

OJT Training Module Cover Sheet

Title: 809 How to conduct an EMI investigation.

Type: Skill Knowledge

Performance Objective: Trainee will be able to:

- Plan an EMI investigation taking into account the objectives and physical and chemical soil properties present.
- Understand the differences between horizontal and vertical dipole modes and select the proper mode for the investigation.
- Design the investigation based on information needed and constraints of the site.
- Complete groundtruthing adequate for the information needed.
- Understand the effects of interferences that may be present at any given site and be able to adapt to them.

Target Proficiency:

- Awareness Understanding Perform w/ Supervision
 Apply Independently Proficiency, can teach others

Trainer Preparation:

- Trainer should be familiar with the assigned reading/review material in the lesson plan that follows.
- Must be knowledgeable about EMI systems and theory.
- Have local EMI investigation reports available for use as examples, or have future project in mind that may benefit from an EMI investigation.

Special Requirements:

Initiate an external learning request with a SF-182 in Aglearn for this activity. Instructions and a template are located on the training webpages for OJT modules.

Prerequisite Modules:

None

Notes:

None

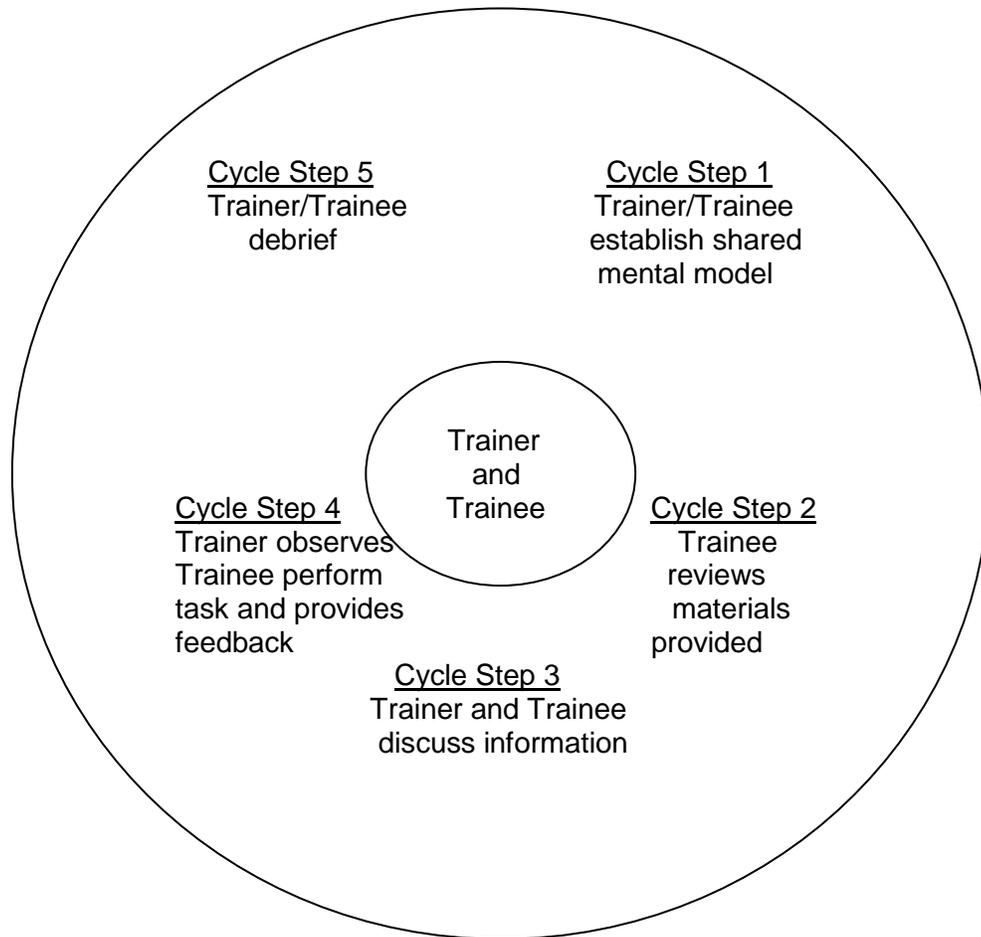
Authors:

Rachel Stout Evans
Marc Crouch

Approved by:

Shawn McVey

The Five-Step OJT Cycle for Declarative Training (Knowledge)



OJT Module Lesson

Title: **809 How to conduct an EMI investigation.**

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle step 1	Trainer and trainee review objectives of module.
Cycle step 2	Trainer and trainee read or review the attached: <ul style="list-style-type: none"> • How to Conduct an EMI Investigation.pdf
Cycle step 3	Trainer leads the following discussions:
1. Planning the investigation	<ul style="list-style-type: none"> • Objectives of the investigation • Physical and chemical soil property, soil moisture, and soil geomorphology influence on planning an investigation • Archaeological objectives and how they influence planning an investigation
2. Depth of soil penetration	<ul style="list-style-type: none"> • When to use either or both of horizontal and vertical dipole modes.
3. Designing the field survey	<ul style="list-style-type: none"> • Grids • Line spacing • Land cover and land use influences
4. Ground truthing EMI results	<ul style="list-style-type: none"> • Applying to observed patterns • Utilizing geo-referenced points for observation
5. Dealing with Interferences	<ul style="list-style-type: none"> • Electrical interference • Cultural noise • Conductivity anomalies
Cycle step 4	Trainer should provide an existing local EMI investigation plan (and report) or if not available, reference a future MLRA project that may benefit from an EMI investigation. Review the example and ask the trainee to plan an investigation addressing all points discussed in Cycle step 3.
Cycle step 5	Trainer can debrief trainee and address any concerns.

OJT Module Lesson Measurement of Learning

Title: 809 How to conduct an EMI investigation.	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Trainee's learning is measured.	ASAP, have the trainee develop a plan for a scheduled EMI investigation.

SF-182

Trainee and/or supervisor access Aglearn to verify completion of the module via its SF-182.