Methodology for conducting farmer training

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Abstract.
The article attempts to design a methodology for training professional farmers in smart agriculture as an overview and digital tools. The set of the study is to outline and analyze the new techniques of agricultural process management. The findings of the study and research can help create a methodology for training farmers in the country and the country on digitization and smart agriculture.

Keywords:
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The choice of the right method depends on various factors, such as: the purpose of the training; the trainer; Learners; the level of education; age and experience; socio-cultural environment; the training environment; Subject; time and material factors; the preparation time for the training; the length of the course; the beginning of the course; the time; the training base, etc.

The choice of learning content should be linked to a specific approach to learning - what, when and how to teach. The chosen approach should then take into account the objective and subjective factors influencing the learning process. Objective factors are the duration, time, place, basis for conducting the training, and subjective ones relate to the qualities, needs, abilities, interests, learning and life experiences of the trainer and learners. The learning approach must also take into account the links between different learning disciplines and the dominant learning styles of learners. A component of the approach is the negotiation between the trainer and learners of the parameters of their participation in decision-making related to learning activity.

The place and role of the trainer is of particular importance in all types of training. Some of the most important roles he is expected to perform are:

- Understand the training needs of the target group.
- Develop the framework of the course content, in accordance with the requirements of the trainees.
- Preparation of the content material.
- Knowledge of the principles and methods of appropriate training.
- Organization of the training environment.
- Conduct of training.
- Evaluation of the impact of training.
- Implementation of all necessary follow-up.

Training course

As stated earlier, the content of the course and its sequence must be outlined and clear. In terms of subject, within the scope of the whole course,

The trainer should use different types of learning materials and visual forms, depending on his experience,
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expertise of the matter, as well as through communication with fellow professionals. Once the subject matter materials have been created, the next step to realize the content part of the course is to determine the sequence of modules during the training.

When determining the sequence of the course, the following should be taken into account:

Easier materials should be placed at the beginning of the course.

General concepts and technical terms that have application during the course should be introduced at the beginning.

The material most likely or most frequently to be used must be properly positioned in the course content.

The material that is more difficult, as well as those modules that are not directly related or rare, should not be "rushed" in the course of training.

Complex or related knowledge should be applied later in the course sequence. These are just some of the guiding principles for ensuring the design of training.

Training approach

The use of the right training approach is a condition and a prerequisite for the effectiveness of the training programme carried out. The choice and use of the appropriate methods is even more crucial here, because the nature of the activity requires that the training be not only educational, but also as stimulating. The use of one effective method, or a combination of several, encourages greater interaction between the trainer and the learner. Mainly according to the way the methods are applied, They are classified into traditional methods (requiring the dominance of the trainer – mainly lecturing), active (requiring active independent work of learners) and interactive (requiring active interaction between trainer and learners, group work, discussions, work/interaction of learners with modern information technologies, workshops, etc.).

Methods and techniques should be differentiated according to the purposes for which they are applied and the time they take. From this heading the same activity or action can be defined as a method or as a technique. When we talk about a
method, we mean a course of action or activity to achieve a certain goal that requires more time, as opposed to a technique that takes up a small part of the time of the occupation. The technique can be an independent activity - various dating techniques are known to "break the ice", to work together the group, to summarize ("Three important things I learned today"). The technique can also be part of a method - applying brainstorming as a starting element of the panel discussion method or the storyline method, etc. None of the above types of methods is entirely suitable or effective enough for every activity and training. Each species has its advantages and disadvantages. It is necessary to make the right selection carefully, taking into account a number of factors and choosing the most suitable ones. In most cases, in the process of training, a combination of methods should be used.

The choice may depend on the following:

Learners have different backgrounds, different knowledge and experiences, which have a significant impact on the learning process.

Learners learn most in a given situation that encourages their participation in the learning process.

One approach alone is not effective enough to ensure maximum training impact.

Effective use of a particular method depends on the experience and skill of the trainer.

The trainer, no matter how good a professional he is, should be aware that the effectiveness of the training depends on the continuous growth of the knowledge and skills of the learners acquired during the training. For this, he must seek the active participation of the trainees in the learning process. Only then does the learning process actually start. This process leads to an increase in the qualification of the trainer, and this improvement will continue throughout his professional career as a trainer.

