Tanzania
- Kulika Charitable Trust, Kampala, Uganda
- Zambia College of Agriculture, Monze, Zambia

The pilot implementation allowed several conclusions with respect to relevance of distance learning (collaborators in Namibia and Zambia intend to integrate DL), challenges in the use of electronic technologies, advantages of open and distance learning, and financial management of DL programs.

More detailed information see: Zachmann, R.; Chikoye, M.; Siaciwena, R.; Alluri, K. 2004. Development of distance learning programs for agricultural education in Southern Africa. Paper submitted to the Third Pan-Commonwealth Forum on Open Learning, 4 - 8 July 2004, Dunedin, New Zealand. 11 pages.

Workshop participants design DL materials

