

MCAS CHERRY POINT ON-THE-JOB TRAINING INSTRUCTOR COURSE



DAY ONE

OJT INSTRUCTOR COURSE

Topic #1: Thinking About Learning

Purpose

The purpose of this topic is to demonstrate the impact of emotions on learning.

Goals

- To analyze factors that impact the learning process and performance.
- To identify strategies for dealing with learning plateaus.

Approximate Time

1/2 Hour

Materials

- ✓ Handout: The Number Game (6 copies per participant)
- ✓ Blank sheets of paper (1 sheet per participant)

Instructions

1. **Introduction**

Tell the participants they are about to take part in a demonstration on teaching techniques. (Note: Do not present the stated purpose of this topic.) **Slide 4.**

2. **Activity: The Number Game**

(**Note:** This exercise was adapted from Games Trainers Play, by Edward E. Scannell and John W. Newstrom. New York, NY: McGraw-Hill Book Company, 1980.)

2.1 Explain that this activity is a simple eye-hand coordination exercise in which the participants are to work as fast as they possibly can within a given time period.

2.2 Distribute six copies of "The Number Game" handout to each participant. Ask the participants to place a blank sheet of paper over the numbers so they cannot see the placement of the numbers.

2.3 Tell the participants:

"Remove the blank sheet of paper. With a pen or pencil, draw a line from #1 to #2, then to #3, and so forth, until I say stop. OK? GO!"

2.4 Allow 60 seconds, then say:

"Stop. Please circle the highest number you reached and jot down the number 1 in the upper right-hand corner."

2.5 Repeat this exact procedure five more times, each time allowing only 60 seconds. Make sure that the participants number each sheet in sequence.



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2.6 Following the Number Game, begin a group discussion by asking:

Q. How many of you had an increase in the number reached each time? **(normally 40)**

2.7 Reason for lack of improvement: If there were participants who did not increase each time, then ask:

Q. Why do you think your performance did not consistently improve with each attempt?

If not mentioned by the participants, add the following points:

- Lack of Motivation: *There were no incentives for improving each time.*
- Numbers Missing or Stuck on Same Number
- Too Stressful: *Stress increased when performance fails to improve from one attempt to the next.*
- Lack of Feedback: *There was no guidance for improving performance between attempts.*
- Repetition of Unsuccessful Strategies : *Bad strategies tend to get more entrenched when they are repeated over and over.*

2.8 Emotions and Learning: Next, ask the following questions about the relationship between emotions and learning:

Q. How did this activity make you feel?

Some possible responses are:

- *Frustrated*
- *Angry*
- *Challenged*

Q. How do emotions impact your ability to learn?

If not mentioned by the participants, add the following points:

- *Positive emotions can motivate learning.*
- *Negative emotions can block learning.*

Q. What common emotions impact the trainee's ability to learn?

Q. What impact do OJTIs have on the positive and negative emotions that trainees experience?

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3. Learning Plateaus

Point out that the Number Game demonstrated how easy it is to reach a learning plateau. Begin a discussion on learning plateaus by asking the following questions:

Q. In the Number Game, did anyone experience an improvement in performance followed by a slight decline or leveling out of performance?

Make the following key points about learning plateaus:

- *Trainees often experience learning plateaus.*
- *Learning plateaus during OJT are not necessarily bad. Sometimes trainees need to feel comfortable with a set of knowledge and skills before moving on to the next level.*

Q. What are some possible reasons that a trainee's performance may plateau during OJT?

If not mentioned by the participants, add the following points:

- *More Time Needed: More time may be needed on a particular knowledge or skill area before moving on to a more complex area.*
- *Inadequate Feedback: There may be inadequate feedback between the OJTI/supervisor and trainees. This may cause trainees to feel unmotivated to improve their performance. Or, the trainees may feel that they are making adequate progress.*
- *Afraid To Ask for Help : Trainees may not want to ask for help.*

Q. What can you do as OJTIs/supervisors to help trainees overcome learning plateaus during OJT?

Some possible responses are:

- *Provide reinforcement for improved performance.*
- *Provide timely and specific feedback.*
- *Change your instructional methods.*
- *Reassure the developmental that plateaus are normal in the learning process.*

Q. What can OJTIs/supervisors do to deal with the frustration they feel then the trainee's performance has reached a "plateau"?

Some possible responses are:

- *Take a break-have another OJTI provide training.*
- *Ask the trainees if there is anything you should do differently.*
- *Look for small indicators of progress-reset your expectations.*
- *Network - talk to other OJTIs, training specialists, supervisors, etc. to get ideas.*

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4. **Summary**

4.1 Ask the participants the following question:

Q. Do you have any additional comments about how emotions can effect the OJT environment?

4.2 Tell the participants that the next topic deals with adult learning principles and characteristics.

The Number Game

①

53 16 54
39 15 28 40 6
27
13 17 51 5 2 26 52
29 3 41 14 50 30
37 49 25 38 18 4 42
7 23 55 46 36 34
35 43 31 22 44 12
11 19 57 8 24 58
47 33 45 20 32 56
21 9 59 48 60 10

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Topic #2: Enhancing Learning and Memory

Purpose

The purpose of this topic is to provide the participants with tools that enhance learning and memory, such as association (knowing how new information relates to known information), visualization (creating a visual image of the information), and chunking (organizing small bits of information and then applying the information).

Goals

- To describe the relationship between learning and memory.
- To describe techniques for developing associations between new information and known information.
- To describe techniques for creating a visual image of the information to create a more lasting impression.
- To describe techniques for chunking information to be learned into small bits and then using that information.

Approximate Time

1/2 Hour

Materials

- ✓ Chart paper and easel
- ✓ Markers
- ✓ Masking tape
- ✓ Participant Manual: Page 4

Instructions

1. Entry Learning Experience

1.1 Tell the participants that you are about to read a list of items. Explain that they should listen while you read the list. **Slide 5.**

1.2 Read the following list of items.

METAR. Hail. Wind. Knife. Justice. Bird. Tree. Watch. Desk. Truth. Table. Fork. Pen. Stream. Wisdom. Stream. Flower. Zulu. Time. Meaning. Field. Pencil. Carbon.

Note: Prior to the session, write these words (in the order above) on chart paper. To show the different types of words, use different color markers for each of the following categories:

(Associated with Job: METAR, Hail, Wind, Watch, Desk, Zulu, Time; Abstract: Justice, Truth, Wisdom, Meaning; Concrete: Knife, Bird, Tree, Table, Fork, Pen, Stream, Flower, Field, Pencil, Carbon.)