Ensure the effectiveness of training during the course

Much of the success of a training course depends on the actions of the trainer, who must present the defined topics and his ability to use different means of presentation. There are some measures that can increase the effectiveness of the
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trainer's work. Some of the more important ones are:

- The right choice of content material that is related to the topic of the course.
- A thorough review of the literature, with a view to preserving the specificity of the taught matter.
- Preparation for teaching, which should include: title of the course; the title of the topic; time to take place; Purposes; necessary teaching materials/audiovisual means; training methods; main content of the lesson; final remark; a topic of discussion; type of practical task, to exercise the knowledge acquired.
- The presentation of the topic, which is as important as the preparation. Pay attention to: clear introduction to the topic; equal weight of the content of the topic compared to the topic of the previous lesson; emphasizing the importance of the topic and purpose of teaching; creating motivation to learn; a clear summary, together with an overview of the main points; equal weight of the content of the topic compared to that of the next lesson.

Strengthening learning outcomes after training

It is essential to maintain the benefits of a training programme. It can be implemented through the following activities:

- Feedback from the activities of the trainees and the progress in knowledge and skills obtained during the current training.
- Hold occasional meetings and workshops to exchange experiences in places where former learners have the opportunity to participate.

Feedback and its importance and application

In order to ensure the best use of the feedback from the information collected from learners, both during the training and after the completion of the training, it is desirable to incorporate the lessons learned into future training programmes.

Preparation of a list of necessary elements for organizing a successful training program

In order to ensure that the training programme is organised successfully, a checklist must be made against which it can be judged whether the training is going in the desired
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direction. This can be carried out according to the following criteria:

- Outcome versus objectives: whether the preparation meets the objectives and the action plan.
- Selection of participants: whether the trainees in the course are selected, in accordance with the requirements and procedures set.
- Content: whether the content of the training course is fully covered.
- Choosing a trainer: whether he is correctly chosen, judging by his actions and competence.
- Selection of training methods: whether appropriate training methods have been selected and used to achieve the effectiveness and effectiveness of the training.
- Organisation management: whether the training programme is organised appropriately, which is visible from the reactions of the trainees.
- Evaluation: whether the training programme has been assessed during its conduct and whether subsequent evaluation is possible.
- Feedback: whether there was an opportunity for feedback by seeking opinions from the trainees.
- Follow-up: whether sufficient scope and measures were provided to ensure that appropriate follow-up was taken after the training. These can take the form of visits to the training manager in a real environment to see if the trainees apply the knowledge and skills acquired through the training.

Necessary steps to conduct training

The steps that are implemented to conduct the training should be purposefully planned and consistently logical. Some of the most important steps are:

1. Preparation of the trainer
   - He must be well versed in the objectives and approach of training and well professionally prepared to be effective. In addition, he should be well acquainted with the level of the selected trainees in terms of their socio-economic situation, their level of education, previous training and their experience in the field of the envisaged training.
2. Preparation of learners
   - Prospective learners should be mentally prepared to attend the training for which they have been selected. They

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must be informed about the importance and topic of the training, the training schedule, the place, the learning process, and have the right motivation for it.

Final version of training design
The design/design of the training must be finally completed before the start of the training. It must contain:
- The specific objective of the training.
- The content of the course.
- An explicitly structured scheme of using the training methods, according to the whole course and each module in particular.
- Well-prepared and printed training materials for each module.
- Adequately selected training resources and equipment to be used during training.

Follow-up The follow-up has a very special role in the fruitful activity of training. Omitting the follow-up actions by which new knowledge is integrated into its application in practice is the main reason that makes learners quickly forget new knowledge and skills.

TRAINING METHODS
Meaningful accents
- Types of training
- On-the-job training - nine training requirements
- Selection of an appropriate method of conducting training, depending on specific training
- Putting into effect the chosen method of conducting training
- Preparation and preparation of an assessment for training - incoming assessment, ongoing assessment, outgoing assessment (subjective and objective)

Learning content
Meaning
The word method comes from the Greek language and means path, way of research, training. The essence of the method of education can be revealed on the basis of the analysis of the learning process. In general, the methods of training can be defined as ways of joint activity of the trainer and the trainees through which pedagogically adapted social experience is mastered. The use of appropriate training methods is a condition and a prerequisite for the
effectiveness of carrying out a training programme. The choice and use of the right methods is crucial, as training must not only be educational, but equally stimulating.

