46229

ECONOMIC COMMISSION FOR AFRICA

ECA/KAF   Joint Workshop on the
Problems of the Effective Use
of Radio Forums/Clubs in Rural
Africa

TRAINING OF STAFF BY DISTANT EDUCATION

M77-1985

1. Introduction

To make the best use of Radio Forum Clubs we need first to have a competent staff. This means the staff in the centre but also fieldstaff that is discussion leaders, have to be trained. Since we try to educate people up-country by Distant Education methods — in this case radio combined with discussion groups — we can analyse the question if it is possible to train the necessary staff by D.E. methods. In most cases the training of staff is done by traditional face-to-face teaching. But is it also possible to develop a general and regional strategy on a similar philosophy for this continent? If we can agree on a basic philosophy, is it then possible to combine efforts and try to use the same curriculum and strategy in a number of African countries? I want to present some thoughts about this item.
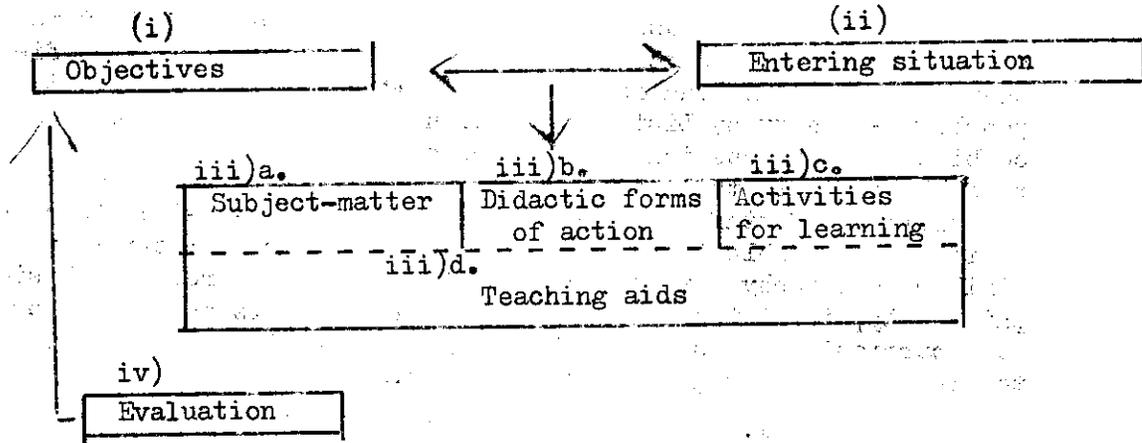
First of all, I should like to develop a theory of education combined with practical ideas based on this theory.

2. Model of "Didactical Analysis"

The main questions on curriculum development, preparation of lessons and courses are:

i) What do I want to achieve with my education? (objectives)

ii) Where am I to start (Entering situation)

iii) How can I teach?

    a. How do I have to choose and to arrange the subject-matter (subject-matter of teaching)

    b. Which didactic forms of action (ways of teaching) (Didactic Forms of Action)

    c. What kind of learning activities have to be executed by the students (activities for learning).

    d. What kind of teaching-and learning aids I have to use (Teaching aids and Media).

iv) What are the results of my education? (Evaluation).

Model

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        (i)                                    (ii)
┌──────────────────┐    ┌─ ─ ─ ─ ─ ─ ─►  ┌──────────────────────┐
│ Objectives       │    ◄─ ─ ─ ─ ─ ─ ─   │ Entering situation   │
└──────────────────┘                     └──────────────────────┘
        ▲                      │
       /│\                     ▼
      / │ \   iii)a.         iii)b.            iii)c.
        │   ┌─────────────┬──────────────┬────────────────┐
        │   │ Subject-matter│ Didactic forms│ Activities    │
        │   │             │  of action   │ for learning   │
        │   └ ─ ─ ─ ─ ─ ─iii)d.─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
        │   │              Teaching aids                  │
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  iv)   │
   ┌────┴─────────────┐
   │ Evaluation       │
   └──────────────────┘
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Again and again we have to ask ourselves about objectives, entering situation, content and organisation of teaching-learning situations and the evaluation of results. Important is that the model Didactical Analysis offers a structure of thinking for all educational and training work. As it was said before, this scheme can be used also for the development of a curriculum and for the preparation of one lesson.