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- 1.3 Ask the participants to write down as many of the words that they remember as possible.
- 1.4 Display the chart paper listing, the words. Read each word and ask how many people recalled that word. Tally the number next to the word.
- 1.5 Place a checkmark next to the words most frequently recalled by the group. Ask the following question:

Q. What do you observe about the words that were recalled most?

Q. Did you recall any words not on the list? If so, why do you think you added these words?



- 1.6 Building on the comments made by the participants, present the following information points about learning and memory. Before you present each point write the underlined words on chart paper.
 - 1.6.1 **Beginnings and Endings:** People tend to remember more from the beginning and end of a learning session. Participants may have recalled the beginning words: "SIGMET, hail, and wind," and the ending words: "pencil and carbon."
 - 1.6.2 **Concrete Versus Abstract:** People tend to remember information that they can turn into a visual image. It is harder to create a visual image for the words "justice, truth, and wisdom." These words may not have been remembered as well as words such as "stream, pencil, and carbon."
 - 1.6.3 **Association:** People tend to remember more when they can associate the information with something important to them. For example, the words "SIGMET, hail, and wind" and "watch and desk" may have been easy to remember because they were associated with the job. Ask the participants the following question:

Q. Was it confusing when the words changed from being job-related to a more random list?

Note that when taking in new information, people look for associations. Point out that new information is hooked into old information. Explain that by changing from ATC terms to random terms, they were left searching for places to hook the information to. Note that by the time they found the right hooks, several new terms had come and gone.

- 1.6.4 **Chunking:** People tend to remember more information when it is presented in clusters or groups.

Q. What type of "chunking" do you use when working a busy position?

Examples ...

- *Clustering aircraft by actions needed (e.g., arrivals, overflights entering sector, those that can be 'shipped' quickly, etc.).*
- *Types of requests being made by pilots.*

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- *Portions of airspace or other physical locations.*

Q. How do trainees learn to chunk information when working a position?

Most trainees learn chunking through trial and error. OJTIs often don't communicate chunking strategies.

Q. Why do OJTIs fail to communicate chunking strategies to trainees?

OJTIs may not be aware of the chunking strategies they are using. Some techniques that can be used to become more aware of the chunking strategies being used include:

- *Use a simulation or paper representation of the radar, BRITE runways, or weather systems, and ask other FPL's how they would organize the events into logical groupings.*
- *Talk aloud while working to explain to the trainee how you have the position organized.*
- *Think about what changes you typically make when you assume responsibility for a position.*
- *Ask the trainee to explain how he or she has chunked information on position.*

1.6.5 **Mastery Learning:** Explain that "Mastery Learning" is ensuring that the trainee learns the foundation "chunks" of knowledge and skills before proceeding to the more advanced "chunks." Point out that a quality foundation is needed before building the next stories of a building, and that each story of the building is as stable as the one below it. Note that you can remember the concept of "Mastery Learning" by visualizing a building or building blocks.

Q. Can you think of examples where trainees may have inadequate foundation knowledge or skills?

Examples . . .

- *Not understanding how weather impacts aircraft performance.*
- *Not having mastered keyboard entries.*
- *Not knowing the proper phraseology.*
- *Not knowing different aircraft performance characteristics.*

Point out that a weak foundation may prevent a trainee from concentrating on the more advanced skills such as maintaining situation awareness ("seeing the picture"; "predicting changes in the picture"). Stress that skill enhancement training can be used to help correct foundation problems. Note that correcting foundation problems may free up the trainee to do better thinking!

References: Rose, C. Accelerated Learning. New York: Dell Publishing, 1985.

Human Technology, Inc. Cognitive Task Analysis of En Route Air Traffic Controllers. FAA, 1992.

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1.7 **Show PowerPoint Slide #6 and #7.** Explain that these present a summary of the points presented in this session. Note that the next portions of this topic will present techniques for using these learning and memory principles.

(**Note:** If you have not covered adult learning principles, you may also want to review **pages 2 and 3.**)



2. **Activity: Using Learning Techniques** (Optional)

2.1 Divide the participants into four groups. Assign one of the following areas to each group: Creating Good Beginnings and Endings; Creating Visual Images for Learning; Creating Hooks (Learning Associations); and Chunking



2.2 Refer the participants to **page 4** in their Participant Manuals. Let the participants read through the following instructions:

Instructions: Working as a team, identify three specific examples of how these learning techniques can be used in OJT. Listed below are some hints to get you started:

Creating Good Beginnings and Endings: Think about the prebrief and debrief time. Also, think about what you and the trainee may remember from the middle of the session. What can you do to improve the beginnings and endings?

Describe three specific examples of "using good beginnings and endings" techniques in OJT.

Creating Visual Images: Think about the abstract concepts (e.g., weather, density, altitude) that you have to explain to the trainee during a session or during a debrief. Are there ways to create visual images? Remember ... Words can create images as well as graphics.

Describe three specific examples of explaining abstract ATC concepts using visual images.

Creating Hooks: Think about how to connect new information to something known. Remember: Analogies and/or comparisons of new information to known information work great. For example: Compare mastery learning to constructing a strong building foundation. Don't be afraid to create visual images with your associations!

Describe three specific examples of how OJT's can help trainees hook new information to something they already know.

Chunking: Think about the value of identifying the important chunks (i.e., position specific knowledge and skills) to be mastered during OJT for each position. How will knowing these chunks in advance help the OJT and the trainee? Also, think about the relationship between chunking and providing feedback in a debrief.

Describe three specific examples of how chunking can be used in the OJT environment.

2.3 Tell each group to select a spokesperson to:

- Record the group's examples on chart paper.
- Present the group's examples.

2.4 Tell the participants they have 10 minutes to complete this activity.

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2.5 After 10 minutes, have the spokespersons present their examples. After each group presents its examples, ask the other participants for additional examples of how this learning technique can be used in OJT.

3. **Summary**

Ask the participants the following question:

Q. What is one thing that you hope to remember about the learning techniques presented in this topic?

Ask for volunteers to share their responses. Summarize the key learning points using the information presented by the participants.

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Topic #3: Enhancing ATC Decision making

Purpose

The purpose of this topic is to provide the participants with techniques for identifying and teaching decision making strategies to trainees.

