

## Teaching in Field Settings

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ECHO Summary of MEAS Technical Note:  
*Teaching in Field Settings and Laboratories*

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### Introduction

The use of instruction in field settings has been a major part of both youth and adult education programs. Taking farmers to visit a successful farm, agriculture-related business or development project can provide a rich and motivational learning experience (Fig. 1). However, because of limited funding, time constraints, and increased liability concerns many educational programs do not include such trips. In spite of these concerns, carefully planned field visits can be an important way for agriculture extension workers to share new knowledge with farmers and can be a vital part of an agricultural training program.



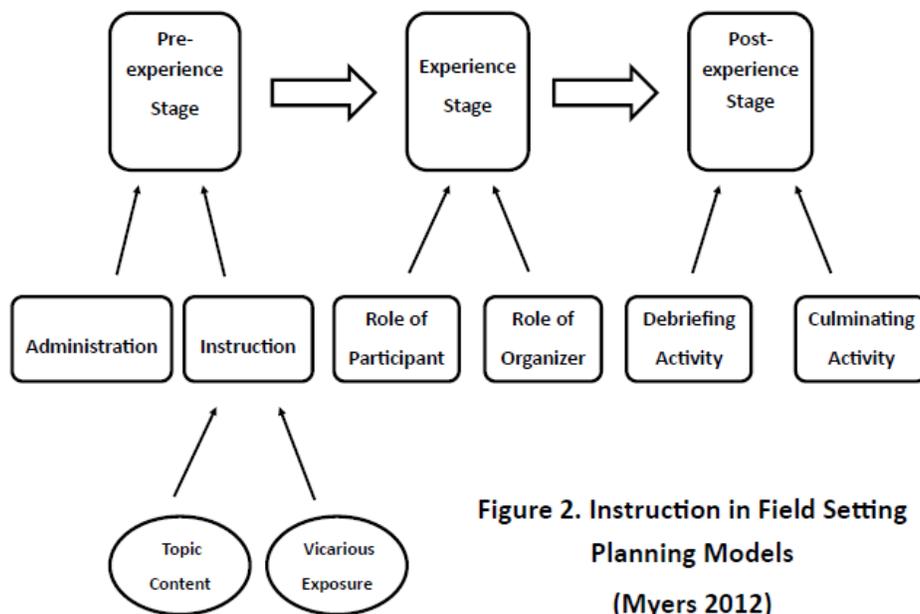
**Figure 1.** *Haitian farmers interested in starting their own woodlots visit an actively managed one with a local community development worker (Source Brian Flanagan).*

Field-based teaching provides first-hand experience about the subject matter being discussed. An on-site encounter allows farmers to observe innovations in practice, discuss them, and ask questions. Farmers exposed to new ideas will be much more likely to understand and apply the information if they can actually see how the various practices have been implemented in the field. By seeing a new crop variety or production technique with their own eyes, they are also better equipped to adapt a particular practice to suit their own needs and conditions.

Instruction during a field visit should be based around defined educational objectives. The experience should be designed to help participants make connections between the field-based instruction event and concepts they are learning through more classroom-oriented instruction. Science education research has shown that well-planned field experiences significantly increase the level of factual knowledge and conceptual understanding gained by participants. This document addresses three stages of creating successful instruction in field settings. It is drawn from the [MEAS Technical Note on Teaching in Field Settings and Laboratories](#).

## The stages of successful instruction in field settings

The planning and organizing of instruction in field settings should be based on three stages: pre-experience, experience, and post-experience (Fig. 2).



**Figure 2. Instruction in Field Setting Planning Models (Myers 2012)**

### First Stage: Pre-experience

The pre-experience stage of instruction in field settings is made up of two major components: administration and instruction. The administration component consists of the logistical steps required to organize a visit. These include securing permission for the visit, contacting those at the field site and securing transportation. Unfortunately, instructors often spend all their time during the pre-experience stage focusing on these kinds of administrative tasks. Although administration work is required, it should not be the only aspect of the pre-experience stage. To ensure the educational value of the field visit, the instructional aspect of the pre-experience stage should not be forgotten.



