Jhpiego Corporation is an international, non-profit health organization affiliated with The Johns Hopkins University. For more than 36 years, Jhpiego has empowered front-line health workers by designing and implementing effective, low-cost, hands-on solutions to strengthen the delivery of health care services for women and their families. By putting evidence-based health innovations into everyday practice, Jhpiego works to break down barriers to high-quality health care for the world’s most vulnerable populations.

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INSTRUCTIONAL DESIGN SYLLABUS

INTRODUCTION
As part of Jhpiego’s recommended plan for developing national capacity in training, instructional design skills are needed to ensure that training and continued professional development result in the desired outcomes. As part of Jhpiego’s work in faculty development and strengthening pre-service education, basic instructional design skills are needed for faculty and teachers.

SYLLABUS
Course Description: This course provides practical experience and feedback in key instructional design skills. The emphasis is on practical experience rather than theory. This course is planned for seven days, including time for content development.

Facilitator Selection Criteria: An experienced Instructional Designer or Training Expert should facilitate this course.

Participant Selection Criteria: In-service trainers, pre-service faculty or classroom instructors who are interested in creating more engaging and effective learning experiences.

Course Goal: Create more effective, engaging learning experiences for participants in your courses.

LEARNING OBJECTIVES
After completing this instructional design course, you will be able to apply three key elements (analysis, design and development) of the instructional design model to improve learning and actively engage participants in your courses.

After this course, you will be able to:

Determine Course Context
1. Describe the general context of the desired technical content course (intended learners, the expectations of their jobs).
2. In simulation, conduct a basic audience analysis, and identify relevant:
   ▪ Learner characteristics
   ▪ Training context/workplace context
   ▪ Learner experience (years on the job, general competencies, reading/writing level and language used, use of computers and other technology)

Write Learning Objectives
1. Using identified learning needs, write learning objectives that are specific, measurable, and attainable and include the desired performance, conditions of performance and the criteria for assessing the performance.
2. Given a sample from a skills-course, sequence the learning objectives consistent with the guidance presented in the reference manual.

3. For a given set of learning objectives, identify the prerequisite skills and knowledge that you will not teach but which participants must have mastered to be successful in reaching the objectives.

Select and Develop Assessments

1. Based on identified learning needs, describe options for assessment methods consistent with the guidance provided in the reference manual, including the appropriateness, advantages and limitations of each.

2. Presented with a range of samples, critique and improve questions consistent with the criteria provided in the reference manual.

3. Given learning objectives, create test items to measure achievement of the learning objectives.

4. Given learning objectives, construct checklists to measure competency of communication, psychomotor or clinical decision-making skills.

Select and Develop Learning Activities

1. Given specific learning objectives, select and develop realistic and relevant learning activities and exercises that engage learners in purposeful learning and help them:
   - Master the learning objectives
   - Successfully complete the learning assessments
   - Apply what they’ve learned on the job

2. Using identified learning activities, organize the learning activities to support increasing mastery of objectives.

3. Based on the identified learning activities, select engaging and appropriate teaching methods to help learners accomplish the learning objectives.

4. In a case study, distinguish content that directly supports successful completion of the learning activities from content that is not relevant.

5. Using identified learning objectives, create session plans that address the nine events of instruction.

6. Based on the identified course/learning context, learner characteristics and identified learning activities, select appropriate mode(s) for delivery of instruction.

Evaluate Courses

1. Based on draft or existing materials, describe formative and summative evaluation approaches that will identify if the learning goals will be met by the draft course design.

2. Create a data summary chart and identify where to revise instruction.
TEACHING/LEARNING METHODS

- Interactive presentations
- Discussions
- Practice and feedback

LEARNING MATERIALS/REFERENCES

Instructional Design Manual, Jhpiego 1997
Learning for Performance, CAPACITY Project, 2007

METHODS OF ASSESSMENT

Final Knowledge Assessment
HOW TO USE COURSE MATERIALS

Your Learner’s Guide contains these common types of materials:

**Examples**: These are examples that are used to explain ideas or demonstrate concepts. Use them to guide you in creating similar types of materials on your own.

**Templates**: These are forms that provide a standard structure or pattern to guide you in creating learning activities or assessment methods. Use them to create desired items.

**Handouts**: These provide additional content on specific topics, use them for additional information.

**Exercises**: These are used to give you practice and feedback in specific skills, use them to develop your skills.
## INSTRUCTIONAL DESIGN COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
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</thead>
<tbody>
<tr>
<td><strong>A.M. (4 hours)</strong>&lt;br&gt;Opening and Introduction: Welcome&lt;br&gt;Introductions&lt;br&gt;Identify learning needs&lt;br&gt;Course Overview (goals, objectives, schedule)&lt;br&gt;Review course materials&lt;br&gt;Identify learning needs&lt;br&gt;Course Design&lt;br&gt;Instructional design models&lt;br&gt;Identifying learning needs</td>
<td><strong>A.M. (4 hours)</strong>&lt;br&gt;Agenda and opening activity&lt;br&gt;Objective Continued&lt;br&gt;Sequencing objectives&lt;br&gt;Write objectives&lt;br&gt;Prerequisite Skills&lt;br&gt;Assessment Methods, Part 1&lt;br&gt;Principles of Assessment</td>
<td><strong>A.M. (4 hours)</strong>&lt;br&gt;Agenda and opening activity&lt;br&gt;Review a sample of improved objectives&lt;br&gt;Learning Activities Part I continued:&lt;br&gt;Select teaching methods&lt;br&gt;Organize Activities&lt;br&gt;Assessment Part II&lt;br&gt;Item characteristics</td>
<td><strong>A.M. (4 hours)</strong>&lt;br&gt;Agenda and opening activity&lt;br&gt;Review of previous day’s work&lt;br&gt;Assessment Methods, Part II continued&lt;br&gt;Assessing types of skills&lt;br&gt;Checklist variations&lt;br&gt;Create checklists</td>
<td><strong>A.M. (4 hours)</strong>&lt;br&gt;Agenda and opening activity&lt;br&gt;Review a sample improved questions from previous day&lt;br&gt;Learning Activities Part III: Nine Events of Instruction&lt;br&gt;Session plan development</td>
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<tr>
<td>Lunch</td>
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<tr>
<td><strong>P.M. (3 hours)</strong>&lt;br&gt;Course Design continued&lt;br&gt;Design considerations&lt;br&gt;Audience&lt;br&gt;Initial Design&lt;br&gt;Objectives&lt;br&gt;Purpose and importance&lt;br&gt;Key components&lt;br&gt;Critiquing objectives&lt;br&gt;End of the day evaluation&lt;br&gt;Review of the day’s activities</td>
<td><strong>P.M. (3 hours)</strong>&lt;br&gt;Assessment Methods, Part 1&lt;br&gt;Method selection&lt;br&gt;Congruence with objectives&lt;br&gt;Learning Activities Part I: Mastery learning&lt;br&gt;Consistency with objectives and assessment methods&lt;br&gt;Select learning activities&lt;br&gt;End of the day evaluation&lt;br&gt;Review of the day’s activities</td>
<td><strong>P.M. (3 hours)</strong>&lt;br&gt;Assessment Part II continued&lt;br&gt;Critique questions&lt;br&gt;Item development&lt;br&gt;Review of key points&lt;br&gt;End of the day evaluation&lt;br&gt;Review of the day’s activities</td>
<td><strong>P.M. (3 hours)</strong>&lt;br&gt;Learning Activities Part II: Design and create learning activities&lt;br&gt;Select Relevant Content&lt;br&gt;End of the day evaluation&lt;br&gt;Review of the day’s activities</td>
<td><strong>P.M. (3 hours)</strong>&lt;br&gt;Session planning organization continues&lt;br&gt;Review of key points&lt;br&gt;End of the day evaluation&lt;br&gt;Review of the day’s activities</td>
</tr>
<tr>
<td><strong>Assignment:</strong> Learning for Performance, steps 1–6&lt;br&gt;ID Manual: Chapter 3, 5 and 7</td>
<td><strong>Assignment:</strong> Trainer reviews objectives and provides individual written feedback&lt;br&gt;ID Manual: Chapter 8</td>
<td><strong>Assignment:</strong> Learning for Performance, Steps 7–8</td>
<td><strong>Assignment:</strong> Trainer reviews questions and provides individual written feedback&lt;br&gt;ID Manual: Chapter 9, Learning for Performance, Step 10</td>
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<tr>
<td>Day 6</td>
<td>Day 7</td>
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<tr>
<td><strong>A.M. (4 hours)</strong>&lt;br&gt;A. Agenda and opening activity&lt;br&gt;M. Materials review&lt;br&gt;R. Review of developed materials&lt;br&gt;M. Mode of Instruction&lt;br&gt;D. Design considerations&lt;br&gt;A. Audience</td>
<td><strong>A.M. (4 hours)</strong>&lt;br&gt;A. Agenda and opening activity&lt;br&gt;M. Materials development</td>
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<tr>
<td><strong>Lunch</strong></td>
<td><strong>Lunch</strong></td>
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<tr>
<td><strong>P.M. (3 hours)</strong>&lt;br&gt;E. Evaluation&lt;br&gt;Formative and summative evaluation&lt;br&gt;Final knowledge assessment&lt;br&gt;End of the day evaluation&lt;br&gt;Review of the day’s activities</td>
<td><strong>Materials Development</strong>&lt;br&gt;Action Planning&lt;br&gt;Course Evaluation&lt;br&gt;Closing</td>
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<tr>
<td><strong>Materials development</strong></td>
<td><strong>Materials development</strong></td>
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</tbody>
</table>
### SELF-ASSESSMENT

**Instructions:** Please indicate your opinion of your expertise using the following rate scale.

<table>
<thead>
<tr>
<th>TASK</th>
<th>PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Conduct a performance assessment or baseline needs assessment.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2. Write learning objectives that respond to an identified learning need.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3. Sequence the learning objectives.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4. Describe options for assessment methods, including the appropriateness, advantages and limitations.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5. Create test items to measure achievement of the learning objectives.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6. Construct checklists to measure proficiency of communication, psychomotor or clinical decision-making skills.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7. Design realistic and relevant learning activities and exercises.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>8. Organize the learning activities to support learner’s mastery of objectives.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>9. Select appropriate mode(s) for delivery of instruction.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>10. Develop session or lesson plans.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>11. Evaluate learning intervention outcomes.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
COURSE DESIGN

SUMMARY OF THE SESSION
During this session, you will review: 1) How to review the context when designing a course; 2) How to analyze your learners to identify learner characteristics, experience and workplace context; and 3) How to use this analysis to identify possible learning solutions, including possible formats.

LEARNING OBJECTIVES FOR THE SESSION
At the end of the session, participants will be able to:

1. Describe the general context of the desired technical content course (intended learners, the expectations of their jobs).

2. In simulation, conduct a basic audience analysis, and identify relevant:
   - Learner characteristics
   - Training context/workplace context
   - Learner experience (years on the job, general competencies, reading/writing level and language used, use of computers and other technology)
Example: Design Plan Document—Physical Examination

RATIONALE
Why does this course matter? Why is it needed?
A key skill in HIV and other infectious disease management is the ability to perform a physical examination and make an appropriate diagnosis. While taught during specific educational programs, typically these skills are weak.

NEEDS ASSESSMENT FINDINGS
What does the needs assessment show about learning needs? What is the learning need?
Using HIV performance standards to assess workplace performance, physical examination is a weak area more than 60% of the time. The needs assessment also identified that feedback on physical examination skills are weak, but other job performance factors are not a problem.

CONTEXT
What is the context around this course? Which mode(s) of delivery is being considered?
Since the content of physical examination does not change often, and there is a need to reach great numbers of providers without removing them from the workplace, the use of a computer-based mode of delivery is a top choice. This will be combined with an on-the-job approach for practice and feedback.