Goals

- To describe the importance of teaching decision making.
- To develop techniques for identifying decision making strategies used by experienced controllers.
- To develop techniques for communicating decision making strategies.

Approximate Time

1 Hour

Materials

- ✓ Chart paper and easel
- ✓ Markers
- ✓ Masking tape
- ✓ Flowchart templates per group (Note: The activity can be done without the templates.)
- ✓ Participant Manual: Pages 5 and 6

Instructions

1. **Introduction: Understanding Decision Making Strategies**

1.1 Ask the participants to think back to when they were a trainee. Write down one decision making strategy they learned that made the job easier (e.g., extend upwind to bring pattern back in, (standard rate) 360 degrees on downwind, vector to a reference point, comprehensive knowledge of airspace makes vectoring easier, when busy make one handoff for every one accepted, yell for help before you go under, etc.). Ask for volunteers to share these strategies. **Slide 8.**

1.2 Next, ask the following question:

Q. How did you learn this strategy?

If not mentioned by the group, explain that decision making strategies are often learned the hard way: by making errors and learning from them. Also, note that decision making strategies are not communicated before the trainee begins OJT.



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1.3 Explain that decision making strategies are difficult to teach because:

- Experienced controllers may not be aware of the strategies they are using.
- Experienced controllers use more advanced strategies (e.g., shortcuts) that may be dangerous for beginners.
- Experienced controllers assume beginners already have discovered these strategies. "If I could figure it out-anyone can!".

1.4 Ask the participants the following question:

Q. Are there other reasons why decision making strategies are not taught to trainees?

If not mentioned by the group, explain that OJTIs have been given the message that it is wrong to teach technique. Stress that teaching technique helps pass ATC knowledge from one generation of controllers to the next. Note that OJTIs should help the trainee develop as many different techniques as possible. Explain that OJTIs must not judge the trainee based on technique. Emphasize that judging technique is different from teaching trainees about different decision making strategies to meet the objective.

1.5 Tell the participants that to teach decision making strategies, OJTIs must first be able to identify the strategies they use. Note that the next activity will demonstrate a technique for identifying decision making strategies.

2. **Activity: Identifying Decision making Strategies**

2.1 Divide the participants into small groups for this activity.

2.2 Have each group develop a flowchart showing the steps that must be followed and the logic that must be used to complete the following action: **Slide 9.**

Pulling a car out into traffic to make a left-hand turn.

Making a peanut butter and jelly sandwich.

Making Nachos.

Filling out a position log.

Making a chow run.

Note: A sample flowchart appears at the end of this topic.

2.3 Tell the participants to turn to **pages 5 and 6** in their Participant Manuals where they can review the activity and a sample flowchart.

2.4 Tell each group to select a spokesperson to record the group's flowchart on chart paper and present it at the end of the activity.



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- 2.5 Give the groups 20 minutes to complete this activity.
- 2.6 Compare the similarities and differences among the flowcharts.
- 2.7 Next, ask the following discussion questions:

Q. When you are making a left turn into traffic or making a sandwich, how many of the decisions and steps in the flowchart are you aware of?

Point Out: The more expertise you have, the more likely you will combine steps and decisions into fewer known actions. For example, issuing an instruction to a single aircraft that solves both the current separation problem and a potential problem that may occur in a few minutes is an example of a decision making strategy.

Q. If you were teaching a new trainee, how might you use this flowchart?

If not mentioned by the participants, add:

- *Use a simplified version in a "prebrief" session.*
- *Use the flowchart as an instructor checklist to make sure the student completed all the steps.*
- *Ask the student to draw a flowchart to see if he or she knows all the steps and decisions to be made before getting in the car.*
- *Use the decision points to ask "What if" questions: "What would you do if . . . ?"*



Show the group an example of a flowchart. **Slide 10.**

3. **Summary**

Ask the participants the following question:

Q. What are some ways that decision making strategies can be identified and communicated in the OJT environment?

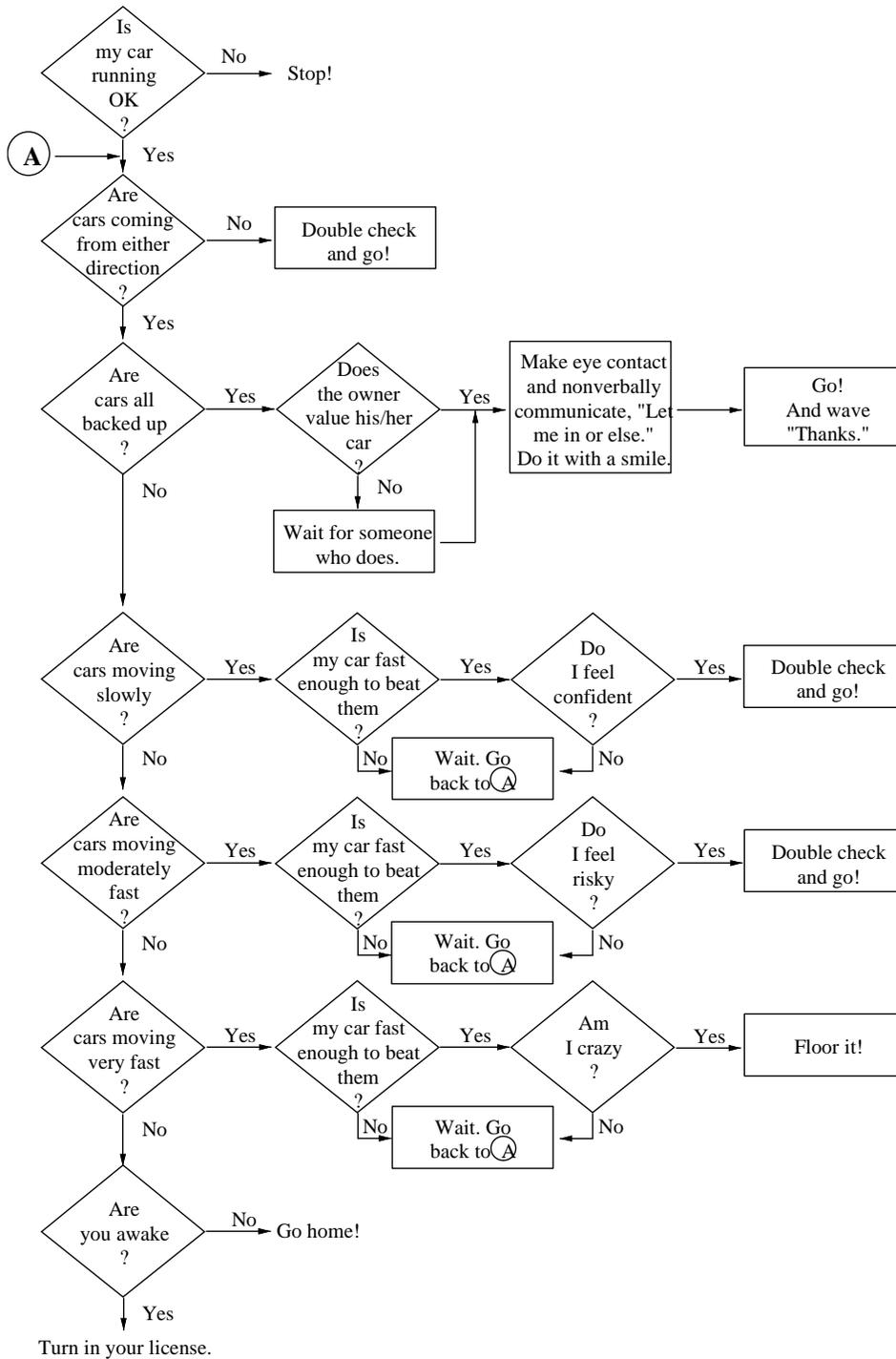
If not mentioned by the participants, add:

