I have been asked to speak about extension research policy and to focus on the manner and extent to which extension research should be included in a curriculum for extension education. The intention is that I will first give a general discussion of this topic based on my ten years as head of a department of extension education after which Röling will present some of our ideas on problem solving research based on a research project in which he has been involved for the past two years.

In curriculum planning, we start with an analysis of the jobs our graduates are likely expected to take. We try to determine what capabilities they should have in order to fulfill these jobs properly. One finds university graduates, who studied extension education, in three kinds of jobs:

1. Extension officers and administrators of extension organizations. Perhaps these two positions should be clearly distinguished, but at present this is not done at our university.

2. Specialists in extension methods, who can give preservice or inservice training in extension methods and who can advise on the methods to be used in an extension program.

3. Extension research workers, social scientists specialised on extension problems.
Let us look at the curriculum requirements for each type of job in turn, starting with the extension officers. They should, first of all, know what to teach. They need a thorough training in plant pathology, farm management or some suchlike subjects. Only in the second place do they, to my opinion, need a training in extension education. It is hard to say what should be included in such a small extension research project for three reasons:

a. A basic objective of our extension training is to change the student from a message orientation to a client orientation. We believe that it is essential that the extension officers start with the felt need of the clients and with their view of the problem. This cannot be taught through books or lectures. A little can be done through laboratory training in discussion techniques, but interviewing farmers has often quite an impact on the students attitudes. My impression is that the farmers are more willing to discuss their views with a student who comes to learn from them than with an extension officer of whom they expect that he comes to teach.

b. An extension officer will have to cooperate with the extension research workers. He will have to read their reports and sociological studies of their clients. I believe that he will read these reports more critically if he has done some research himself. He will ask them to do research for sound program planning and for evaluation. Cooperation in research planning and interpretation will be more effective if the extension officer has some basic understanding of social research, an understanding which he can gain in his own research project.
c. At this moment the Dutch extension officers do very little extension research themselves, but one wonders whether their program planning and evaluation would not improve a good deal if they did some. Program planning is now based on a lot of statistical and farm management data on farms and hardly any information on the farmers, their knowledge and attitudes, their goals and plans for the future. A lot of people say that it is useful to evaluate an extension program, but very few do it. Should the normal extension officer have some training in research methods in order to do some of this research himself?

In our Department there is no course in social science research methods. These courses are taught by capable people in the sociology departments, but few students who plan to become extension officers take these courses. They usually read a book on this subject and discuss their project with our staff. We do not have time to teach these courses ourselves and probably we would get difficulties with the sociology departments if we enter their field. Is this the right solution?

There are plans at our university to switch from a 5 1/2 year curriculum to a four year one. It is doubtful whether such a short curriculun will allow sufficient time for the students, who plan to become extension officers, to do any extension research. Even in the present set-up some of our students only take courses and laboratory training, but don't get any experience in extension research.

2. Let us now turn to the specialist in extension methods. In educating him, we give considerable time to laboratory training in different extension methods,
especially dialogue and group discussion. Extension officers experience this kind of training as quite helpful. In addition most of them also get some experience in extension research. I expect that the interest among these students for research experience will increase in the future, because the work of Röling in Kenya shows that one can play a very useful role at the borderline between a specialist in extension methods and an extension research worker. In the past we have mainly worked with conclusion oriented research, for instance most of the diffusion research. This research has been helpful to understand how society is organized and why. However, this research has been only of limited help in attempts to change society. A typical illustration of most past research is that there are about 300 studies in which the adoption index has been correlated with the educational level of the farmer or other client, but as far as I know only two studies in which the effect of the educational level of the extension officer has been studied. This last kind of research might be more useful, because it is easier for an extension administrator to change the educational level of his own staff than to change the educational level of the farmers. What we need, in our opinion, is decision oriented research, which provides the extension officer with the information he needs to make sound decisions. This requires a close cooperation between the research worker and the extension officer in order to analyse which decisions have to be taken, among which alternatives we can choose to solve the problems of the extension officer and what are the consequences of each alternative. The assumption here is that extension officers are willing to make their decisions as systematically as possible and to be explicit on the political factors and values in their decision making. I will not
go more deeply in the nature of this problem solving or decision oriented research, because Röling can do this better.

I believe that this kind of research can be of much help in improving the program planning of our extension service, but it might require that the extension officers themselves are trained in this way of thinking.

3. And that brings us to our third category: the extension research worker. People who plan to make a career as full-time extension research workers usually have a social science background. They will have done their courses in research methods in a department of sociology, psychology or andragology, but you cannot become a good research worker only by following courses and reading books on research methods. In addition, an apprenticeship is necessary, that is, doing research under the guidance of a more experienced research worker. Our problem is at present that the number of students interested in extension education is increasing so rapidly, that nearly all our time goes into teaching and the work in several committees. I think that, in a well organized department of extension education, the senior staff should have about a third of their time to do research in which some junior staff members can participate fulltime. We have not yet been very effective in our communication with the university administration to convince them of this point of view. I would be glad to hear from you how we can become more effective communicators in this important area.

University graduate should not know a lot but be able to find new solutions for problems. Question for discussion Question for examination, evaluation criteria

Evaluation courses: learn more from discussion than from lecturing, organization better than diffusion.