LEARNER CHARACTERISTICS/AUDIENCE
What are learner characteristics? Computer literacy? Professional experience and place?
Learners will be mostly physicians, clinical officers or midwives working in public sector facilities. Most of the learners may have been in practice for some time. Literacy will not be a problem, but translation will be needed for francophone and lusophone countries. Computer literacy and access may be a barrier for some of them. Some considerations include: refer to the course as a “refresher,” since experienced professionals may not feel that it is needed, make sure that computer access and some basic help can be provided in the workplace—an orientation session might be needed to ensure they are comfortable using the computer. Several mentors or on-site trainers will be needed to provide on-the-job practice and feedback—and preparing and supporting their involvement must be addressed.

WORKPLACE CHARACTERISTICS
What is the description of the workplace?
The workplace will be busy, understaffed and under-resourced. Time and incentives will need to be provided to make sure the learners have time set aside to go through computer-sessions, and a structured plan for completing the on-the-job portion. Any additional supplies will need to be provided.
DRAFT COURSE GOALS

List draft ideas of the course goals.

- Motivate the learners regarding the importance and usefulness of a well-done physical examination.
- Ensure that learners can complete a physical examination and identify common complications or illnesses related to HIV or ARV treatment.
Template: Course Design Plan

RATIONALE
Why does this course matter? Why is it needed?

NEEDS ASSESSMENT FINDINGS
What does the needs assessment show about learning needs? What is the learning need? How does one know it is a learning need?

CONTEXT
What is the context around this course? Which mode(s) of delivery is being considered?

LEARNER CHARACTERISTICS/AUDIENCE
What are learner characteristics? Background? Computer literacy? Professional experience and place?

WORKPLACE CHARACTERISTICS
What is the description of the workplace?

DRAFT COURSE GOALS
List draft ideas of the course goals.
WRITING OBJECTIVES

SUMMARY OF THE SESSION
During this session, you will review: 1) How to write learning objectives; 2) Strategies for sequencing objectives; and 3) Identifying knowledge and skills needed that you will not teach, but are needed for learners to master your objectives.

LEARNING OBJECTIVES FOR THE SESSION
At the end of the session, participants will be able to:

1. Using identified learning needs, write learning objectives that are specific, measurable and attainable, and include the desired conditions of performance, the desired performance and the criteria for assessing the performance.

2. Given a sample from a skills-course, sequence the learning objectives consistent with the guidance presented in the reference manual.

3. For a given set of learning objectives, identify the prerequisite skills and knowledge that you will not teach, but which participants must have mastered to be successful in reaching the objectives.
Exercise: Is It Acceptable?

OBJECTIVES
The purpose of this activity is to:

- Practice developing learning objectives that specify the following components: an observable/measurable performance, the conditions of performance and the criteria or standards which will be used to assess the performance.

RESOURCES/MATERIALS NEEDED
- Exercise: Is it Acceptable?
- Pens/pencils, flipcharts or blackboard

INSTRUCTIONS
- Using the table below, review the list of proposed learning objectives for a variety of courses. Indicate which of the three criteria (observable/measurable performance, conditions of performance, criteria) are met for each learning objective. Identify which learning objectives are acceptable and meet all of the criteria.

- Which objectives are unacceptable and why? Work together to re-write unacceptable objectives so that they meet all three criteria.

- Choose a team leader to present the re-written list of learning objectives.
<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>Observable/ measurable performance</th>
<th>Conditions of performance</th>
<th>Criteria</th>
<th>Acceptable</th>
<th>New Learning Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Talk to women about cervical cancer prevention.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>During at least one client group session in clinic, talk to women about ways to prevent cervical cancer according to facility/practice standards pertaining to cervical risk factors and prevention. During a role play that simulates counseling a patient, demonstrate the ability to talk to a woman about cervical cancer prevention using facility/practice standards or relevant clinical checklist. On a written test, answer at least 85% of questions in the section pertaining to Cervical Cancer Prevention.</td>
</tr>
<tr>
<td>2. Explain who should have cervical cancer screening and how VIA (visual inspection of the cervix with acetic acid) screens for cervical cancer.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Based on the clinical histories described, decide correctly in at least 4 out of 5 case studies women who should have cervical cancer screening. During supervised clinical practice, demonstrate the ability to choose clients who should have cervical cancer screening using facility/practice standards or relevant clinical checklist. On a written test, answer at least 85% of questions in the section pertaining to VIA screening for cervical cancer.</td>
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<tr>
<td>3. Perform a pelvic examination.</td>
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<td>4. Perform active management of the third stage of labor.</td>
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<tr>
<td>5. Provide family planning method-specific counseling to a client.</td>
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<tr>
<td>Learning Objective (The learner will be able to...)</td>
<td>Observable/ measurable performance</td>
<td>Conditions of performance</td>
<td>Criteria</td>
<td>Acceptable</td>
<td>New Learning Objective</td>
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<tr>
<td>6. Follow infection prevent practices.</td>
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<td>7. Plot the partograph and know when to refer the woman.</td>
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<tr>
<td>8. Take a patient history.</td>
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</tbody>
</table>
Example: Sequencing Objectives

*From a Fundamentals of Midwifery Syllabus*

**MODULE OBJECTIVES**

<table>
<thead>
<tr>
<th>SUGGESTED SEQUENCE KEY</th>
</tr>
</thead>
<tbody>
<tr>
<td>By the completion of this module, students will be able to:</td>
</tr>
</tbody>
</table>

1. **Review of anatomy and physiology:** The course will cover structure and function of cells, organs of the reproductive health system.

2. **Introduction to antenatal care including:** Antenatal assessment (history and physical examination) and care provision (including birth planning, preventive measures, and health messages and counseling), common discomforts in pregnancy and special needs, including malaria, anemia, HIV, and gender-based violence.

3. **Taking an antenatal history:** Personal history, obstetric history current and past, menstrual history, minor disorder of pregnancy, danger sign of pregnancy, labor and postpartum, ever used any family planning methods.

4. **Perform physical examination of pregnant woman.**

5. **Performing postnatal examination including:** Introduction to postpartum care, postpartum assessment (history and physical examination) and care provision, including preventive measures and health messages and counseling.

6. **Introduction to newborn care, basic care of the newborn, including warmth, early, exclusive breastfeeding, immunization, newborn assessment, and common concerns and special needs in the newborn period.**
### Example: Instructional Planning Worksheet

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVE(S)</th>
<th>LEARNING ASSESSMENT METHOD(S)</th>
<th>TRAINING/LEARNING ACTIVITY(IES)</th>
<th>REFERENCES/ RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Given a sample from a skills-course, sequence the learning objectives consistent with the guidance provided in Learning for Performance, pg. 38.</td>
<td>Arrange learning objectives in an appropriate sequence.</td>
<td>Provide a list of incorrectly ordered objectives for learners to arrange in the proper order (individuals or small groups). Debrief.</td>
<td>Exercise: learning objectives misordered; needs answer key with correct order and rationale Learning for Performance, step 6, pg. 38</td>
</tr>
<tr>
<td>Given a range of client case studies, identify the appropriate family planning counseling tasks for the four different types of clients, completing all the tasks on the checklist.</td>
<td>In a matching exercise, correctly identifies the appropriate family planning counseling tasks for each type of counseling client presented in a case study.</td>
<td>Provide handout on different types of counseling clients and related family planning tasks; discuss with the group. In case studies, identifies appropriate counseling tasks based on different types of clients.</td>
<td>Handout: Different types of counseling clients Case studies for different types of counseling clients</td>
</tr>
</tbody>
</table>
## Template: Instructional Planning Worksheet

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVE(S)</th>
<th>LEARNING ASSESSMENT METHOD(S)</th>
<th>TRAINING/LEARNING ACTIVITY(IES)</th>
<th>REFERENCES/RESOURCES</th>
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</table>
ASSESSMENT

SUMMARY OF THE SESSION
During this session, you will review: 1) How to select methods to assess your objectives; 2) How to critique and write questions to assess knowledge; and 3) How to create checklists to measure skills.

LEARNING OBJECTIVES FOR THE SESSION
At the end of the session, participants will be able to:

1. Based on identified learning needs, describe options for assessment methods consistent with the guidance provided in the reference manual, including the appropriateness, advantages and limitations of each.

2. Presented with a range of samples, critique and improve questions consistent with the criteria provided in the reference manual.

3. Given learning objectives, create test items to measure achievement of the learning objectives.

4. Given learning objectives, construct checklists to measure competency of communication, psychomotor or clinical decision-making skills.
Example: Instructional Planning Worksheet—Assessment Item Congruence

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVE(S)</th>
<th>LEARNING ASSESSMENT METHOD(S)</th>
<th>TRAINING/LEARNING ACTIVITY(IES)</th>
<th>REFERENCES/ RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VAGUE OBJECTIVE</strong></td>
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</tr>
<tr>
<td>Talk to women about cervical cancer prevention.</td>
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<tr>
<td><strong>ACCEPTABLE OBJECTIVE</strong></td>
<td>Direct observation: in a role play, provides counseling consistent with the facility standards for cervical cancer prevention counseling and education.</td>
<td>Using a role play demonstrate cervical cancer prevention counseling consistent with the facility standards. In trios, learners practice counseling—one as the counselor, one as client, one as observer providing feedback. Rotate every 10 minutes.</td>
<td>Cervical cancer facility standards</td>
</tr>
<tr>
<td>During at least one client group session in clinic, counsel women about ways to prevent cervical cancer according to facility/practice standards pertaining to cervical risk factors and prevention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During demonstration on an anatomical model, perform a pelvic examination completing all critical tasks on the clinical checklist.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In a clinical simulation, correctly identify the appropriate management for a given partograph that crosses an alert line.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From the signs and symptoms described, decide correctly in at least 4 out of 5 case studies if you can treat the woman or if she needs to be referred to a higher service delivery level.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In supervised clinical practice, plot the partograph for 3 women in labor according to the criteria outlined in the sample.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Handout: Writing Test Items

GENERAL
- Construct items on important content; avoid trivial content or simple recall.
- Keep content independent of other test items.
- Avoid trick or opinion-based items.
- Minimize amount of reading in each item.
- Use correct grammar, punctuation, etc.

MULTIPLE CHOICE

Stem Construction
- Provide a complete statement.
- Include only relevant information; avoid extra information.
- Contain as much of the item as possible in the stem.
- Keep stems as short as possible.
- Ask for the correct, not “wrong” answer.
- Word the stem positively, avoid negatives; if you use words like NOT or EXCEPT, they should be bold and capitalized.

Distractors
- Consider the number of distracters (three choices total is sufficient based on the evidence).
- Make sure only one answer is correct.
- Avoid long options.
- Keep options similar length.
- Vary position of correct responses.
- Keep options grammatically consistent with the stem.
- Write incorrect options to be plausible but clearly incorrect.
- Write distractors to be similar to the correct answer in terms of grammar, length, and complexity.
- Avoid “none of the above” or “all of the above”; avoid negatives.
- Place options in logical order (e.g., numerical, chronological).
- Avoid “K Type” items (A only, A+B but never C on Sunday). (Test of cognitive or reading ability rather than knowledge of item content.)
- Avoid absolute terms such as “always”, “never”, “all”, or “none.”
- Avoid imprecise terms such as “seldom”, “rarely”, “occasionally”, “sometimes”, “few”, or “many.”
- Avoid cues such as “may”, “could” or “can.”
- Link options to each other (e.g., all diagnoses, tests, treatments).
- Use technical jargon from other parts of the course.
- Write sensible but trivial answer.
- Write partially correct answers.
- Write straight recall answer that is unrelated to problem in the stem.

TRUE/FALSE
- Statement should be unambiguously true or false.
- Avoid specific determiners, i.e., all, never, none.
- Avoid negatives when possible.
- Test one proposition at a time.
- Do NOT test recall of straight quotes.

MATCHING
- Structure both lists similarly.
- Provide clear directions.
- Uneven lists
- More than four, less than 10 options
- Consider use with case studies.

---

**Example: Checklist for Communication Skills**

**CHECKLIST FOR USING THE VOLUNTARY COUNSELING AND TESTING PROTOCOL**

Place a “✓” in case box if step/task is performed **satisfactorily**, an “X” if it is **not** performed satisfactorily, or N/O if not observed.