- *Have the trainees watch while you talk through the decision making strategies you are using.*
- *Have the trainee explain the reasons for his or her actions.*
- *Ask the trainee to diagram his or her decision logic using a flowchart.*

This is the concept behind Training Manuals with checklists.

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Sample Flowchart
 Making a Left-Hand Turn



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Topic #4: Explaining Complex Concepts

Purpose

The purpose of this topic is to provide the participants with the opportunity to practice applying adult learning principles and techniques of enhancing learning by designing and presenting a brief learning activity to teach a complex ATC concept.

Goals

- To translate the learning concepts into actions.
- To practice presenting information to others.

Approximate Time

1 to 2 Hours (Depending on the size of the group)

Materials

- ✓ Chart paper and easel
- ✓ Markers
- ✓ Masking tape
- ✓ At least one copy of the Aeronautical Information Manual
- ✓ At least one copy of Order 7110.10 and Order 7110.65

Instructions



1. **Introduction**

Present the purpose of this topic. **Slide 11.**

2. **What, Why, and How!**



2.1 Write the following three words on a piece of chart paper: What, Why, and How.

2.2 Explain that effective training methods . . .

What: Describe what is being learned.

Why: Explain why it is important to learn the information.

How: Provide clear guidance on how to do each skill.

2.3 Point out that trainees are often told "how" to do something without knowing "what" it is they are learning or "why" they are learning it.

Q. What can happen if you tell the trainee how to turn an aircraft without explaining why?

If not mentioned by the participants, add that the trainee may try to repeat this action at the wrong time.

2.4 Stress that explaining the "Why's" is the key to learning.

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3. **Activity: Using Effective Training Methods**

3.1 Explain to the participants that they will have an opportunity to practice using -- effective training methods. Tell the participants that you will first demonstrate a presentation that uses the training methods covered in the previous topic.

3.2 Divide the participants into groups of three to four participants. Note: You can divide the groups by passing out colored objects (e.g., candy, slips of paper, cards, 0 etc.) and having the participants grouped by colors.

3.3 Assign an ATC concept to each group. Note: Use the following concepts or others that may be more relevant to your participants:

- Ratio of Altitude to Distance on a 3 degree glide slope and how it relates to AGL.
- Density Altitude (including the relationship between temperature, altitude, and air density and the impact on aircraft performance)
- AGL Versus MSL + Altimeter Settings
- Great Circle Route (including its relationship to air traffic)
- Indicated Air Speed, True Air Speed, Ground Speed, and Mach Speed (including the impact of wind on measures of speed)
- True North Versus Magnetic North (including its impact on navigation)
- Mathematical Techniques Used in Locating Lost Aircraft
- Local Time Versus Zulu Time
- Crosswinds and Turning Radius
- VFR vs VMC and IFR vs IMC

3.4 Present the following instructions to the groups for this activity.

Instructions: Working as a team, develop a 2- to 4-minute presentation on your assigned topic. Your presentation should:

- ✓ Have a strong beginning and ending.
- ✓ Create visual images. (Hint: Visual images can be formed through the use of graphics, stories, descriptive words, showing examples, etc.)
- ✓ Form an association to existing information. (Hint: Associations can be formed by telling "why" the information is being presented, by the use of analogies, by comparing to a common object or process, etc.)
- ✓ Organize information into logical chunks.
- ✓ Use adult learning principles.

3.5 Give the groups 20 minutes to prepare their presentations.

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3.6 Tell the groups that copies of the Aeronautical Information Manual are available as a reference. Also, encourage the participants to be creative and to use any object they can find in the training room.

3.7 After 20 minutes, have each group conduct its presentation. After all of the presentations, ask the groups to identify the techniques they thought were particularly effective.

4. **Summary**

Ask the participants the following question:

<p>Q. Which learning techniques, covered in this section of the workshop, will you most likely use in the OJT environment?</p>
--