The use of an effective method or combination of methods encourages better interaction between the trainer and the learners and thus creates the experience necessary for the usefulness of the activity.

Species

The main andragogical forms include lecture, seminar work, academic work, practical assignment, consultation, independent study, colloquium, theoretical-practical conference. Temporary activity, excursion, laboratory classes, etc. can also be used. Some of them are used in secondary school activities, while others are used in lecture and distance practices in higher schools. In addition, they can also be applied various specific forms and methods of education adequate to the characteristics of adult learners, to the objectives and objectives, to the organisation and implementation of the adult learning process. In didactic literature there is an increasingly clear distinction in the concepts of 'form of training' and 'method of training'. The organisational form is the structural framework where different methods are applied. (Adult Education and Training 2003)

Depending on the specifics, a variety of training methods are applied in each of these forms. Each method has its own advantages and disadvantages. In this sense, it is necessary to make a carefully appropriate selection, taking into account a number of factors from the learning environment. Each form can be used more effectively if the trainer is well versed in the respective application and its characteristics. Here is a brief description of the above-mentioned forms:

Lecture

Traditionally, this method has been adopted as the most widely used form of communication between the trainer and the trainees. It is usually defined as a systematic, consistent, oral-speech statement of a particular topic that contains information new to the audience. It is also relatively easy to plan and implement. The extent to which the lecture can be effective depends on the quality of the curriculum and the
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effectiveness of the presentation. However, success in using this method depends to a large extent on the level of understanding of the trainees and their willingness to study the subject concerned. The use of this method is limited by the monotonous thinking it induces. Also, there is limited scope for essential interaction between the trainer and the learners. To overcome these limitations, it is recommended that the trainer complement the lecture with the use of appropriate teaching aids. The assessment of the quality and content of the lecture method is made in terms of the way it is organized, presented, supplemented with other methods, and whether the trainees have reached the expected level.

Requirements for an effective lecture
- Clear setting of the objectives of the lecture.
- Introduction into the subject in an appropriate way.
- Adaptation to the needs and interests of the group.
- Introducing innovations in the approach and presenting the main topic.
- Logical sequence of sections and subsections in teaching.
- A convincing conclusion.
- Teaching directly and "live".
- Interaction with the trainees during the lecture – asking questions.
- Engage all learners, not just the active.
- Ensuring gender equality.
- Confidence that everyone understands the message the trainer is teaching – pay special attention to slower learners.
- Use of body language.
- Use of attractive gestures.

The most important is the ability to speak, which plays an essential role in the qualitative presentation of the lecture. There are some factors that can increase the quality of the lecture. They are: use of appropriate teaching aids to maintain the interest of the trainees; tactful handling of questions so as to avoid unpleasant situations; the proper classification of the issues raised by the trainees; effective organization of the discussion; the adequate provision of information notes and reference materials.

To ensure consistent practice of knowledge so that
everyone can understand and practice independently if necessary, and then together with other learners. The curriculum that applies to participants must be actually applicable to them.

   To provide sufficient time and necessary resources (such as the trainer's knowledge and experience) so that participants can turn the training into a truly life experience for themselves.

   Prevent action by participants and their organization resulting from a lack of knowledge and skills that can lead to injury or technological problems.

   To make the learning process conscious for participants so that they know how to deal with new situations that arise during learning.

   Demonstrate ideas and methods beyond those already available and used within the organization.

   Provide various possibilities experimentation and as well as provide feedback of results.

   To enable course participants to join groups outside the organization, especially professional and organizational groups, to encourage the continuation of the exchange of ideas and the development of high standards in the profession.

   To provide opportunities for repetition, for rethinking the workflow as a whole, for priority analysis and time allocation, and how the work fits into the life pattern of participants.

   Provide opportunities for intense experience through consistent application of learning knowledge.

**Conclusion**

In the near future, modern farmers will actively use a wide range of technologies, including remote sensing and satellite imagery, precision agriculture, data analytics and artificial intelligence, robotics and automation. Today's digitization of agriculture has the potential to revolutionize the sector, and as the technology continues to evolve, digital farms will be able to reap even greater benefits from it.

**References:**

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