

OJT Training Module Cover Sheet

Title: **010 How to design a map unit**

Type: Skill Knowledge

Performance Objective: Trainee will be able to...

- Understand the basic concepts of map unit design

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.

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

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Notes:

This should be done in conjunction with the following modules:

- 011 How to recognize and use components in soil survey
- 012 How to recognize and distinguish map units in soil survey
- 013 How to name map units

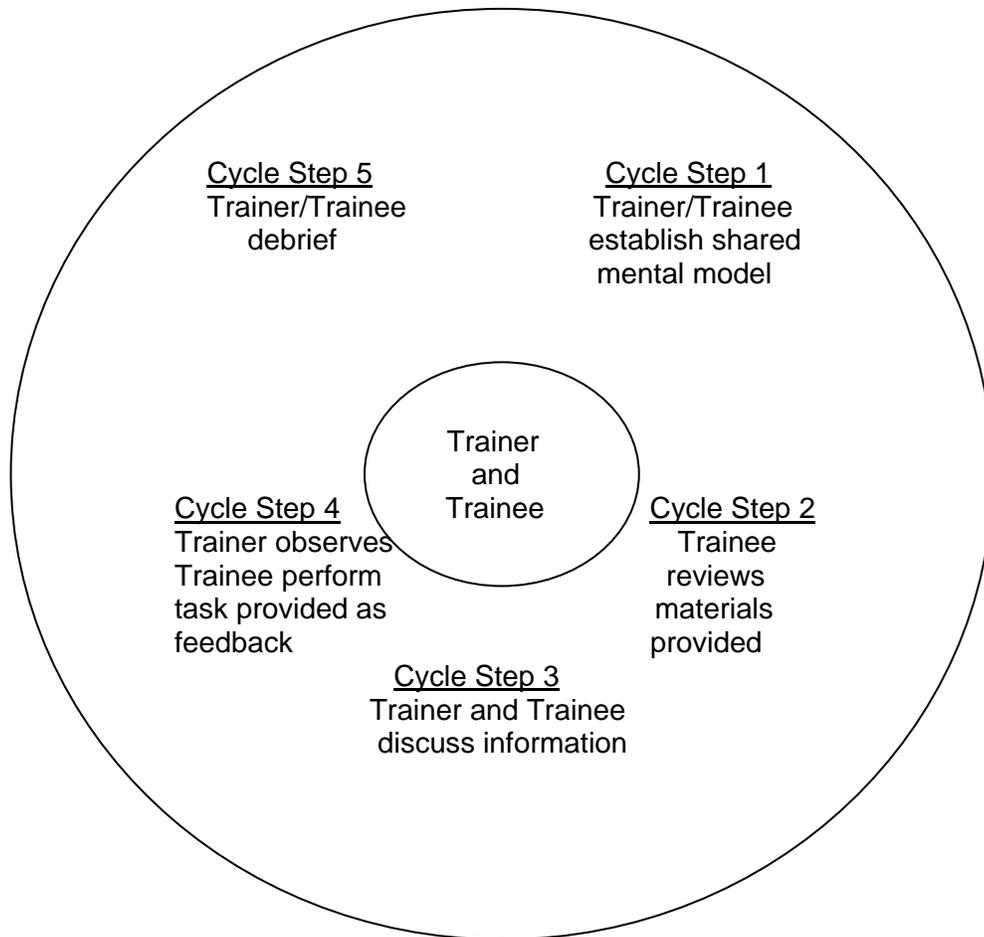
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The Five-Step OJT Cycle for Declarative Training (Knowledge)



OJT Module Lesson

Title: 010 How to design a map unit	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle Step 1	Review the objective and understand that this module is meant to be an overview of the concept and not an activity to design a map unit.
Cycle Step 2	<p>Trainee should access via the internet and read Soil Survey manual, pages 23-27, Designing Map Units.</p> <p>Trainee should access via the internet and read NSSH 627.03 (a, b, & c).</p>
Cycle Step 3	Discuss with the trainee the issues involved in map unit design and relate these issues to your soil survey area. Give examples from your survey area as appropriate.
1. All map units must meet two tests.	Ask for the two questions (they are in the SSM reading). Discuss what each means.
2. What drives the objectives of a soil survey and how does this affect map unit design?	Discuss in general and discuss your survey area. Include existing MOUs that may be in effect in your survey area and how the MOU is a driver of map unit design. Discuss how land use affects map unit design in your survey area.
3. How does intensity of soil survey affect map unit design?	Discuss how order of soil survey (order 2 or order 3) and scale of survey (1:12,000 versus 1:24,000) affect map unit design in your survey area.
4. How do the five soil-forming factors affect map unit design?	<p>Start with a common geomorphic description in your survey area. "Drill down" from the landscape to the landform to the microfeature or anthropogenic feature if applicable and then the surface morphometry of each geomorphic component where appropriate.</p> <p>Add in the geology. Where do you get that information in your survey area?</p> <p>Do you have vegetative data? Where do you get that information in your survey area?</p> <p>Do you have separate climatic data (or does the veg data infer that for you)?</p>
5. Involve soil components and phasing in the process.	<p>There are separate OJT modules addressing components and map units, so the trainer should utilize them in conjunction with this module.</p> <p>In this module, discuss how components and phasing are used to represent the landscape in your survey area.</p> <ul style="list-style-type: none"> • Discuss the various taxonomic levels used

	<p>as components if levels higher than the soil series are named as components in your survey area</p> <ul style="list-style-type: none"> • Provide an overview of how major components represent the map unit and how minor components are part of the map unit design. Discuss how minor components may or may not occur in each and every polygon. • Discuss the typical phasing used in your survey area.
6. How do we document our map unit design decisions?	Use the OJT modules for documentation. Trainer should provide a general overview of how this is done in your survey area. Include an overview of how a landscape model can help visualize a suite or catena of map units. Provide examples if available.
7. How is map unit design finalized via the correlation process?	Trainer should provide an overview of how this is done via NASIS, field reviews, and other methods used in your survey area.
Cycle Step 4	
Trainee performs task as assigned.	<p>Trainer should select a landscape/landform not used as an example above, and ask the trainee to utilize guiding documents, soil-forming factors, and other information to begin map unit design in that selected area.</p> <ul style="list-style-type: none"> • Discuss how to phase. • Discuss how to determine components. • Apply the two-question test for all map units.
Cycle Step 5	Debrief. Repeat any steps necessary to complete the goal of understanding.

OJT Module Lesson Measurement of Learning

Title: 010 How to design a map unit	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Summary	Cycle Step 4 begins the measurement of learning.
Quiz	Complete the quiz provided below.

SF-182

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

Quiz

1. Every map unit that is tentatively identified is evaluated by two tests. Name them.
 - a. _____
 - b. _____
2. When designing map units, you should consider which two or more of the following:
 - a. Objectives of the survey
 - b. Intensity of survey
 - c. Minimum size management unit
 - d. Landscape-landform signature
3. Most delineations of map units include dissimilar soils or miscellaneous areas of minor extent that are not identified in the map unit name.
 - a. True
 - b. False
4. The geology in any given area is not involved in map unit design.
 - a. True
 - b. False
5. Phase distinctions must be compatible with natural variability and practical needs.
 - a. True
 - b. False