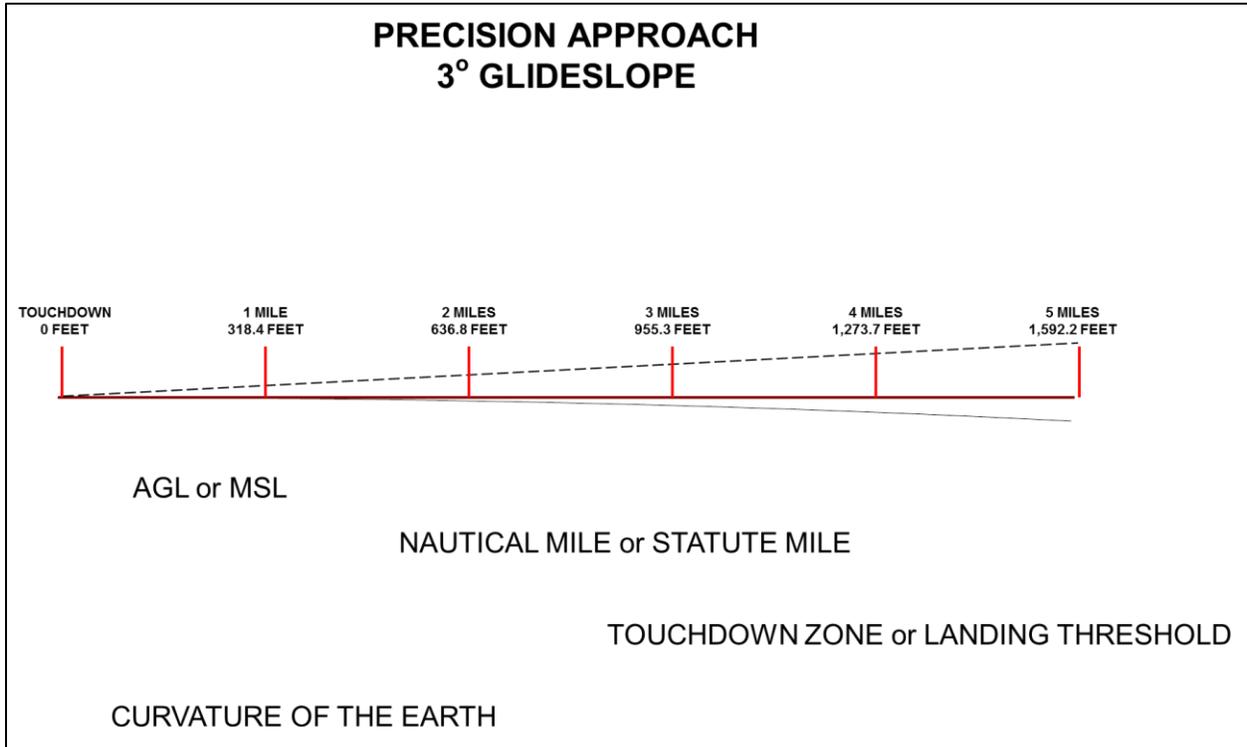
Ask for volunteers to share their responses. Summarize the key learning points using the information presented by the participants.

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Instructor Demo

1. **Required Materials**

1.1 You will use the following slide: **Slide 12.**



2. **Opening**

2.1 Tell the following story to the participants:

“Many of the measurements that we used prior to entering the field of air traffic control were based on statute miles, ground level and miles per hour. In aviation, we now deal with nautical miles, airspeed in knots, altitudes related to both ground level and sea level, air pressure (altimeter) and directions relative to true north and magnetic north.”

2.2 Tell the participants that now you are going to do a short presentation to illustrate this concept. Ask them to please watch closely.

3. **Demonstration**

“In this demonstration, we are going to determine the altitude at which an aircraft intercepts the glideslope on a precision approach.”

“First we see that the glideslope begins at touchdown which is 0 feet AGL. At one nautical mile on a 3 degree glideslope the altitude is 318.4 feet. At two nautical miles, 636.8 and so on.”

“From what point are these altitudes measured?” From the touchdown point.

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“At what altitude is the aircraft in the GCA pattern?” 1,600 feet MSL.

“What altitude is this AGL? How about using the touchdown elevation?” It will be different for each runway using touchdown elevation but will always be 1,600 feet MSL.

“So let’s say for runway 32L that the touchdown elevation is 26 feet MSL. That would put the aircraft at 1,574 feet AGL relative to the touchdown. So at 5 nautical miles the aircraft should be about 20 feet below glideslope.” (nautical mile 6076.1feet)

“There is one factor that we haven’t considered for this relative altitude. Curvature of the earth. It is not important to the controller in determining glideslope intercept altitudes but is used by Terminal Approach Procedures for determining obstacle clearance. At 5 miles, the earth curves downward at about 3 feet.”



The approach minimums listed in Flight Publications show the differences of touchdown and the effect 3 degrees has on threshold crossing heights. **Slide 13.**

4. **Summary**

4.1 Ask the following discussion questions:

Q. What types of visual images were used during this presentation?

Possible answers may include:

- PowerPoint slides

Q. What types of hooks or associations were used?

Possible answers may include:

- Above Ground Level
- Mean Sea Level
- Touchdown Elevation
- Glideslope

Q. Were the beginning and ending of this presentation meaningful? Why?



Show the group a map of the time zones. **Slide 14.**

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Topic #5: Understanding the OJT/Qualification Process

Purpose

The purpose of this topic is to provide an overview of the OJT/Qualification process.

Goals

- To apply the requirements of ATC Facility Manual to common OJT situations.
- To review the key elements of ATC Facility Manual, Chapter 4 and Appendix G.

Approximate Time

2 Hours

Materials

- ✓ Chart paper and easel
- ✓ Markers
- ✓ Masking tape
- ✓ Participant Manual: Pages 7 through 10
- ✓ ATC Facility Manual, Chapter 4 and Appendix G

Instructions



1. Introduction

Introduce the purpose of the topic. **Slides 18-38.**

2. The Fundamentals of ATC Facility Manual, Chapter 4

Important: It is critical that all instructors thoroughly review ATC Facility Manual, Chapter 4 and Appendix G before presenting this topic.

- 2.1 Assign one situation to a small group of participants. (**Note:** The small group may be as small as two or as large as six participants. If your group size is small, you may want to assign more than one situation to each group. *It is important that all of the situations be covered during this activity. If necessary, you can review any extra situations in a large group discussion.*)
- 2.2 Tell the participants to read the assigned situation and then answer the questions together with the other group members. Encourage the groups to use the Facility Manual to help them answer the questions.
- 2.3 Tell the groups to record their response to the last question on the chart paper. Suggest that each group select a spokesperson to present the group's responses at the end of the activity.
- 2.4 Tell the participants they have 10 minutes to complete this activity.
- 2.5 After 10 minutes, have the spokespersons present their group's responses.

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Topic #5: Understanding the OJT/Qualification Process



Situation #1

A training team reaches agreement that the trainee needs skill enhancement training on voice quality and speed while reading ATC clearances. The skill enhancement training includes the following:

- 4 hours to observe effective clearance delivery
- Playback of his/her own audio recordings
- 2 additional weeks of OJT

SLIDE 30

Questions:

Is this assignment of skill enhancement training permitted by ATC Facility Manual, Chapter 4?

- No

Rationale:

- *The assignment of OJT and the Tape Talk is permitted by ATC Facility Manual, Chapter 4.*
- *Plugged in time on position is the same as OJT hours. Paragraph 4-310 states that skill enhancement training shall not include OJT.*

What specific paragraph(s) in ATC Facility Manual, Chapter 4 support your answer?