3. Development of Curriculum based on "Didactical Analysis"

Our objective is to find out if we can use D.E. Methods for staff training. This means that our premise is that of point d. Teaching Aids in the Model Didactical Analysis is fixed. To define it in more practical details we make a choice among the many D.E. strategies: a course for adult training, based on a Radio course combined with written material. For the radio course we can also choose the preparation of tapes, to be used during a residential course. In this way we combine the spoken and written languages for the training of staff.

3.1. Objectives

The problem of objectives is a very complex problem. We face the following problems:

a. **Problems of formulating:** We can do that in general terms, that is to say:"We want our staff to train farmers to develop a better way of life". But we also can do it in more specific terms: "Our aim is that the staff members train farmers to free cows from ticks".

In my opinion the general formulation can be helpful to identify specific aims and goals.

b. Problems of inventorization: Here we try to list educational objectives. One has to decide which kind of changes in attitudes and behaviour are desir.ble, what knowledge is needed, etc... After listing all objectives, one has to make a choice.

c. Problems of classification: One has also to develop a classification scheme. The chosen objectives have to be classified in groups following the personality aspects with which they are related. There is a diversity of psychological aspects. Some of the objectives are related to memory, others are related to the development of thinking; again in others one wants to change attitudes.

d. Problems of Evaluation: Which we can summarize in the question: are the chosen objectives still correct? The crucial problem is that in a changing society a constant revision of educational objectives is a necessity.

After this small part of theory on educational objectives I should like to go to the practical side.

In Cairo 1975, there has been a conference of the Association of Faculties of Agriculture in Africa. Mr. L.S. Cobley presented a paper on the topic: The required qualities of teachers in agriculture at all levels. Because of the fact that in my opinion the work of our staff, especially the extension staff or field staff, is related to the teacher in agriculture on the simplest level, I have the impression that we can analyse the formulation and inventorization of the objectives Mr. Cobley stated at the conference. The objectives are:

    i) A thorough mastery of subject-matter

    ii) Knowledge of the relation between the special subject with the total curriculum

    iii) Awareness of objectives of his teaching,related to the needs of the students

    iv) A knowledge of Educational Technology: the use of teaching aids.

    v) Personality aspects and qualities as patience, understanding and humility

    vi) Enthusiasm

    vii) A knowledge and experience in techniques of group communication

    viii) Job satisfaction.

I suppose it is not my task to criticize the above mentioned objective. It is an example. But I should like to ask you to analyse the objectives critically and to formulate objectives for training the staff of the radio clubs.

3.2. Entering situation

The entering situation is the total of personal, social, educational and situational data, which may be of importance in respect with the realization of educational objectives.

Education and training have to adapt themselves to the **world of existence** and experience of the students.

But not only the students are important in relation to the entering situation, but also the lecturers and several situational data are important. This means that we have three categories of the entering situation:

i) the students: Education, level of knowledge, intelligence, interest, mastery of language, motivation, self-reliance, creativity, physical condition, etc.
We need to know something of our students. Therefore I should like to ask you the following question: "How can we describe our students, e.g. the staff members who need training"?

ii) the lecturers: Because of the fact that we do not use face-to-face teaching in distant educational methods (correspondence education and tapes) we need to know the special problems of this method.
Question: Can you list special problems facing the students by using Distant Education? How can we solve these problems?

iii) Situational data: Here we list for example the following data: time available for study, social and cultural circumstances.
Question: Can you list some relevant data in connection with the training of staff?

3.3. Subject-matter

Two criteria are very important:

A. Choice of subject-matter

B. Arrangement of subject-matter.

A. Choice of subject-matter

The criteria for the choice of the subject-matter are based on the Model Didactical Analysis.

i) <u>A purposeful choice</u>: The most used and simplest way in the search for criteria for choice of subject-matter is to list a number of demands. One has then to choose these criteria which guarantee the realization of the objectives.

ii) <u>A choice determinated from the Entering situation</u>:

Here we try to adapt the subject-matter to the level of education of the students.

iii) <u>Choice from the scientific structures of the subject</u>:

Each scientific subject has its own structure and characteristics The structure of mathematics and sociology for example are quite different and this influences the teaching methodology. With the choice of subject-matter we have to take that structure into account.

iv) <u>A choice from the angle of cultural-dynamical determination and from the social usefulness</u>

With the cultural-dynamical determination we mean that the subject-matter is chosen out of the available cultural goods, but also with a view on the needed future changes. Another principle is that the content of the subject-matter has to have a practical social value. This means that the subject-matter makes it possible for students who have finished the course to do their jobs in the society. After this theoretical information I should like to give again a practical example and to invite you to give your opinion. Prof. Osman (Cairo Conference 1975) stated that agricultural teachers need pedagogical training in a number of disciplines, including

a. philosophy of Education

b. psychology

c. rural sociology

d. construction of teaching programmes

e. teaching methodology

f. the use of audio-visual aids.