**Satisfactory**: Performs the step or task according to the standard procedure or guidelines

**Unsatisfactory**: Unable to perform the step or task according to the standard procedure or guidelines

**Not Observed**: Step, task, or skill not performed by participant during evaluation by trainer

**Not Applicable**: Step, task or skill not required to be performed by participant during evaluation

<table>
<thead>
<tr>
<th>Key Counselor Tasks</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Follow the protocol, selecting questions appropriate to the client’s situation.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>2. Maintain the focus on risk reduction.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>3. Address the client’s immediate questions or concerns.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>4. Use active listening and open-ended questioning.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>5. Summarize the client’s story when appropriate.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>6. Address conflict between the client’s thoughts and behaviors when necessary.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>7. Maintain eye contact.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>8. Use language the client understands.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>9. Congratulate the client on positive actions s/he has taken.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>10. Clarify the client’s understanding when appropriate.</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>11. Show empathy.</td>
<td>☐ ☐ ☐</td>
</tr>
</tbody>
</table>
Example: Role Play for Assessment

FAMILY PLANNING METHODS COUNSELING

Participant # _________________________________________ Date ___________________________

<table>
<thead>
<tr>
<th>TASK</th>
<th>SAFE/EFFECTIVE COMPLETION OF TASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Note: Do not need to be completed in exactly this order)</td>
<td></td>
</tr>
<tr>
<td>1. Uses appropriate communication skills: speaks clearly and</td>
<td>Yes 0</td>
</tr>
<tr>
<td>simply, encourages questions and assesses understanding</td>
<td></td>
</tr>
<tr>
<td>when needed.</td>
<td></td>
</tr>
<tr>
<td>2. Is professional: Greets the woman/client politely,</td>
<td>Yes 0</td>
</tr>
<tr>
<td>maintains/ensures confidentiality, and speaks politely to the</td>
<td></td>
</tr>
<tr>
<td>woman.</td>
<td></td>
</tr>
<tr>
<td>3. Determines if the woman has a method in mind or no method</td>
<td>Yes 0</td>
</tr>
<tr>
<td>in mind.</td>
<td></td>
</tr>
<tr>
<td>4. Determines woman’s reproductive goals and other desired</td>
<td>Yes 0</td>
</tr>
<tr>
<td>method attributes.</td>
<td></td>
</tr>
<tr>
<td>5. Assesses woman’s perception of need for STI protection,</td>
<td>Yes 0</td>
</tr>
<tr>
<td>and addresses appropriately.</td>
<td></td>
</tr>
<tr>
<td>6. Assesses woman’s baseline understanding of family planning</td>
<td>Yes 0</td>
</tr>
<tr>
<td>method of interest or methods appropriate based on</td>
<td></td>
</tr>
<tr>
<td>reproductive goals.</td>
<td></td>
</tr>
<tr>
<td>7. Counsels based on reproductive goals or method of interest</td>
<td>Yes 0</td>
</tr>
<tr>
<td>does not review methods that are not of interest or not in</td>
<td></td>
</tr>
<tr>
<td>line with the woman’s desired spacing and method attributes.</td>
<td></td>
</tr>
<tr>
<td>Using available visual aids, provides general information</td>
<td></td>
</tr>
<tr>
<td>about a selected contraceptive method including:</td>
<td></td>
</tr>
<tr>
<td>8. How it prevents pregnancy and its effectiveness</td>
<td>Yes 0</td>
</tr>
<tr>
<td>9. How it is used</td>
<td>Yes 0</td>
</tr>
<tr>
<td>10. Advantages, disadvantages and possible danger signs</td>
<td>Yes 0</td>
</tr>
<tr>
<td>associated with complications</td>
<td></td>
</tr>
</tbody>
</table>

Pass Score 8/10
Student Score ________

Pass  Fail

Comments/Remediation Plan: __________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Examiner Signature ____________________________
Resource List

- Contraceptive flip chart or other job aid for counseling (Counseling Desk Reference is preferred.)
- Condoms, OC, implant, IUD, etc. (wide range of sample methods)
- Markers
- Two chairs
- Table
- Woman to role play client

Examiner Instructions

- Ask participant to speak directly to woman role playing client.
- Ensure that participant does not have any unanswered questions about station before she or he begins.

Participant Instructions

- Interact directly with the woman who you are counseling.
- 15 minutes to complete station

Standardized Patient Instructions

- You are 25 years old.
- You are married.
- You do not desire another child for at least two years; effectiveness is the most important method attribute for you.
- You have had one baby delivered vaginally without complications one year ago.
- You are still breastfeeding.
- You have never had an STI and are not concerned about them.
- You are not currently using contraceptives, other than withdrawal.
- You are sexually active in a monogamous relationship with your husband.
Example Case Study: Management of Antenatal Complications

CASE STUDY
Ms. Smith, a 35-year-old G2P0010, is being seen by you today for a routine prenatal visit at 37 weeks' gestation. Her previous prenatal records contain the following pertinent findings:

Initial physical examination at first prenatal visit
- Gestation: 14 weeks
- Weight: 75 Kg
- Height: 160 CM
- BP: 110/70
- Urine: Trace glucose and proteinuria
- Reflexes: 2+
- Edema: None

Examination at 36 weeks' gestation
- Weight: 95 Kg
- BP: 120/82
- Urine: +1 proteinuria
- Reflexes: 2+
- Edema: Trace pitting

Examination today
- Weight: 97 Kg
- BP: 140/100
- Urine: +3 proteinuria
- Reflexes: 3+
- Edema: Generalized edema to hands, ankles and face
QUESTIONS
State the MOST LIKELY diagnosis as a result of these physical findings in the space below.

Which of the following questions of Ms. Smith are MOST important. (Select all that apply.)
1. Are you having Headaches?  
2. Are you having any pain in your abdomen?  
3. Are you having any blurred vision?  
4. Have you been eating lots of salt?  
5. Is your baby moving?

Which of the following NEXT steps is MOST appropriate? (Select only one.)
1. Refer immediately to obstetrician.  
2. Counsel and send home on low salt diet.  
3. Send to lab for further studies. Advise bed rest at home.

If Ms. Smith begins convulsing while in the clinic, which is your immediate action?
1. Refer immediately to obstetrician.  
2. Administer Magnesium Sulfate IM, _____mg.  
3. Call for help and start an IV line.
Example Case Study: Management of Antenatal Complications Answer Key

State the MOST LIKELY diagnosis as a result of these physical findings in the space below.

**Preeclampsia**

Which of the following questions of Ms. Smith are MOST important. (Select all that apply.)

1. Are you having Headaches?  
2. Are you having any pain in your abdomen?  
3. Are you having any blurred vision?  
4. Have you been eating lots of salt?  
5. Is your baby moving?

Which of the following NEXT steps is MOST appropriate? (Select only one.)

1. Refer immediately to obstetrician.  
2. Counsel and send home on low salt diet.  
3. Send to lab for further studies. Advise bed rest at home.

If Ms. Smith begins convulsing while in the clinic, which is your immediate action?

1. Refer immediately to obstetrician.  
2. Administer Magnesium Sulfate IM, _5_mg.  
3. Call for help and start an IV line.

Instructions for Participant

- Read the case study at the top of the page.
- Answer each of the questions, given the information that was provided in the case.

Pass Score = 9/11

Student Score = ______

Pass  Yes  No
# Checklist for Psychomotor Skills
## IUCD Insertion and Pelvic Exam OSCE Station

**Participant # ____________________________ Date __________________**

<table>
<thead>
<tr>
<th>TASK</th>
<th>SAFE/EFFECTIVE COMPLETION OF TASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Greets client with respect/introduces self.</td>
<td>1  0</td>
</tr>
<tr>
<td>2. Offers anticipatory guidance prior to insertion.</td>
<td>1  0</td>
</tr>
<tr>
<td>3. Washes hands to standard.</td>
<td>1  0</td>
</tr>
<tr>
<td>4. Explains steps needed for immediate preparation of woman (empty bladder, cleanse genitals, comfortable positioning, etc.).</td>
<td>1  0</td>
</tr>
<tr>
<td>5. Performs bimanual pelvic examination:</td>
<td>1  0</td>
</tr>
<tr>
<td>- Determines size, shape and position of the uterus.</td>
<td></td>
</tr>
<tr>
<td>- Checks for enlargement or tenderness of the adnexa and cervical motion tenderness.</td>
<td></td>
</tr>
<tr>
<td>- Checks for any uterine abnormalities that would interfere with the IUCD.</td>
<td></td>
</tr>
<tr>
<td>6. Inserts speculum and visualizes cervix:</td>
<td>1  0</td>
</tr>
<tr>
<td>- Looks for any abnormal discharge.</td>
<td></td>
</tr>
<tr>
<td>- Looks for any ulcers, lesions or sores.</td>
<td></td>
</tr>
<tr>
<td>- Looks for any cervical stenosis or other abnormalities.</td>
<td></td>
</tr>
<tr>
<td>7. Gently grasps cervix with tenaculum.</td>
<td>1  0</td>
</tr>
<tr>
<td>8. Determines depth of uterus and sets depth gauge on IUCD appropriately.</td>
<td>1  0</td>
</tr>
<tr>
<td>9. Appropriately inserts IUCD.</td>
<td>1  0</td>
</tr>
<tr>
<td>10. Performs post-insertion infection prevention: places equipment in decontamination solution, disposes of waste appropriately, washes hands.</td>
<td>1  0</td>
</tr>
<tr>
<td>11. Able to state the purpose of decontamination (removes microorganisms, or makes instruments safer to handle).</td>
<td>1  0</td>
</tr>
<tr>
<td>12. Assess woman to ensure that she has tolerated insertion.</td>
<td>1  0</td>
</tr>
<tr>
<td>13. Provides post procedure education including:</td>
<td>1  0</td>
</tr>
<tr>
<td>- Possible side effects</td>
<td></td>
</tr>
<tr>
<td>- Warning signs (pains),</td>
<td></td>
</tr>
<tr>
<td>- String check,</td>
<td></td>
</tr>
<tr>
<td>- When to return to clinic (3–6 weeks)</td>
<td></td>
</tr>
</tbody>
</table>

Pass Score 10/13

Student Score _________

Pass  Fail
MEDICAL EQUIPMENT AND SUPPLIES LIST

- Pelvic model
- Speculum
- Tenaculum
- Uterine sound
- Sterile gloves
- Antiseptic solution
- Cotton balls
- IUD - Copper T 380A
- Light source
- Basin marked (0.05% bleach solution), biohazardous and regular waste containers

EXAMINER INSTRUCTIONS

- Ask participant to explicitly explain actions throughout simulation.
- Step #4: Ask participant to briefly explain what s/he will do to prepare woman for insertion.
- Step #5: Ask participant to explain what they are looking for during the bimanual exam.
- Step #6: Ask participant to explain what they are looking for during the speculum exam.
- Step #11: Ask participant the purpose of decontamination.
- Step #13: Ask participant to provide IUCD post-insertion education.

PARTICIPANT INSTRUCTIONS

- Treat the anatomic model as they would a woman. Simulate the presence of a woman seeking services.
- Consider that counseling has already been provided, and the woman has been identified as appropriate for IUCD insertion.
- The woman has been identified as “low personal risk” of an STI; so perform the pelvic exam immediately prior to insertion.
- Post-insertion education should also be provided.
- 15 minutes to complete station.
Exercise: Question Hall of Shame

INSTRUCTOR

Objectives
The purpose of this activity is to:
- Identify and correct poorly constructed test items.

Resources/Materials Needs
- Exercise: Question Hall of Shame
- Question Hall of Shame Key: see below
- Learning for Performance: pp. 54 and 55
- Basic Item Writing Principles II

Instructions
- Divide learners into small groups and ask each group to review the sample questions listed below. Alternatively, display the question as a PowerPoint and ask for or “choose” a volunteer to review one of the sample questions. Ask learners to critique and re-write the question using the principles described in the graphic presentation Basic Item Writing Principles II PowerPoint.