- *Paragraph 4-310*

What are two important points that OJTIs should remember about skill enhancement training?

Skill enhancement training ...

- *Is used to help the individual correct weaknesses, or to develop skills that cannot be obtained in the operational environment.*
- *Is not OJT, and therefore does not count toward target hours.*
- *May include tutoring, simulation, monitoring, and any other training method that will help the individual to qualify.*

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Topic #5: Understanding the OJT/Qualification Process



Situation #2

The secondary OJTI is away on a 2-week vacation. The primary OJTI calls in sick. The supervisor informs the trainee that OJT will have to wait until the primary OJTI is back. The trainee asks why another OJTI can't provide OJT. The supervisor states that only training team members can provide OJT. Another OJTI would have to be added to the training team.

SLIDE 31

Questions:

Is the supervisor's decision in accordance with ATC Facility Manual, Chapter 4?

- *No*

Rationale:

- *Paragraph 4-305 d. does not restrict the trainee to only his/her team members, any OJTI may provide training.*

What should the supervisor consider before assigning an OJTI who is not on the training team?

- *Continuity of training is a critical consideration when using OJTIs who are not on the training team.*

What specific paragraph(s) in ATC Facility Manual, Chapter 4 support your answer?

- *Paragraph 4-305 d.*

What are two important points that OJTIs should remember about the roles of training team members?

- *The training team includes the trainee as full member.*
- *The supervisor serves as a team leader and directs the training process based on recommendations from other team members.*
- *The supervisor is the only person who can qualify the trainee, or suspend training.*

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Topic #5: Understanding the OJT/Qualification Process



Situation #3

The trainee has reached 75% of OJT time limit. The supervisor has just completed the 75% performance skill check. The trainee's performance was exemplary. After the performance skill check, all of the training team members agree that the trainee is ready for qualification. Because there is consensus, the supervisor decides to count the performance skill check as the qualification skill check.

SLIDE 32

Questions:

Is the supervisor's decision in accordance with ATC Facility Manual, Chapter 4?

- *No*

Rationale:

- *The Manual states that a skill check must be identified as a qualification skill check prior to the session.*
- *The qualification skill check shall be recommended by the training team or conducted at the completion of OJT time limit.*

What specific paragraph(s) in ATC Facility Manual, Chapter 4 support your answer?

- *Paragraph 4-311 and 4-312*

What are two important points that OJTIs should remember about qualification skill checks?

- *Qualification skill checks are conducted:*
 - *Only by supervisors.*
 - *After minimum qualification hours.*
 - *At the recommendation of the training team.*
 - *When target hours have been completed.*
 - *Only after the trainee has been notified.*
- *Time does not count toward OJT hours.*
- *Only the trainee's supervisor can qualify or suspend training.*

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Situation #4

A trainee has reached 100% of OJT time limit and is assigned 2 additional weeks. The maximum amount of additional OJT for this position is 2 weeks. After completing the additional OJT, the supervisor conducts a qualification skill check. The trainee's performance is still not acceptable. The training team decides that the trainee should be given skill enhancement training followed by another qualification skill check.

SLIDE 33

Questions:

Is the training team's decision in accordance with ATC Facility Manual, Chapter 4?

- *No*

Rationale:

- *The Manual states that if the additional 20 percent of the time limit has been used, the trainee's supervisor shall take one of the following actions:*
 - *Qualification, or*
 - *Suspension of training.*
- *At this point, skill enhancement training is not an option.*
- *A training review board is convened to make a recommendation to the ATCFO.*

What specific paragraph(s) in ATC Facility Manual, Chapter 4 support your answer?

- *Paragraph 4-313*

What are two important points that OJTIs should remember about additional OJT hours?

- *Additional OJT may be assigned to individuals who will not qualify in the allotted OJT time limit, but who, in the opinion of the training team, can qualify within the additional OJT.*
- *Training team can assign additional OJT up to 20 percent of the established time limit.*

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Situation #5

A Controller Evaluation Board is being conducted for a trainee who has not been able to qualify within the time limit and additional OJT. The CEB is being conducted by the ATCFO, the Training Chief, and the Crew Chief, who was the trainee's secondary OJTI.

SLIDE 34

Questions:

Is the composition of the CEB in accordance with ATC Facility Manual, Chapter 4?

- No

Rationale:

- *The Manual does not establish the makeup of the CEB. The ATCFO and/or training team members may be asked to provide information during the training review process, but shall not be part of the CEB.*
- *In this situation another representative should be designated to replace the Crew Chief.*

What specific paragraph(s) in ATC Facility Manual, Chapter 4 support your answer?

- *NAVAIR 00-80T-114 allows the ATCFO to determine the makeup of the CEB.*
- *ATC Facility Manual, par 4-603*

What are two important points that OJTI's should remember about the CEB process?

- *The purpose of the CEB process is to ensure that the trainee was given every opportunity for success.*
- *The CEB is performed by:*
 - *A union representative*
 - *At least two of the following individuals:*
 - ◆ *A first-level supervisor who is not the individual's supervisor*
 - ◆ *A second-level supervisor*
 - ◆ *Training administrator*
- *The CEB may recommend the continuation or the discontinuation of training. The ATCFO makes the final determination based on the recommendation.*

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Situation #6

LCpl Smith returned from a deployment. He was previously qualified on Tower Flight Data and Ground Control and has been away for 7 months. The Tower Chief conducts a performance skill check on both positions and determines that LCpl Smith meets performance standards.

SLIDE 35

Questions:

Is LCpl Smith recertified as required by the ATC Facility Manual, Chapter 4?

- *No*

Rationale:

- *The Manual requires a written examination and a qualification skill check for 6 months or greater.*
- *In this situation, a written examination must be completed.*

What specific paragraph(s) in ATC Facility Manual, Chapter 4, support your answer?

- *Paragraph 4-203*

What are two important points that OJTI's should remember about currency?

- *You cannot be an OJTI if you are not current.*
- *Radar Final Controllers must complete 10 approaches prior to conducting IFR approaches or OJT Instructor duties.*

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Situation #7

A trainee has reached 75% of the OJT time limit on Ground Control. During the course of the 75% skill check, the trainee's supervisor determines that the trainee has stopped progressing. The trainee's supervisor suspends training.

SLIDE 36

Questions:

Is the supervisor's recommendation in accordance with ATC Facility Manual, Chapter 4?