My questions to you are:

    i) Do you agree that our staff member also need a pedagogical
       training?

   ii) And if you agree with that, what is your opinion about
       the topics Prof. Osman stated for a curriculum: Which
       topics are not relevant and which have to be included?

B. <u>Arrangement of subject-matter</u>

We can distinguish two main streams of arrangement of
subject-matter:

  i) <u>An arrangement in subjects</u>

    The above mentioned needs for agricultural teachers
    by Prof. Osman is in accordance with this principle:
    Philosophy, psychology, sociology etc. It is, however,
    also possible to follow:

  ii) <u>An arrangement in projects</u>

    One can choose a number of topics and relate these topics
    to philosophical, sociological and educational aspects
    of the particular topic. For the training of the staff
    members, we have to decide in advance which kind of
    arrangement we prefer. Therefore I should like to give
    you the next problem: Which arrangement do you think
    give the best results in training staff member? We have
    to relate our answer with the chosen media and the objectives.

3.4. <u>Didactic form of action</u>

In the classroom situation we can distinguish a number of teaching
forms: lectures, demonstrating, discussion techniques, etc. Is
it possible to combine some forms for our students since we have
decided to use Distant Education methods? I think we can !
Instead of the lecture we make use of a correspondence course .
The spoken language is replaced by the written one. But by using
tapes in training centres we can also make use of some of the
lectures by oral teaching.

Demonstrating can be done by including photographs, designs,
graphs, etc... in the correspondence lessons. On the tapes we can
record interviews, discussions and demonstration-lessons.

The discussion-techniques are somewhat more difficult to handle in using Distant Education techniques. Most of the time, however, we introduce one or two residential courses, where of course discussions can be held. The principle of discussions is the oral communication between persons. In distant education the two-way-communication is very important. Therefore such lesson contains a number of questions for the student to answer. The teacher has to send the answers after marking the scripts and give an answer to the student. Instead of an oral communication one establishes a written communication. In the correspondence lessons the students are given assignments, the same as in school - education.

The student can be asked to write an essay, to fulfil research assignments, etc..

In general I suppose that more or less the same didactic forms of action are used in one chosen Distant Education method, in comparison with classroom teaching.

Question: What kind of advantages/disadvantages has the correspondence lesson in comparison with a face-to-face lesson?

3.5. Activities for learning

By activities for learning we mean behaviour of the students in relation to the learning assignments, as far as this behaviour is directed to reach the planned objectives.

In all Distant Education courses the activity, self-creativity and responsibility of the student are stimulated. The student has to read or listen to the lessons. He is many times asked to criticize the lessons, or to give suggestions to improve lessons. This stimulates his critical thinking capacity. All kind of assignments are given to students, which they have to fulfil independently. The student has many questions to answer. Part of these questions are self-check tests. Another part he has to reply upon in writing and to send to his tutor. This is going to establish a "dialogue in writing" between the student and his tutor.

But also many other assignments are given to students, like research assignments, the preparation of drawings and designs, etc. From the psychology of learning we know the principles of the learning of concepts, principles, skills, problem solving etc. Most important is the idea of problem solving in modern education. Distant Education is using this method constantly.

3.6. Teaching Aids

We have accepted as a premise to use Distant Education for the training of staff members. After the former part I should like to ask you to list advantages and disadvantages of using this methodology. We can use these data for our discussions.

3.7. Evaluation

We can describe evaluation as the review of the value of the didactical action. In general we can distinguish two forms of evaluation:

    a. Product-Evaluation: one is measuring the results of the teaching-learning process by evaluating whether the objectives have been reached.

    b. Process-Evaluation: This is the evaluation of the teaching-learning process itself, that is, a critical review of the curriculum, the media the learning situation.

It is of vital importance to include evaluation schemes in distant education systems from the very beginning.

If we evaluate this paper it should be an advantage to use the data and to use these for the last question:

Can we develop a plan of operations to use Distant Education in the training of staff?