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>NOTES</th>
<th>SUGGESTED REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  A health care provider should monitor growth and development every time they meet an HIV exposed child.</td>
<td>Ambiguous</td>
<td>1. HIV-exposed children should be monitored on a regular basis for abnormalities of growth and development.</td>
</tr>
<tr>
<td>T/F</td>
<td>Ambiguous</td>
<td>T/F</td>
</tr>
<tr>
<td>2.  HIV/AIDS can be transmitted to infants through breast milk.</td>
<td>Trick Questions…</td>
<td>2. HIV can be transmitted to infants through breast milk.</td>
</tr>
<tr>
<td>T/F</td>
<td>HIV/AIDS not HIV/AIDS</td>
<td>T/F</td>
</tr>
<tr>
<td></td>
<td>The virus, not AIDS, is transmitted</td>
<td></td>
</tr>
</tbody>
</table>
### QUESTION
3. Studies have demonstrated that MC can decrease transmission of HIV to men and increase transmission of HIV to women.

**T/F**

### NOTES
Testing two propositions, one is true and one is false. How do you know what the student knows from this question?

### SUGGESTED REVISION
3. Studies have demonstrated that male circumcision can:
   a. Decrease transmission of HIV to men
   b. Decrease transmission of HIV to women
   c. Decrease transmission of HIV to men and women

### QUESTION
4. HIV I is NOT MORE prevalent than HIV II.

**T/F**

### NOTES
Has a negative:
- Not
- NOT with MORE makes item even MORE difficult

### SUGGESTED REVISION
4. HIV II is more prevalent than HIV I.

**T/F**

### QUESTION
5. It is recommended that a woman wait at least 2 years after a live birth before planning the next pregnancy. The benefits of a 2-year birth-to-pregnancy interval include all of the following, EXCEPT:
   a. It is LESS likely that the mother will be anemic during her next pregnancy.
   b. MORE likely that the newborn will survive to age 2 and beyond.
   c. IT IS LESS LIKELY THAT THE MOTHER WILL GET PRE-ECLAMPSIA IN HER NEXT PREGNANCY.

Assuming the woman’s last pregnancy was her first; then she will be less likely to be pre-eclamptic in the next pregnancy.

Better to ask for the “correct”, not the “wrong” answer.

Keep options grammatically consistent with the stem.

### SUGGESTED REVISION
5. It is recommended that a woman wait at least 2 years after a live birth before planning the next pregnancy. The benefits of a 2-year birth-to-pregnancy interval include all of the following, EXCEPT:
   a. It is LESS likely that the mother will be anemic during her next pregnancy.
   b. MORE likely that the newborn will survive to age 2 and beyond.
   c. IT IS LESS LIKELY THAT THE MOTHER WILL GET PRE-ECLAMPSIA IN HER NEXT PREGNANCY.

Assuming the woman’s last pregnancy was her first; then she will be less likely to be pre-eclamptic in the next pregnancy.

Better to ask for the “correct”, not the “wrong” answer.

Keep options grammatically consistent with the stem.

### QUESTION
6. Which of the following is essential for every pregnant woman?
   a. Two doses of tetanus toxoid injection one month apart
   b. Four antenatal check-ups
   c. Early registration
   d. Administration of 100 tablets of IFA
   e. All of the above

Avoid “none of the above” or “all of the above.”

Avoid use of abbreviations.

Ask for the correct answer.

### SUGGESTED REVISION
6. Which of the following is essential for every pregnant woman?
   a. Two doses of tetanus toxoid injection one month apart
   b. Four antenatal check-ups
   c. Early registration
   d. Administration of 100 tablets of IFA
   e. All of the above

Avoid “none of the above” or “all of the above.”

Avoid use of abbreviations.

Ask for the correct answer.
<table>
<thead>
<tr>
<th>QUESTION</th>
<th>NOTES</th>
<th>SUGGESTED REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. The Essential Drug List (EDL) in Afghanistan:</td>
<td>a. Is updated by WHO every year</td>
<td>Avoid “none of the above” or “all of the above.”</td>
</tr>
<tr>
<td></td>
<td>b. Contains all drugs recommended for BPHS and higher levels of care</td>
<td>Keep options similar in length.</td>
</tr>
<tr>
<td></td>
<td>c. Is used only by physicians</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. None of the above</td>
<td></td>
</tr>
<tr>
<td>8. According to the survey done in 2006, the current status of family</td>
<td>a. Long waiting lists, up to four (4) months</td>
<td>Avoid “K Type” items (A only, A + B but never C on Sunday): test cognitive or reading ability rather than knowledge of item content.</td>
</tr>
<tr>
<td>planning services was as follows:</td>
<td>b. Low priority among service providers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Shortages of supplies/equipment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Additional reproductive health education was given in the health facilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Good record keeping in most areas</td>
<td></td>
</tr>
<tr>
<td>Which of the above statements are correct:</td>
<td>a. 1, 2 and 3 only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. 3, 4 and 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. 2, 3 and 4 only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. All of the above</td>
<td></td>
</tr>
<tr>
<td>9. Which one of the following is not a misconception:</td>
<td>a. IUDs can migrate to the brain and cause infection</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. IUDs should only be offered to married women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. IUDs can be inserted immediately after delivery</td>
<td></td>
</tr>
<tr>
<td>10. HIV prevalence in Zambia is:</td>
<td>a. 17%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. 14.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. 20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. 12.3%</td>
<td></td>
</tr>
<tr>
<td>11. Which one of the following is a strategy for HIV prevention:</td>
<td>a. Use condoms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Keep your fingers crossed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Pray</td>
<td></td>
</tr>
</tbody>
</table>
12. In which of the following conditions **MUST** a woman be referred to an FRU?
   a. Eclampsia, obstructed labor, fetal distress, severe anemia, previous Caesarean section
   b. Hypertension, constipation, obstructed labor, bleeding/spotting, severe anemia
   c. Fever, constipation, breathlessness, nausea and vomiting, severe anemia
Handout: Guidelines for Validation of Examination

INSTRUCTIONS

1. Insert the template on the following page below each test question on your examination.

2. Distribute your examination without the key (identified correct answer) to a sample of subject matter experts (SME) in the area that the examination is intended to assess.

3. Ask each SME to:
   - Answer the question to her or his BEST ability.
   - Imagine the borderline or “just competent” service provider. What percent of these service providers does s/he believe would answer this question correctly?
   - Suggest any revisions that they believe would improve the question.

4. Calculate the individual and average SME scores. (Note: an Excel spreadsheet may be helpful.)
   - High SME scores on the examination, i.e., an average >85%, is evidence supporting its validity.
   - Low SME scores on the examination suggest a problem with the examination that MUST be corrected prior to its use.
   - If a few SMEs perform poorly on the exam, when others perform well, they may be considered outliers and removed from your analysis. In this case, do not use the responses of these “experts” in calculating the pass score.

5. Calculate the criterion-referenced pass scores by averaging the SME estimates of the percent of “just competent” service providers who would answer each question correctly. (Again, an Excel spreadsheet might be helpful.)

6. Consider suggested revisions made by SMEs. If MAJOR revisions are made to examination, this entire process should be repeated.
Example
1. Which one of the following is a clinical manifestation of diabetes mellitus:
   - Polyuria
   - Poor appetites
   - Increasing weight
   - Fever

<table>
<thead>
<tr>
<th>a. Correct Answer</th>
<th>b. Percentage of “Just Competent” trained service providers who you would expect to answer correctly</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

c. Suggested Revisions to Question: Remove word “one” from the stem. Revise option B to state Poor Appetite. Begin each response with capital letter.

Insert the following template below each question in your examination.

<table>
<thead>
<tr>
<th>a. Correct Answer</th>
<th>b. Percentage of “Just Competent” trained service providers who you would expect to answer correctly</th>
<th></th>
</tr>
</thead>
<tbody>
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<table>
<thead>
<tr>
<th>c. Suggested Revisions to Question:</th>
<th></th>
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</tbody>
</table>
Handout: Guidelines for Checklist Validation

INSTRUCTIONS
1. Insert the template on the following page below each step on your checklist.

2. Distribute the checklist validation tool to a sample of subject matter experts (SME) skilled in the area that the checklist is intended to assess.

3. Ask each SME to:
   - State whether they believe the task is an essential component of the skill being assessed.
   - Imagine the borderline or “just competent” service provider. What percent of these service providers does s/he believe would satisfactorily demonstrate this task?
   - Suggest any revisions that they believe would improve the statement of the task.

CONTENT VALIDITY
1. Calculate the percent of SMEs that believe that each task is an essential component of the target competency (an Excel spreadsheet may be helpful):
   - A high degree of consensus is evidence supporting the content validity of the checklist.
   - Inclusion of tasks with low levels of consensus (<85%) should be reconsidered. These skills may require revision or deletion from the checklist.
   - Consider suggested revisions provided by SMEs in section C of the template.

Criterion Referenced Pass Score
- Calculate average of SME estimates of “just competent” service providers who would satisfactorily demonstrate each task. For example, if SME #1, 2 and 3 provide estimates of task #1 on the checklist of 100%, 90% and 80% respectively; the average for that step would be 90%.

- Average the averages for all tasks on the checklist. Weight averages in proportion to score given for satisfactory completion of each skill. For example, if one skill is given 1 point for satisfactory completion and a second skill is given 2 points, count the SME average for the second item twice.

- Multiply the weighted average of all SME average estimates by the total possible number of points on the checklist to identify the criterion referenced pass score.

Pilot Checklist/Develop Acceptable Margin of Error
- Conduct checklist with multiple SMEs providing simultaneous measures of student performance. Ensure that all SMEs can observe and hear student and standardized patient if they are used.
Calculate average (mean) and variance (standard deviation) of all examiner scores. For a 95% margin of error, or certainty that score represents the student’s actual ability, multiply the standard deviation by +/- 2. Subtract the margin of error from the criterion referenced pass score to arrive at a final pass score (95% certainty that results are valid).

<table>
<thead>
<tr>
<th>a. Skill is an essential component of Competency</th>
<th>Yes ☐</th>
<th>b. Percentage of “Just Competent” trained service providers who you would expect to satisfactorily complete this skill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No ☐</td>
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</tbody>
</table>

**c. Suggested Revisions to Statement of Skill:**
LEARNING ACTIVITIES

SUMMARY OF THE SESSION
During this session, you will review: 1) Based on your learning objectives, how to select relevant activities; 2) Based on those activities, how to select teaching methods; 3) How to select only content that directly supports the desired objectives; 4) How to create session plans to organize your courses; and 5) How to select modes for delivering instruction based on the course context.

LEARNING OBJECTIVES FOR THE SESSION
At the end of the session, participants will be able to:

1. Given specific learning objectives, design realistic and relevant learning activities and exercises that engage learners in purposeful learning and help them:
   - Master the learning objectives
   - Successfully complete the learning assessments
   - Apply what they’ve learned on the job

2. Using identified learning activities, organize the learning activities to support increasing mastery of objectives.

3. Based on the identified learning activities, select engaging and appropriate teaching methods to help learners accomplish the learning objectives.

4. In a case study, distinguish content that directly supports successful completion of the learning activities from content that is not relevant.

5. Using identified learning objectives, create session plans that address the nine events of instruction.

6. Based on the identified course/learning context, learner characteristics and identified learning activities, select appropriate mode(s) for delivery of instruction.
**Exercise: Select Relevant and Purposeful Learning Activities**

In the left column of the table below is a list of learning objectives for health care workers in training. In the right column are several potential learning activities to help the learners master the objective. Answer the questions below the learning activities in the right column as you work through this activity.

Remember that, in practice, you will often need to use more than one learning activity to help learners master an objective. Remember, too, that more activity may actually be worse than less activity. Try to find the “necessary and sufficient” type and amount of purposeful learning activity that promotes learning and application back on the job. As you consider the learning activities below, ask yourself:

- What outcomes will it/they produce?
- What makes one learning activity strong and another weak?
- Does the learning activity I have chosen correlate directly with how the skill will be used back on the job?