- *Yes*

Rationale:

- *The Order states that performance skills checks may include a recommendation of suspension of training.*
- *In making this recommendation, the trainee's supervisor shall consider:*
 - *The trainee's performance during OJT,*
 - *The performance demonstrated during the performance skill-check session,*
 - *The recommendation(s) resulting from the performance skill-check session, and*
 - *Input from other training team members.*

What specific paragraph(s) in ATC Facility Manual, Chapter 4 support your answer?

- *Paragraph 4-308*

What are two important points about suspension of training?

- *When training is suspended, a CEB review must be conducted.*
- *Only the trainee's supervisor can suspend training.*

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Situation #8

The trainee's supervisor conducted a qualification skill check. During the qualification skill check, the supervisor did not observe the trainee perform all job functions because traffic was light. All observed functions were satisfactory. However, the trainee's supervisor decided that the trainee could not be qualified because one item on FAA 3120-25 was marked "not observed." During the past performance skill check, the trainee performed all functions in a satisfactory manner.

SLIDE 37

Questions:

Should the trainee's supervisor deny qualification based on the fact that one item was marked "not observed"?

- *No*

Rationale:

- *According to paragraph 4-311 and Appendix G, for a qualification skill check to result in qualification, all applicable job functions must be rated as satisfactory or not observed.*
- *ATC Facility Manual, Chapter 4 does not require that traffic workload be moderate or heavy for qualification to occur.*

What specific paragraph(s) in the ATC Facility Manual support your answer?

- *Appendix G, Block 11, paragraph 3 and 4-311.*

What alternatives could the supervisor have considered?

- *Verbal questioning, simulation, or other methods may be used to demonstrate knowledge of a job function when not observed.*

What type of documentation is required if the supervisor determines that the trainee can be qualified?

- *If a job function is not observed during this session, the supervisor must document that the trainee has demonstrated satisfactory performance knowledge of the job function.*

What are two important points that OJTIs should remember about qualification skill checks?

- *Qualification skill checks are conducted.*
 - *Only by supervisors.*
 - *At the recommendation of the training team.*
 - *When target hours have been completed.*
 - *Only after the trainee has been notified.*
- *Time does not count toward OJT hours.*
- *Only the trainee's supervisor can qualify or suspend training.*

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Topic #5: Understanding the OJT/Qualification Process

3. Background and Key Elements of ATC Facility Manual, Chapter 4

Lesson Topic Guides and Local Qualification Standards provide a regulated process for completing knowledge and skill requirements as each trainee progresses through the program.

Refer the participants to **pages 7 through 10** in their Participant Manuals. Explain that these pages provide a summary of key elements of ATC Facility Manual, Chapter 4. Give the group a few minutes to review this summary. Next, ask the participants if they have any questions about the Manual. Explain that more information on ATC Facility Manual, Chapter 4 will be presented throughout the workshop.

4. Maintaining Quality Standards

4.1 Lead a discussion on maintaining quality standards in the OJT process by asking the following questions:

Q. What standards are used to judge a trainee's performance?

If not mentioned by the group add the following:

- *Compliance with FAA Orders*
- *Compliance with LOA's*
- *Compliance with local directives/regional supplements*
- *Critical job elements*

Q. What standards are you expected to maintain in the training process?

If not mentioned by the group add the following:

- *90 minutes per day of OJT*
- *Establishing a training plan*
- *Simulation prior to commencing OJT*
- *Primary/Secondary OJT Instructors providing majority of OJT*
- *Use of position relief checklists*
- *Proper Crew briefs*
- *Properly completing position logs*
- *Tape Talks*
- *Team meetings*
- *OJT prior to commencing OJT*
- *Briefing, training and following facility directives*
- *Required skill checks*

5. Training Notes – Slide 38



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Topic #6: Qualities of Effective OJTIs

Purpose

The purpose of this topic is to identify the characteristics of effective OJTIs. This topic provides a framework for the remainder of the workshop.

Goals

- To identify the characteristics of effective OJTIs.
- To determine how well groups work together to reach consensus.

Approximate Time

1/2 Hour

Materials

- ✓ Chart paper and easel
- ✓ Markers
- ✓ Masking tape

Instructions



1. Introduction

Introduce the purpose of this topic. **Slide 39.**

2. Activity

2.1 Divide the participants into two groups. Assign Statement 1 to the first group and Statement 2 to the second group. (**Note:** If your group is too small to break into groups, have the group do this exercise together.)

Statement 1: *Trainees* like to work with OJTIs who have the following characteristics . . .

Statement 2: Effective OJTIs have the following characteristics . . .

2.2 Ask each group to brainstorm and create a list of the characteristics. Allow each group 10 minutes to complete this portion of the exercise.

2.3 At the end of the allotted time, ask each group to choose the three most critical characteristics and order these three from most important (1) to least important (3).

- Emphasize that each group can only include three of the characteristics they listed. Each group must reach a consensus on the three most important characteristics and the order of importance.
- Allow the group 5 minutes to complete this portion of the exercise.
- Tell the groups to select spokespersons to present the lists to the entire group.

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Topic #6: Qualities of Effective OJTIs

2.4 Have each group present its lists.

Point out and discuss reasons for any similarities and differences in the lists developed by the two groups.

Note: Remember the groups identified two different sets of characteristics (i.e., the characteristics that make trainees like OJTIs and the characteristics of effective OJTIs).

If the lists are similar . . .

Point out that effective OJTIs have the same characteristics of those "liked by trainees".

If the lists are different . . .

Ask: How well can trainees learn from an "effective" OJTI they dislike?

2.5 Note that "People learn more from people they like." Explain that research has shown that when comparing what should have been similar classes, reading and math scores were higher in those classes where the students liked their teachers.

Knowledge	Direct
Dedication	Professional
Constructive Evals	Allows mistakes
Patience	Motivating
Knows Trainee	Dedication
Attentive	SME
Understanding	Demanding
Tact	Adaptive

2.6 Ask the following questions:

Q. Was it difficult to reach consensus? If so, why?

Q. How did the group reach its decision about which characteristics to include?

Q. How are decisions made by the training teams in the OJT environment?

3. **Alternative Activity**

3.1 Divide the participants into small groups. (Note: The group size can be from two to four individuals.)

3.2 Give each group two pieces of chart paper and markers.



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Topic #6: Qualities of Effective OJTIs

3.3 Provide the following instructions:

- Using drawings (stick figures are OK!), symbols, expressions, phrases, etc., create a visual image portraying the characteristics of ineffective OJTIs on one sheet of chart paper.
- On the second sheet of chart paper, create a visual image portraying the characteristics of effective OJTIs.