**Figure 3.** *Providing exposure to orchard management practices in a classroom sitting in Tajikistan before going to the field to see the practices in use (Source: Brian Flanagan).*

participation) prior to the trip (Fig. 3). Such exposure can involve photographs, video, drawings or other materials provided pre-field. The location of restrooms and other basic features of the site should also be identified. If participants will be on the visit during a meal time, such arrangements should also be discussed prior to the visit.

To boost the educational impact, pre-experience teaching should be based on what students will be learning and observing during the field visit. Pre-experience teaching makes it easier for participants to focus on the educational goals of the trip. It is important for extension workers to give farmers verbal cues during pre-experience instruction regarding what to look for during the field activity. As small groups of 2-3 individuals are most effective for field-based learning, specific roles of each group member (such as observer or recorder) should be assigned and explained before the trip.

## **Second Stage: The Experience**

The second stage of successful instruction in field settings is the experience itself. To make the field experience successful two components need to be addressed: the role of the participant and that of the organizer during the event.

### *Role of participant*

The role of the participant is identified by creating an instructional agenda and sharing the agenda as well as the objectives of the field visit with the participants.

Suggested instructional field visit agenda outline:

#### 1. Start with free time

If it is safe and permissible, providing the participants a brief amount of time to wander the site and become acquainted with the surroundings will help them to become comfortable. Once their initial curiosity is satisfied, learners are better able to focus their attention on what is being taught.

## 2. Whole-group guided tour

The main event of an instructional field visit is often a tour of the site. A whole-group tour allows the guide or organizer an opportunity to highlight specific items that relate to the educational goals of the field visit. Participants also have opportunities to ask questions and make comments about what they are seeing (Fig. 4) during the tour and as well as during their own free time of exploring.



**Figure 4.** *Field visit participants in Tajikistan observing pruning in the field having previously discussed the methods in the classroom (Source: Brian Flanagan).*

## 3. Small group learning activity

The third proposed phase of the agenda is that of a small-group activity in which 2-3 individuals are asked to engage in a learning exercise within the field setting. Pre-assigned groups might work on an assignment that clearly relates to the learning objectives of the field assignment. Methods such as completing a worksheet can challenge the learners without frustrating them.

### *Role of organizer*

The organizer is responsible for monitoring and managing the field experience while also monitoring the participants' learning. To help farmers learn in a field setting, extension workers should be actively engaged in teaching activities such as interacting with participants to help answer questions and initiating discussion within small groups by asking questions. Organizers can increase participants' interest and learning by taking an active role as facilitators or guides.

### **Third Stage: Post-experience**

The final stage of successful instruction in field setting is the post-experience. This stage is made up of two components: debriefing and a culminating activity.

### *Debriefing activity*

The debriefing experience provides an opportunity for participants to share and discuss what they encountered in the field. It is the role of the instructor to facilitate this debriefing. The debriefing can be a time to share findings and results of the small group field assignment along with an opportunity to

discuss specific aspects of the experience or overall impressions. It should also offer the farmers a chance to point out or discuss problems encountered during the field experience.

### *Culminating activity*

This is an activity that allows participants to connect knowledge that they gained during the field experience with content learned previously (Fig. 5). This can either be conducted in small groups or as a whole class. Both the debriefing and culminating activities should occur soon after the field visit experience.

### Conclusion

Instruction in field settings should be an important part of any agriculture extension program and can strengthen other forms of teaching. Planning and organizing successful instruction in field settings can require a great deal of work for the organizer. However, if the extension worker follows the simple steps in each of the pre-experience, experience, and post-experience stages, the farmers can greatly benefit from the instructional field experience. The overall goal for teaching in field settings is to better equip farmers to take what they learn and apply that knowledge on their own farms.



**Figure 5.** Participants of an orchard field visit in Uganda are mapping out the ideal orchard on their own land based on what they learned in classroom trainings and saw on the visit. They will then individually present to the whole group (Source: Brian Flanagan).

### References

Myers, Brian E. 2012. [Technical Note on Teaching in Field Settings and Laboratories](#). Modernizing Extension and Advisory Services.

### Further Reading

Barrick, Kirby. 2012. [Methods and Techniques for Effective Teaching in Extension and Advisory Services](#). Modernizing Extension and Advisory Services.