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVE</th>
<th>POTENTIAL LEARNING ACTIVITIES—WHICH ONES ARE APPROPRIATE?</th>
</tr>
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</table>
| 1. The health care worker uses proper handwashing technique. | After a 5-minute lecture on handwashing, healthcare workers will:  
   a. Talk about why proper handwashing is important.  
   b. List the steps for proper handwashing.  
   c. Create a job aid that shows a health care provider washing his hands correctly.  
   d. Use a checklist while observing another healthcare provider wash her hands. At the end of the activity, provide constructive feedback.  

Which of the learning activities above do you think would be most effective in helping learners master the objective?  
Are there activities in the list above that you probably would not use? Why?  
Would you combine several of the activities above? Which ones? Why?  
Are the learning activities you chose sufficient to ensure learning and application of the skill in the left column? If not, what revisions would you make?  
Is there duplication in the choices you have made? What, if anything, can you eliminate? |
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</thead>
<tbody>
<tr>
<td>2. The health care provider effectively counsels adolescent clients about</td>
<td>a. List and describe all available FP methods.</td>
</tr>
<tr>
<td>appropriate FP methods.</td>
<td>b. List and describe all available FP methods that are appropriate for adolescent clients.</td>
</tr>
<tr>
<td></td>
<td>c. With someone else playing the adolescent, tell the adolescent about the FP methods that are appropriate for adolescent clients.</td>
</tr>
<tr>
<td></td>
<td>d. With someone else playing the adolescent, use effective counseling to help an adolescent choose the best FP method for her.</td>
</tr>
<tr>
<td></td>
<td>Which of the learning activities above do you think would be most effective in helping learners master the objective?</td>
</tr>
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<td></td>
<td>Is there duplication in the choices you have made? What, if anything, can you eliminate?</td>
</tr>
<tr>
<td>3. The midwife quickly stops a postpartum hemorrhage.</td>
<td>a. Read about the procedure for stopping a postpartum hemorrhage.</td>
</tr>
<tr>
<td></td>
<td>b. Listen to a 15-minute lecture about the procedure for stopping a postpartum hemorrhage, followed by an opportunity to ask questions.</td>
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<tr>
<td></td>
<td>c. View a demonstration on a model performed by the instructor.</td>
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<tr>
<td></td>
<td>d. Perform the procedure using a model while receiving guidance and feedback.</td>
</tr>
<tr>
<td></td>
<td>e. Using a checklist, provide guidance and feedback to another health care provider as s/he performs the procedure. Then switch places.</td>
</tr>
<tr>
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<td>Which of the learning activities above do you think would be most effective in helping learners master the objective?</td>
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</tr>
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<td>-------------------</td>
<td>----------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 4. The health care worker takes blood pressures accurately. | After a 5-minute lecture on taking blood pressures, health care workers will:  
  a. List the key points to remember about taking blood pressure accurately.  
  b. Explain how to take an accurate blood pressure.  
  c. Watch a demonstration of a blood pressure being taken incorrectly.  
  d. Practice taking blood pressures and receive feedback.  
  Which of the learning activities above do you think would be most effective in helping learners master the objective?  
  Are there activities in the list above that you probably would not use? Why?  
  Would you combine several of the activities above? Which ones? Why?  
  Are the learning activities you chose sufficient to ensure learning and application of the skill in the left column? If not, what revisions would you make?  
  Is there duplication in the choices you have made? What, if anything, can you eliminate? |
| 5. The health care worker provides to a new mother the rationale for vaccinating her infant. | a. Write down the type of information that should be given to a new parent about the benefits of vaccinating her infant.  
  b. Read about the type of information that a new parent should know about vaccination of infants.  
  c. With another person playing the parent, role play good counseling technique while providing information and answering questions about vaccination.  
  Which of the learning activities above do you think would be most effective in helping learners master the objective?  
  Are there activities in the list above that you probably would not use? Why?  
  Would you combine several of the activities above? Which ones? Why?  
  Are the learning activities you chose sufficient to ensure learning and application of the skill in the left column? If not, what revisions would you make?  
  Is there duplication in the choices you have made? What, if anything, can you eliminate? |
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<tr>
<td>6. The midwife correctly charts the progress of labor and delivery.</td>
<td>After a 20-minute lecture on using a chart to record the health status of a woman during labor and delivery, a midwife will:</td>
</tr>
<tr>
<td></td>
<td>a. List 3 reasons for using the chart.</td>
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<td>b. Describe four areas of the chart that are difficult for new users of it.</td>
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<td></td>
<td>c. Review a completed chart and identify omissions and/or entries that are problematic.</td>
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<tr>
<td></td>
<td>d. Given several case studies of women during labor and delivery, prepare a chart for each. Then receive feedback from the instructor.</td>
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Handout: Making PowerPoint Work for Your Audience

Nancy Kiplinger, 2009

WHAT IS POWERPOINT?
PowerPoint is a visual presentation tool designed to support teaching and learning, along with other appropriate learning activities, methods, media, and materials. Think of PowerPoint as an aid to telling your story or selling your ideas. It should be used to complement your presentation, not to carry it. It should not have a leading role. The leading role belongs to you.

In general, avoid handing out copies of your slides. If you need to convey information in text form, develop a handout or reference materials for participants to take with them. As you develop your instruction or presentation, remember this: Every word, image, and function on every slide must be meaningful and contribute to your message. The following guidelines will help you plan, create and give presentations that work.

PLANNING EFFECTIVE PRESENTATIONS WITH POWERPOINT
- Find out as much as you can about your audience beforehand—learning needs, existing knowledge and skills, familiarity with the content, interests and experience.
- Separate nice-to-know from need-to-know content. Less is more [learning], so avoid “content creep.” Develop essential content and eliminate nice-to-know information.
- Write a learning goal and learning objectives. Alternatively, ask yourself, “What three things must my audience absolutely know or be able to do at the end of my presentation?” Often it is helpful to write learning objectives as questions.
- Set the stage with the big picture, and organize content into bite-sized chunks.
- Plan for interaction and activities that help participants process your content.
- Develop examples and anecdotes.
- Write speaker notes—like cue cards, not like a script.
- Also, plan for: a peer review of your slides; a “dry run” of your presentation, preferably with several people who do not know your content well; revision, based on feedback received; and practice time.

DEVELOPING EFFECTIVE PRESENTATIONS WITH POWERPOINT
- More slides may be better than fewer slides. The audience will lose interest if you spend too much time talking about a slide or if the slide is too detailed. Generally, you should talk for no more than a minute per slide; 20–30 seconds per slide is more like it.
- Use basic, not flashy, templates that:
  - Offer maximum real estate; and
  - Are simple and uncluttered.
Tips:

- Avoid primary colors. Never put red or blue next to each other: They vibrate. Remember that some people do not see red and green as red and green.

- Use simple backgrounds. Dark with light letters or light with dark letters—either are okay, but the latter will work better if you plan to keep the lights on. Choose a template that gives you the most space and flexibility. Avoid crowding the main area with logos or other decorations.

Signal to your audience the organization and structure of your content through visual cues. This will help your audience relate your content to what they already know and build a mental scaffold into which to put new knowledge. Think in terms of outline format (levels) but without the Roman numerals: primary headings (major topics or themes), secondary headings, etc.

- Leave plenty of white space when using text. It lets participants focus on what’s most important.

- Adjust PowerPoint’s default spacing between lines and paragraphs to increase readability.

- Choose only those images that support and relate directly to the content (or leave them out). Reflect gender and ethnic diversity in images that include people.

Visually represent:

- Ideas
- Concepts
- Relationships
- Data (charts and graphs)

Tip:

- You can use circles, squares, simple organizational charts, a ladder or representation of stairs, arrows, shaded timelines, etc. You don’t need to be an artist. Think in terms of what you would sketch on the back of an envelope to explain a concept or relationship to someone.

Be economical: approximately 6–8 bullets per slide. Use words or phrases as cues for you and anchors for participants. Avoid complete sentences. Save the detail for what you will say, and put this into the speaker’s notes. Then, cut, cut, and cut again.

- Ensure that bulleted items are related, verbs and ideas are parallel. Group related items.

- Use bulleted phrases/nuggets (two or more items) for unranked/unordered items, numbers to show order.

- Keep verb parts, phrase parts and related words together on the same line.

Type fonts:

- Sans serif (without the serifs, those little hooks and flourishes that make the words appear fuzzy around the edges when projected). Use no more than two fonts per presentation, and stick with ones like calibri, arial (and arial family), gil sans, lucinda sans, tahoma or trebuchet ms. If you must mix serif and sans serif fonts, use the serif font in the heading/title.

- Headings bold; body text regular (except for occasional emphasis)
Sizes for:
- headings: 36–44
- body text: 24–34
- footnotes/citations: 14–18

Tip:
- As much as possible, keep font sizes consistent from slide to slide. (You may need to reset font sizes manually to do this. PowerPoint thinks it's smarter than you are. It's not.)
- Type case: upper and lower case only. Avoid using all caps, as they don’t “read” easily. Almost never use underlines; use bold or italics instead for emphasis.
- Center headings only. Body text will be easier to read if it is justified at the left.
- Use animation and other special effects only when they contribute to usability, readability, comprehension, and participant engagement.

SHOW TIME! USING POWERPOINT WITH YOUR PRESENTATION
- Test your equipment before your presentation.
- Be ready to change your presentation if the audience need is different than anticipated or you have less time than you had anticipated.
- Move out among the participants as you speak.
- Elaborate the points on your slides. Do not read to your audience!
- Use “she” as much as “he” in examples. Demonstrate gender and cultural sensitivity. Be very careful when using humor, and never use words or ideas that some might consider offensive.
- At the end:
  - Summarize main points.
  - Answer questions.
  - Ask participants if objectives have been met for them.
  - Ask for feedback from your audience to improve future presentations; revise.
Example: Learning Activities

EXAMPLE CASE STUDY WITH ANSWER KEY: IUCD USE
Mrs. D. is a 35-year-old woman with 6 children. She had a normal birth of her last child 8 weeks ago. She and her husband do not want more children, and she heard that the IUCD is highly effective for a long time. She is fully breastfeeding and has not had a menstrual period since the birth. She had sexual intercourse in the last month. She has no other conditions that constitute a precaution for using an IUCD.

You find her pelvic exam to be normal with the uterus anterior, small, firm, and non-tender. The cervix is parous, non-tender, normal discharge and ectropian is present.

Questions
1. Is it appropriate to insert an IUCD in this client today? Discuss the pros and cons.
2. Do you consider breastfeeding a reliable method of family planning for this woman?
3. If you provide Mrs. D. with an IUCD today, what information will you give her?
4. Under what circumstances is it appropriate to proceed with IUD insertion in a woman who is not currently having, or just completed, her menstrual period?
5. If she were pregnant and an IUCD was inserted would there be any effect on her health?

Answer Key
1. Is it appropriate to insert an IUCD in this client today? Discuss the pros and cons.
   Yes it is. It is important that the provider be “reasonably certain” that the woman is not pregnant. In this example the woman had her baby 8 weeks ago and is fully breastfeeding. She is using LAM that of 98.5% effective. Her pelvic exam is normal. Ectropian is a normal cervical finding. If possible, a pregnancy test could rule out pregnancy. However, if no pregnancy test is available, this woman should be provided with an IUCD because she is using a very effective form of family planning and there are no other precautions.

2. Do you consider breastfeeding a reliable method of family planning for this woman?
   Breastfeeding is considered the lactational amenorrhea method if the woman meets three conditions: 1) fully breastfeeding, 2) amenorrheic, and 3) less than 6 months since childbirth. If those conditions are met, it is a reliable method.

3. If you provide Mrs. D. with an IUCD today, what information will you give her?
   Mrs. D. needs to be informed that the Copper T 380A IUCD is highly effective and can remain in place for 12 years (recent evidence from WHO shows it to be effective for 12 years). She also needs to know the most common side effects of the IUCD: some cramping and pain for a short time after insertion; heavier, longer menstrual bleeding, and more cramping with the IUCD, which is normal, and usually becomes less in the first and second years. She should be shown
how to check the string, and be encouraged to return to the clinic if she has any problem. Such she cannot feel the strings, she experiences severe abdominal pain, she misses her menses, she or her husband feel the tip of the IUCD or she has foul smelling vaginal discharge or her husband experiences painful urination or penile discharge.