3.4 Allow 10 minutes for the groups to produce their visual images.

3.5 Have each group present its visuals and explain the significance of the images.

3.6 Point out the similarities among the images.

3.7 Ask the following question:

Q. What are the critical characteristics of effective OJTIs?
--

Use follow-up questions to ensure that the characteristics presented include ATC technical competence, human relations skills, and training skills. For example: What other qualities do OJTIs need besides technical competence? What types of people skills do OJTIs need?

Record the characteristics on chart paper. Hang the chart paper around the training room.

4. **Summary**

4.1 Review the key characteristics identified by the group.

4.2 Note the relationship between these characteristics and the subsequent topics to be presented in this workshop.

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Topic #6: Qualities of Effective OJTs

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Topic #7: Quality Teams

Purpose

The purpose of this topic is to identify the characteristics of high-functioning teams, and examine how these characteristics relate to the OJT training team.

Goals

- To examine characteristics of high-functioning teams.
- To identify which characteristics of high-functioning teams are present in the OJT training team, which are absent, and why.

Approximate Time

1 1/2 Hours

Materials

- ✓ Materials for Skunk Works.
 - Scissors (1 pair per group)
 - Paper (4 sheets per group)
 - Paper Clips (4 per group)
 - Rolls of tape (1 per group)
 - Rubber Bands (1 per group)
 - Colored markers (4 per group, red, blue, green, and black)
 - Index cards (3 per group)
- ✓ Chart paper and easel
- ✓ Markers
- ✓ Masking tape

Instructions



1. **Introduction**

1.1 Introduce this topic by asking the following discussion question: **Slide 40.**

Q. How does the overall performance of the training team impact the trainee during OJT?

Some possible responses are:

- *If there is conflict among team members, the trainee could get caught in the middle.*
- *If communication is poor, critical information about training progress and needs may not be shared.*
- *The trainee is more likely to achieve success if everyone on the team is committed to the success.*

1.2 Tell the participants that now they will participate in an activity that will allow them to identify characteristics of high-functioning teams, and examine if these characteristics are present in OJT training teams.

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Topic #7: Quality Teams

2. **Activity: Skunk Works**

2.1 Divide the participants into teams of 4 to 8 members, depending on the number of participants.

2.2 Distribute the following materials to each group:

- One pair of scissors
- Four sheets of paper
- Four paper clips
- One roll of masking tape
- One rubber band
- One set of colored markers
- Three index cards

2.3 Present the following to the groups for this activity:

Instructions: Working as a team, you will:

- Design a vehicle from the materials given that must travel the length of the room and hit a target. When designing your vehicle, remember...
 - ✓ You may use only the materials provided.
 - ✓ You do not need to use all of the materials.
 - ✓ The flying vehicle must not include the scissors or markers.
- Name your vehicle and develop a presentation of why your team's vehicle should win the design competition. The criteria are as follows:
 - ✓ **Functionality:** Vehicle must actually fly.
 - ✓ **Uniqueness:** Most unique design, name and presentation as judged by instructors.
 - ✓ **Accuracy:** Most accurate at hitting the target.

2.4 Tell the teams they will have 30 minutes to design and construct their vehicles.

2.5 Ask the participants if there are any questions about how to complete this activity.

2.6 After 30 minutes, have each team present its vehicle, explain why it should win, and check it for accuracy to the target.

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Topic #7: Quality Teams

3. **Debrief: High-Functioning Teams**

3.1 Briefly review the following characteristics of high-functioning teams:

- **Participative Leadership**: Giving team members more input and responsibility in decision-making processes. All team members help set training goals and develop strategies for achieving these goals. Team members determine how to evaluate goals, and together they review progress and results.
- **Shared Responsibility**: Establishing an environment in which all team members feel equally responsible for training outcomes. OJTIS, supervisors, and the trainee all have a responsibility for reaching training goals.
- **Commitment to Team Purpose**: Having a sense of common purpose about why the team exists and the functions it services, and sharing a commitment to achieving that purpose. Team members keep this purpose in the forefront in their decision making and in evaluating team progress.
- **Open Communication**: Creating a climate of trust and open, honest communication. Team members talk openly with one another and are open with each other to giving and getting feedback.
- **Resources and Talents**: Utilizing the resources and talents of the team members. High-functioning teams make good use of their creative talent, openly share skills and knowledge, and learn from one another.
- **Self-Evaluation**: Periodically looking at what the team is doing and how it is doing it. Effective teams stop and look at how well they are doing and what, if anything, may be hindering the training process.

Note: You may want to write the characteristics (underlined words) on chart paper to use during the review.

3.2 After the participants have completed this assessment, ask the group the following questions:

Q. What were the strengths of your team based on this assessment?

Q. What might you do differently as a team next time based on this assessment?

Q. Of these functions, where do OJT training teams generally fall short?

Q. What actions can OJTIs and supervisors take to improve the functioning of OJT training teams or to reinforce characteristics that are already high?

3.3 Tell the participants that they can use this assessment in the ATC environment to evaluate the effectiveness of their training teams. Refer to participant manual pages 23 through 25 and discuss team roles and responsibilities for OJT.



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Topic #7: Quality Teams

4. **Summary**

- 4.1 Summarize this activity by explaining that like the teams in this activity, the training team's goal is to protect the trainee from failure by developing a well thought-out plan that is logical and innovative, involves some risk taking, and makes best use of all available resources.
- 4.2 Ask the participants if they have any questions or comments about high-functioning training teams.

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Topic #8: Training & Readiness Requirements

Purpose

The purpose of this topic is to introduce the requirements of the Air Traffic Control Training & Readiness Manual.

Goals

- To explain the structure of a T&R Event.
- To show the requirements of T&R as it relates to position qualifications.

Approximate Time

1/2 Hour

Materials

- ✓ None

Instructions



1. Introduction

1.1 Introduce this topic by showing the group an example of a T&R event: **Slides 41-44.**

ACAD-0522 is an example of a T&R event from NAVMC 3500.94. Once we have included the elements that are required by the order, we add similar items that are required by the facility manual.



1.2 Show the group the list of events and how they relate to position qualifications. **Slide 44.**

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Topic #8: Training & Readiness Requirements