4. **Under what circumstances is it appropriate to proceed with IUCD insertion in a woman who is not currently having, or just completed, her menstrual period?**

It is appropriate to insert an IUCD (Copper T 380A) in a woman who is not currently menstruating or just after her menstrual period if she answers yes to any one of these questions:

- Is she 12 days after her first day of her last period?
- Is she more than four weeks postpartum and has not had sexual intercourse?
- Has she had a baby in the last 6 months and is fully or nearly fully breastfeeding and has not yet had her menses?
- Is she more than four weeks postpartum and had sexual intercourse but she is using a reliable method of contraception
- Is she less than 7 days post-abortion and the uterus is not infected?
- At any time in the menstrual cycle, as long as the health worker is “reasonably certain” she is not pregnant such as she hasn’t had intercourse since her last menses or she is using a reliable modern method of family planning.

5. **If she were pregnant and an IUCD was inserted would there be any effect on her health?**

An IUCD should never be inserted in a woman who is pregnant as it may result in a septic abortion. The provider can be reasonably sure that she is not pregnant by asking these questions and that the woman does not have any symptoms of pregnancy.

**EXAMPLE CASE STUDY WITH ANSWER KEY: CASE ONE: PROGESTIN-ONLY METHOD SIDE EFFECTS MANAGEMENT**

Mrs. C. is a 28-year-old mother of 4 children. The youngest is 2 years old and his birth was very difficult. She does not want to have any more children and her husband agrees. To prevent further pregnancies, she began taking Depo-Provera (DMPA) injections about 1 year ago. It is not yet time for her next injection but she has returned to the clinic because she is worried—she has not had a menstrual period for two months and is afraid that the menstrual blood is building up inside of her.

**History:**

Medical: No significant history

OB: G4P4, no longer breastfeeding, No LMP X 2 months

Meds/Allergies: None

Family History: Married

Social History: no concerns about STIs, not a smoker
1. List two possible causes of Mrs. C.’s amenorrhea.

2. What questions will you ask to gather additional information to determine the cause of amenorrhea?

3. You find no cause for the amenorrhea other than the DMPA. Which is the BEST explanation about the cause of her amenorrhea and its management?
   - This is a common side effect of DMPA and is not harmful.
   - Women who cease bleeding should select another method.
   - This is a common side effect due to less buildup of the lining of the uterus and is not harmful.

4. Mrs. C’s best friend told her she heard DMPA shots can cause a woman to lose bone. Which is the best response?
   - DMPA is not associated with any decrease in bone density.
   - DMPA does decrease bone density during use of the method.
   - DMPA does decrease bone density but not significantly in adult clients.

5. Despite your explanations, Mrs. C. insists on stopping the DMPA. Select three methods you would feel most comfortable recommending for her.

6. If Mrs. C changes her mind and decides she wants to discontinue DMPA so she can have one more child, which of the following is true about the return to fertility?
   - Women who stop using DMPA wait about 4 months longer on average to become pregnant

7. The return to fertility is immediate:
   - Women using NET-EN have no delay in the return to fertility.

8. Mrs. C discontinued DMPA 12 months ago. She comes into clinic worried she might be infertile. She is worried she took DMPA too long and that it has hurt her ovaries. Which is your best action?
   - Reassure her that the fertility is just delayed, there is no permanent harm.
   - Encourage her to pursue fertility testing.
   - Reassure her that she’ll get pregnant soon.

### Outcome
Mrs. C. returns to the clinic for antepartal visits 6 months later, excited to have her next baby.

### Key points
- An important counseling point for women considering DMPA is the delayed return to fertility.
- Prepare women for unusual bleeding patterns and amenorrhea, providing a basic explanation of the physiology is helpful.
- DMPA is associated with a reversible reduction in bone density, but no adverse outcomes have been identified.
Answer Key

1. List two possible causes of Mrs. C.’s amenorrhea.
   - The two most likely causes could be pregnancy and changes in the endometrium related to progestin use.

2. What questions will you ask to gather additional information to determine the cause?
   - Your questions can include the following:
     - Has she been more than 4 weeks late for an injection?
     - If she was late, did she use a backup method of contraception?
     - Does she have any other complaints or concerns?

3. You find no cause for the amenorrhea other than the DMPA. Which is the BEST explanation about the cause of her amenorrhea and its management?
   - This is a common side effect of DMPA and is not harmful.
   - Women who cease bleeding should select another method.
   - **This is a common side effect due to less buildup of the lining of the uterus and is not harmful.**

C is the best explanation. A is also correct, but C is more specific and addresses her concerns. Reassure her that most women using progestin-only injectables stop having monthly bleeding over time. While on DMPA, the lining of the endometrium becomes very thin and menstrual flow may eventually stop altogether. This is not a sign that anything is wrong. This effect is temporary and will reverse itself once she discontinues DMPA injections.
## Example Clinical Simulation: Management of Vaginal Bleeding after Childbirth

### SCENARIO
(Information provided and questions asked by the learner acting as facilitator)

1. Mrs. B is 24 years old and has just given birth to a healthy baby girl after 7 hours of labor. Active management of the third stage was performed, and the placenta and membranes were complete. The midwife who attended the birth left the hospital at the end of her shift. Approximately 30 minutes later, a nurse rushes to tell you that Mrs. B is bleeding profusely.
   - **What will you do?**
   - Shouts for help to urgently mobilize all available personnel.
   - Makes a rapid evaluation of Mrs. B’s general condition, including vital signs (temperature, pulse, blood pressure and respiration rate), level of consciousness, color and temperature of skin.
   - Explains to Mrs. B what is going to be done, listens to her and responds attentively to her questions and concerns.

2. On examination, you find that Mrs. B’s pulse is 120 beats/minute and weak and her blood pressure is 86/60 mm Hg. Her skin is not cold and clammy.
   - **What is Mrs. B’s problem?**
   - **What will you do now?**
   - States that Mrs. B is in shock from postpartum bleeding.
   - Palpates the uterus for firmness.
   - Asks one of the staff that responded to her/his shout for help to start an IV infusion, using a large-bore cannula and normal saline or Ringer’s lactate at a rate of 1 L in 15–20 minutes with 10 units oxytocin.
   - While starting the IV, collects blood for appropriate tests (hemoglobin, blood typing and cross matching, and bedside clotting test for coagulopathy).

### KEY REACTIONS/RESPONSES
(Expected from the learner acting as provider)

### Discussion Question 1: How do you know when a woman is in shock?

- You find that Mrs. B’s uterus is soft and not contracted.
  - **What will you do now?**
  - Massages the uterus to expel blood and blood clots and stimulate a contraction.
  - Starts oxygen at 6–8 L/minute.
  - Catheterizes bladder.
  - Covers Mrs. B to keep her warm.
  - Elevates legs.
  - Continues to monitor (or has assistant monitor) blood loss, pulse and blood pressure.
  - Examines the cervix, vagina and perineum for tears.
  - Asks one of the staff members assisting to locate placenta and examines for missing pieces.

### Expected Responses:
- Pulse greater than 110 beats/minute; systolic blood pressure less than 90 mm Hg; cold, clammy skin; pallor; respiration rate greater than 30 breaths/minute; anxious and confused or unconscious.
### SCENARIO
(Information provided and questions asked by the learner acting as facilitator)

4. On further examination of the placenta, you find that it is complete. On examination of Mrs. B’s cervix, vagina and perineum, you find a cervical tear. She continues to bleed heavily.
   - What will you do now?

**Discussion Question 2:** What would you have done if examination of the placenta had shown a missing piece (placenta incomplete)?

5. Forty-five minutes have passed since treatment for Mrs. B was started. You have just finished repairing Mrs. B’s cervical tear. Her pulse is now 100 beats/minute, blood pressure 96/60 mm Hg and respiration rate 24 breaths/minute. She is resting quietly.
   - What will you do now?

### KEY REACTIONS/RESPONSES
(Expected from the learner acting as provider)

- Prepares to repair the cervical tear.
- Tells Mrs. B what is happening; listens to her concerns and provides reassurance.
- Has a staff member assisting check Mrs. B’s vital signs.

**Expected Responses:**

- Explain the problem to Mrs. B and provide reassurance.
- Give pethidine and diazepam IV slowly or use ketamine.
- Give a single dose of prophylactic antibiotics (ampicillin 2 g IV plus metronidazole 500 mg IV OR cefazolin 1 g IV plus metronidazole 500 mg IV).
- Use sterile or high-level disinfected gloves to feel inside the uterus for placental fragments and remove with hand, ovum forceps or large curette.

- Adjusts rate of IV infusion to 1 L in 6 hours.
- Continues to check for vaginal blood loss.
- Continues to monitor pulse and blood pressure.
- Checks that urine output is 30 mL/hour or more.
- Continues with routine postpartum care, including breastfeeding of newborn.
Example: Role Play for Practice

COUNSELING THE POSTPARTUM WOMAN ON LAM BREASTFEEDING AND TRANSITION TO ANOTHER MODERN METHOD OF FAMILY PLANNING WITH ANSWER KEY

Participant Roles
Clinician: The family planning health care provider is a doctor or provider who has good experience in counseling and communication.

Client: Mrs. B. is a 25-year-old woman. She has two children and gave birth to her second child 3 months ago. During the delivery she had pre-eclampsia. She breastfeeds her baby and does not want to take any medication for family planning while her baby is small. She had to take medicine for a day or two after she had her baby and she was concerned about the medicine going to her milk.

Situation
Mrs. B. has come to clinic for family planning counseling. She and her husband do not want to use hormonal method while the baby is only getting breast milk. She and her husband want to have more children but they are undecided when to have their next.

Focus of the Role Play
The focus of this role-play is on the action and reaction of the health care provider and the woman. The woman should be supported in her desire to delay the next pregnancy, and it should be acknowledged that breastfeeding can be an effective method for a limited period. At the same time, the health provider should assess the knowledge of the client regarding other family planning methods and assure her of the safety of the advised methods during lactation, and the client should be knowledgeable about the use of various family planning methods. There should be discussion about the three criteria for effective use of breastfeeding for birth spacing and when she should begin another method of family planning in addition to breastfeeding.

Note: Other answers may also be valid, as the interaction can include a wide range of discussion points. “Breastfeeding for birth spacing” is also called the “Lactational Amenorrhea Method” (LAM) in the contraceptive literature. “LAM” can be difficult to understand and to translate.

Discussion Questions
1. Did the health care provider give enough information on family planning?
2. Was the health care provider successful in assuring that Mrs. B. would be able to use breastfeeding and name the three criteria of LAM for birth spacing and when to start another method of family planning?
3. Was Mrs. B. able to gain the information completely?
4. In your opinion, what gaps were there in this counseling?
**Answer Key**

1. The health care provider should introduce her/himself and call her by her name, speak to her in a respectful way and use simple and understandable words for her. The health care provider should give enough information about family planning methods and describe their advantages and disadvantages, particularly those methods that are compatible with breastfeeding. However, if the woman clearly wants to use breastfeeding, then most of the time should be spent on her chosen method. Too much information on other methods will detract from her ability to fully understand the method she chooses.

2. The health care provider should mention the following information to the woman in her conversation: The three criteria for effective use of breastfeeding for birth spacing are:
   - Fully breastfeeding (night and day feeds, no supplemental feeding),
   - Infant is 6 months or less in age, and
   - Amenorrhea.

Before the period of lactational amenorrhea is over a woman needs to transition to another method such as one of the progestin-only methods (injectables or POPs) or an IUCD. The provider can be “reasonably certain” that the woman is not pregnant. During the period of LAM the woman and her partner can decide what method of family planning best suits their needs and start that method before she stops LAM. It is possible to become pregnant before the first menses.

The provider should discuss healthy timing and spacing of pregnancies since Mrs. B is uncertain about when she should have another pregnancy. The provider should also discuss return to fertility which may occur prior to the onset of menses when she begins to offer her baby food other than breast milk or when her baby is 6 months.

3. and 4. The health care provider should listen carefully and respectfully and should consider the woman’s feelings and history. Whenever she asks about family planning methods, the health provider should answer with clear and concise information. A friendly interaction will help the woman to ask all the questions she has and to receive information that will help her be an effective user. In your discussion of this case, note the rapport between the woman and her health provider, if the proper information was presented by the health provider, and how responsive the health care provider is to the woman’s concerns.
Exercise: Create and Facilitate a Role Play

The purpose of this exercise is to help you create a role play. Review this checklist and check (✔) each step as it is completed.

☐ Develop the objective of the role play. This will determine who will be involved and how you will write it. For instance, if the purpose of the role play is demonstration, you may wish to be involved in the role play; if the purpose is to explore attitudes, you may want only students to be involved.

☐ Using the information in the module, create a role play by using the form provided. Be sure to provide clear directions as role plays can easily become theatrical and miss the objective.

☐ Prepare any notes for facilitating the role play, noting any topics or ideas that you wish to highlight before or after the role play.

☐ Plan how you will summarize the role play. How will you relate the role play to the objective?

Objective of the Role Play:

Resources needed:

Directions:

Situation:

Roles:

<table>
<thead>
<tr>
<th>WHO</th>
<th>INSTRUCTIONS FOR THEIR PERFORMANCE</th>
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<tbody>
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</table>


Discussion Questions for Observers

1.

2.

3.

4.

ANSWERS OR KEY POINTS
Exercise: Create and Facilitate a Case Study

The purpose of this exercise is to help you create a case study. Review this checklist and check (✓) each step as it is completed. Use another piece of paper or your computer to create the case study.

☐ Develop the objective of the case study. Is the objective to develop clinical decision making skills? Is the objective to stimulate discussion about attitudes? Write the objective at the top of the page.

☐ Using the information in the module, create a case study. You may also adapt and use a case study that has already been developed. Case studies that develop clinical decision making skills will be very structured with clear answers, case studies to address attitudes will have broader discussion questions. A template for a clinical case study is included below.

☐ Prepare any notes for facilitating the case study, noting any topics or ideas that you wish to highlight before or after the case study.

☐ Plan how you will summarize the case study. How will you relate the case study to the objective?

Objective of the Case Study:

Resources needed:

Scenario:

History findings:

Physical exam findings:

Questions:
Exercise: Create and Facilitate a Clinical Simulation

The purpose of this exercise is to help you create and facilitate a clinical simulation. Review this checklist and check (✓) each step as it is completed. Use the sample form on the following page.

☐ Develop the objective of the clinical simulation. Is the objective to develop clinical decision making skills? Is the **objective** to practice for an emergency? Write the objective at the top of the clinical simulation form.

☐ Using the information in the module, create a clinical simulation by using the form provided.

☐ Review the clinical simulation, noting the specific points, clinical facts, or ideas that you wish to share during the simulation.

☐ Plan how you will facilitate the clinical simulation. Will the simulation involve a small group of students using a model or will you demonstrate this with the whole class? Will the simulation take place in the classroom, the skills development lab, or the clinic?

☐ Plan how you will summarize the clinical simulation. How will you relate it to the objective?
Template: Clinical Simulation Form

Objective:

Resources needed:

<table>
<thead>
<tr>
<th>SCENARIO 1</th>
<th>KEY REACTIONS/RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Information provided and questions asked by the teacher)</td>
<td>(Correct responses expected from student)</td>
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<tr>
<td>Discussion Questions</td>
<td>Expected Responses</td>
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</table>
# Template: Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
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</table>

**Topic:** (related objective from the course)

**Session objectives:** By the end of this session, learners will be able to:

<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro/Activity</td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td></td>
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<tr>
<td>Practice Activity</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
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</tbody>
</table>

**Self-Review/Evaluation** (key points from session, what worked/what did not, modifications for next session, etc.):
Handout: Selecting Instructional Content

LESS IS MORE; SELECT ONLY ESSENTIAL CONTENT

- Short-term memory fills quickly, so limit content.
- Learners find it hard to determine which content to remember and focus on, so limit content.
- Learning needs should determine the content selected, limit content to specific learning gaps.
- Limit content to improve learning outcomes.
- Think: “What is the least I can teach?”

Limit content by filtering through these screens:

<table>
<thead>
<tr>
<th>Objective</th>
<th>Does content match objectives?</th>
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<tbody>
<tr>
<td></td>
<td>Does content support desired activities?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants</th>
<th>Is the content appropriate for participants?</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Will the content be relevant for participants’ context?</td>
</tr>
<tr>
<td></td>
<td>Are the vocabulary and examples appropriate for the participants?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Features</th>
<th>Does the content include the nine events of learning?</th>
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<tr>
<td></td>
<td>Will the content be engaging to participants?</td>
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<td></td>
<td>Does the content require relevant practice for learning?</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Focus</th>
<th>Does the content focus on having the participants practice the desired activities?</th>
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<tbody>
<tr>
<td></td>
<td>Does the content contain extraneous material not related to the objectives or activities?</td>
</tr>
</tbody>
</table>

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2 Adapted from: Hannum, Wallace. February 2009. Training Myths: False Beliefs that limit the efficiency and effectiveness of Training Solutions, Part I. Performance Improvement Vol 48 (2), IPSI.
COURSE EVALUATION

SUMMARY OF THE SESSION
During this session, you will review: 1) How to evaluate your course as you are developing it and to decide if the learning goals were met or not; and 2) How to use data summary charts to determine if you need to make changes to questions or to the course itself.

LEARNING OBJECTIVES FOR THE SESSION
At the end of the session, participants will be able to:

1. Based on draft or existing materials, describe formative and summative evaluation approaches that will identify if the learning goals will be met by the draft course design.
2. Create a data summary chart and identify where to revise instruction.
Handout: Formative Evaluation Guidance

The following matrix is a summary of information you will gather during formative evaluation of a training course, the bottom two rows identify who can provide the information and what tools you can use to capture it. Formative evaluation occurs:

1. One-to-one with target learner
2. Pilot testing with a small group of target learners
3. Field testing in real context

Sample Framework for Formative Evaluation

<table>
<thead>
<tr>
<th>COMPONENTS OF MATERIALS</th>
<th>RELEVANCE TO GOALS</th>
<th>CONTENT</th>
<th>CLARITY</th>
<th>MANAGEMENT (TIMING/ETC.)</th>
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</thead>
<tbody>
<tr>
<td><strong>Pre-instructional:</strong></td>
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<td>Post-test</td>
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| Who should judge?      | Instructional designer | Subject matter expert | Target learners | Target learners and facilitators |
| How to gather?         | Checklist interview    | Checklist or feedback | Observations, interviews, tests | Observation, feedback forms |

In addition, there are general questions to consider as well:

1. Do the lesson or session plans or facilitator’s notes work?
2. Are the facilitator’s materials appropriate and clear?
3. Are the learner’s materials appropriate and thorough enough?

---

4. Is the content presented **only** what is necessary to support performance of the learning objectives?

5. Are the support materials (PowerPoints, handouts, etc.) what you expected or wanted? If not, what did you want?

6. Are the technology components appropriate?

7. Is there clarity? Is the message clear to the learners?

8. Is there impact? What is the impact on individual learner attitudes and mastery of objectives? Is it feasible given the available resources and context?

9. What doesn’t work and needs to be changed?
### Example: Data Summary Table

**EXAMPLES**

1. The following data summary table reports evaluation data for a set of training materials. Note where weaknesses are found and where revisions should be made. Note:

   - 1 = correct answer
   - 0 = incorrect answer

   Low scores indicate problem with question, instruction or materials

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</table>
Exercise: Data Summary Table

1. Construct a data summary table for the following results on a test with 20 items.
   - Student 1 missed items 3, 6, 10, 15.
   - Student 2 missed items 1, 3, 5, 10, 12, 15, 19.
   - Student 3 missed items 2, 7, 10, 15.
   - Student 4 missed items 3, 6, 9, 19.
   - Student 5 missed items 3, 6, 10, 15.
   - Student 6 missed items 2, 10, 15.
   - Student 7 missed items 3, 6, 7, 17, 19.
   - Student 8 missed items 4, 6, 8, 12.
   - Student 9 missed items 3, 6, 9, 19.
   - Student 10 missed items 3, 5, 6, 7, 9, 10, 17.
   - Student 11 missed items 8, 10, 16, 19.
   - Student 12 missed items 3, 6, 10, 15.
# Data Table Summary Table Form

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2. Complete the following data summary table. Where would you make revisions?

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Instructional Design
# Template: Action Plan

<table>
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<tr>
<th>ACTION</th>
<th>PERSON RESPONSIBLE</th>
<th>DEADLINE</th>
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Final Evaluation Form

Please evaluate the following by ticking (✓) how you feel about each statement. Feel free to comment below and use the back of the page for more writing space.

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>STRONGLY AGREE</th>
<th>AGREE</th>
<th>NOT DECIDED</th>
<th>DISAGREE</th>
<th>STRONGLY DISAGREE</th>
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<tbody>
<tr>
<td>1. For the work I do, training was appropriate.</td>
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<td>2. For the work I do, training was useful.</td>
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<td>3. Training facilities and arrangements were satisfactory.</td>
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<td>4. The Learner’s Guide and other reading materials were easy to understand.</td>
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<td>5. The Reference Manual and other reading materials helped me to learn.</td>
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<td>6. Teaching aids were useful (demonstrations, slide presentations, etc.).</td>
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<td>7. The methods used for teaching were helpful (case studies, role plays,</td>
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<td>clinical simulation).</td>
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<td>8. The facilitators were knowledgeable.</td>
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<td>9. The facilitators were skilled.</td>
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<td>10. The facilitators were fair.</td>
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<td>11. The facilitators were friendly.</td>
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<td>12. The facilitators communicated clearly and simply.</td>
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<td>13. The objectives of the training were met.</td>
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</tbody>
</table>
1. Which topics were most useful to you?

2. Which topics were not useful to you?

3. What would you change about the training?

Other comments (please use back of paper if needed):
REFERENCES


Piskurich, G. 2006. *Rapid Instructional Design: Learning ID Fast and Right*


http://www.jhpiego.org/en
FACILITATOR’S GUIDE
### COURSE OVERVIEW

#### Instructional Design Course Overview Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER</th>
<th>DURATION: 40 MIN</th>
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**Topic:** Instructional Design Overview

**Session objectives:**
- Identify the goals and objectives of this course.
- Describe the classic ADDIE model for Instructional design.
- Describe the characteristics of instructional design.

<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
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<tbody>
<tr>
<td><strong>Intro/Activity:</strong> Ask the group to think of someone very memorable and share. Point out that most of those individuals are memorable because of their performance or actions. In the same way that parents influence children more by what they do than what they say, instructional design goals are to ensure learning interventions focus on performance more than knowledge or covering content.</td>
<td>Instructional Design Manual, Jhpiego</td>
</tr>
<tr>
<td><strong>Content:</strong> Review Instructional Design Course Overview PowerPoint; see the narration notes for details. At the appropriate slide, take 10 minutes to review the main content of each reference manual: Learning for Performance and Instructional Design. Review the contents of the Learner’s Guide, and briefly identify key tools: the instructional planning worksheet, the session plan form if not already done during the PowerPoint. Review Learning for Performance: box 4 on page 6. Discuss the key outputs for each phase of the process. This course will focus mainly on Analysis, Design, Development. Referring to the Learner’s Guide, review how exercises, handouts and templates are used in this course.</td>
<td>Instructional Design Guide for Learners Learning for Performance, IntraHealth Instructional Design Overview PowerPoint</td>
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<tr>
<td><strong>Summary</strong></td>
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<tr>
<td>• Focus analysis on desired performance.</td>
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<tr>
<td>• Move from “I must cover this content” to “what does the learner need to do?”; this should drive objectives, assessment and activities.</td>
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<tr>
<td>• While this course won’t make them all instructional designers, they should all leave thinking differently about objectives and activities, and create more efficient and relevant learning experiences.</td>
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<tr>
<td><strong>Self-Review/Evaluation</strong> (key points from session, what worked/what did not, modifications for next session, etc.):</td>
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</tbody>
</table>
Instructional Design Course Overview Narration Notes

Slide 1

Instructional Design
Course Overview

Slide 2

Course Goal and Objectives

Course Goal
- Create more effective, engaging learning experiences for participants in your courses.

Course Learning Objectives
- After completing this instructional design course, you will be able to apply three key elements of the instructional design model to improve learning and actively engage participants in your courses.

Refer to the course syllabus in the Learner’s Guide.
Emphasize that while this course will not create instructional designers; they should be able to create more effective and engaging learning experiences.
Note that the learning objectives are organized by: course context, learning objectives, assessment methods and activities.

Slide 3

Course Context

- Describe a course context
- Conduct a basic audience analysis, and identify relevant:
  - learner characteristics
  - training context/ workplace context
  - learner experience

Here are the shortened versions of the course objectives from the syllabus.
Learning Objectives

- Write learning objectives that include the desired conditions of performance, performance and criteria for performance.
- Sequence the learning objectives
- Identify prerequisite knowledge and skills required

Note that during the course they will be learning to write objectives in the "classic" way, including conditions, performance and criteria for assessing performance.

They might not keep this level of detail for their course, but this practice will help them think critically about assessment and activities, which is a key goal of this course.

Assessment

- Describe options for assessment tools
- Critique and improve questions
- Create test items
- Construct checklists

Learning Activities

- Design realistic and relevant learning activities and exercises that engage learners
- Organize the learning activities
- Distinguish content that is relevant from content that is not
- Select appropriate teaching methods
- Select appropriate mode(s) for delivery of instruction.
- Create session plans
Course Evaluation

- Describe formative and summative evaluation of courses
- Create a data summary chart to identify where to revise instruction

Reference Manuals

Review the reference manuals: Learning for Performance will be used to provide guidance during the course, Instructional Design will be used to provide details on creating assessment items and activities.

Instructional Design Model

- Analyze
- Design
- Develop
- Implement
- Evaluate

The classic model for instruction design is the ADDIE model; during the course, most of the time will be spent on analyze, design, and development.

Refer the group to the ADDIE model on page 6 of learning for performance.

Discuss the steps in each stage and review what will be covered during the course.
Characteristics of Instructional Design

- Responds to learning needs
- Only “need to know”
- Cyclical
- Focus on performance over knowledge

Review the key characteristics:
Responds to learning needs from a needs assessment.

Only provides “need to know” not “nice to know”; this is a critical point that will be emphasized—activities and content must be focused on need to know, not nice to know to prevent wasting precious time and resources.

Cyclical: often during the process, you will need to go back and revise objectives or activities during instructional design; you should always test your assumptions.

The most critical point: instructional design, your objectives, assessment, and activities should focus on desired learner performance based on gaps identified during a needs assessment. Ask the group why this matters. (Answers can include: reduce time spent on theory, helps make sure selected activities are relevant for desired performance.)

Your Tool for this Course

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>Assessment Methods</th>
<th>Learning Activities</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Given a sample from a decision-making exercise, the learner objectives are consistent with the positions, providing an overview for performance.</td>
<td>In a case-study scenario, arrange learning objectives in an appropriate sequence.</td>
<td>Provide a list of incorrectly ordered learning objectives for learners to arrange in the proper order (individuals or small groups).</td>
<td>Exercise: Learning objectives misordered—needs answer key with correct order and rationale. Learning for Performance, step 6, pg 38.</td>
</tr>
<tr>
<td>Given a range of client case studies, identify the counseling tasks appropriate to the different types of counseling tasks, completing all the tasks on the checklist.</td>
<td>In a matching exercise, correctly identifies the different counseling tasks appropriate to the different types of counseling clients presented in a case study.</td>
<td>Provide a handout on different types of counseling tasks appropriate to the different types of counseling clients.</td>
<td>Handout: Different types of counseling clients.</td>
</tr>
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</table>

Review the main features of the instructional design planning worksheet that will be used during this course. There are a range of options for the design phase; but this version is what they will be using.

During the course they will use the planning worksheet to identify the desired assessment methods, activities, and resources needed for each identified learning objective.
Products of this Course

- Completed planning worksheet for a new or revised course
- Session plans for key content areas
- Activities
- Assessment items

Depending on the amount of materials work that they will do, the main outputs of this course are listed here.

Note that these products are based on an identified learning need or gap in performance.

How will this course affect YOU?

- Think critically about desired performance, over knowledge
- Remove “nice to know”
- Create efficient learning interventions
- When writing objectives, think: “What does the learner need to DO”, NOT “I must cover this content”
- Critically select only relevant activities for desired performance

Review with the group:
For you to be able to “create more effective and engaging learning experiences,” this course will help you to:

References

- Dick and Carey, Systematic Design of Instruction, 2009
- Piskurich, G. Rapid Instructional Design: Learning ID Fast and Right, 2006

Refer to the References in the Learner’s Guide; but note that these are some of the better, more useful references.
COURSE DESIGN

Course Context and Design Session Plan

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<th>SESSION NUMBER:</th>
<th>DURATION: 4 HRS</th>
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**Topic:** Initial learning needs analysis and course context

**Session objectives:** *By the end of this session, learners will be able to:*
- Describe the general context of the desired technical content course (intended learners, the expectations of their jobs).
- In simulation, conduct a basic audience analysis, and identify relevant learner characteristics, training context/ workplace context, learner experience.

**Methods and Activities | Materials/Resources**

**Introduction:** Tell a story (or describe a situation) whereby cadre x is unable to do task y. Describe the possibility of lack of supplies/equipment, policy constraints, etc., AND knowledge gaps. Emphasize the need to *assess* vs. *assume*. Ask who has participated in a needs or training needs assessment in the past. Ask them to share one or two key points about training or performance needs assessments. (5 minutes)

**Discussion:** Begin with the flipchart. Review that these are the key tasks associated with an analysis or needs assessment focused on performance gaps. Review the content on training needs assessment in ID Chapter 3 and Step 1 in the Learning for Performance. Discuss the importance of identifying if there is a gap in skills performance that may be solved through a learning intervention. Discuss or review any needs assessment information related to this task. In Learning for Performance, Review page 14, Box 7: key job performance factors. Highlight the importance of considering other issues that contribute to performance gaps. (40 min)

**Activity:** Refer the group to Tool 1, page 15 in Learning for Performance, discuss and complete few of the rows as a large group, then assign sections to small groups to fill in or complete as a large group. If small group work done, each group should take about 15 minutes and then report out. Transition from discussing sources of information to a needs assessment to identify gaps in performance. (30 min)

**Activity:** Refer to an identified performance gap. Now the focus is on carefully analyzing that gap. Assign completing Tool 3 on page 19 to small groups: what are other performance factors, and the other root causes that may need to be addressed? Each group will brainstorm for their assigned section based on what they know (10 min), and then each group will report what they have. Use this activity to carefully identify the learning need. (40 min)

- Learning for Performance, Step 1 and 2, Tool 1, 3, 4 and 5
- ID Manual, Chap 3, especially pages 3–7 through 3–14
- Audience Analysis presentation
- Flipchart:
  - Key Analysis Tasks
  - Identify problem
  - Analyze tasks and conditions of job
  - Analyze current performance
  - Identify causes of gaps
  - Identify desired performance
  - Identify training goals related to desired performance
Content: Mini-lecture, Audience Analysis presentation; then review Step 2, page 21–22 in Learning for Performance. NOTE: Point out that “mode of delivery” is often identified during analysis based on requirements of the customer, and finalized as you assess and gather more information. (20 min)

Activity: Analyze different groups of learners: Discuss different sets of learners and qualifications: 1) community health workers to be trained to identify and refer sick newborns in the home, 2) nurses to be trained in AMTSL at the primary health center, 3) medical officers to be taught to perform cesarean delivery at the community hospital. Using Tool 4 and 5 from Learning for Performance as a reference, review the characteristics of their group of learners and their work setting. Discuss how this will affect their design of the course. (30 min)

Use this to provide feedback on audience analysis of learner characteristics, and emphasize that this will be used to make course design and delivery decisions.

Activity: Analyze target audience learners:  
- Working individually or in pairs, have learners recall from memory students who attended their most recent training. If anyone has not taught a course, have them think about a group of learners from the most recent training they have attended. They should complete Tool 4 in Learning for Performance for their target audience, for each characteristic (literacy, educational, socio-cultural, work experience, comfort with technology, etc.) offer a consideration based on the identified characteristic. For example, if the learners are not literate, materials will need to rely heavily on pictures. Learning will need to take place through discussion, example, model work, role play and practice.
- Discuss in the larger group and document for course design considerations. (30 min)

Activity: Draft a course design document based on an identified learning need: Review the example course design document in the ID Guide for Learners; refer back to the ID Chapter 3 manual on training needs assessments as a means to gather information. Fill in the course design template in the Guide for Learners.
- Divide into small groups; assign each group a section of the course design document, OR have each group complete a design document-then compare them
- Each group has 60 min to work.
- Each group has 10 minutes to report out and discuss as a large group OR, collect and consolidate and review with the group the following day. (30 min total)

Summary/Reinforce key points (15 min):
- Emphasize that addressing knowledge/skills gap is only one factor affecting performance; reinforce the six key job performance factors.
- Stress that even though a learning intervention is required,
other performance factors must be addressed.  
- State again the value of understanding the learners for whom you will design a course.  
- Begin design with ideas about training delivery or approaches.  
- Confirm or reject those ideas through analysis of learners and course context.  
- Review the key learner characteristics to keep in mind.  

**Review/Evaluation**
Objective

Conduct a basic audience analysis, and identify relevant learner characteristics, training context/workplace context, learner experience.

Better Outcomes with Audience Analysis

Targeted training is more likely to be:
- Relevant
- Effective
- Useful
- Transferable

and less likely to...
Analyzing Your Audience

- What do I need to know about the learners’ existing skills and knowledge?
- How do I find out about them?
- How do I use what I know?

Why bother? (What can happen if I don’t do it?) Ask participants. Responses should include mistargeted instruction—above or below audience. Effects are boredom or frustration; disengagement, in either case.

What do you think it is? (What is it?) From the complex to the seemingly trivial: Assessing capacity, prerequisite K & S, interest, need for topic/training, ability to apply back on the job, type of

How do I do it? Ask questions and use tools.

What do I do with it? Use it as input to design of instructional strategy, development of materials, etc.

Success

To ensure success
- build on what students already know

To avoid failure
- don’t teach what students already know

Match instruction to students’ level of performance

Collecting Data for Audience Analysis

Collect data about:
- learners
  - What do they already know about the topic?
  - How well do they read? What is their experience with technology?
  - Why do they think they are attending your training session?
- their work setting
- existing resources & requirements for training & learning
We will look at both general characteristics and specific entry behaviors.

Specific entry behaviors describe the knowledge the learners will bring to the training.

This will be discussed in more detail when we focus on objectives.

Typically collected from records. This type of data will dictate what types of methods and modes of instructional delivery will be the best for your target audience.

Sums up the audience. Helps us understand our learners. Basis for instructional decisions. Helps us start at the right place.
Slide 10

**Are there tools I can use?**

- Worksheets:
  - Learner Characteristics
  - Work Setting Characteristics
  - Resources & Requirements

Tools are in the Learning for Performance notebook.

Tools for determining basic entry skills will be discussed when we look at objectives.

---

Slide 11

**What About Mode of Instruction?**

- How will you deliver your instruction?
- Initial ideas occur in design stage, even if finalized later

---

Slide 12

**Common Modes of Delivery**

- Classroom-based
- On-the-job learning
- Self-paced/self-instruction (distance or not)
- Technology-based (mobile, computer)
- Blended (more than one approach)

We will focus on this at the end of the course; but keep these in mind.

What initial ideas do you have for your mode of delivery based on your situation and audience analysis?
## Prerequisite Skills Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER</th>
<th>DURATION: 75 MIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Topic:** Learning Objectives: Identifying prerequisite skills and knowledge

**Session objectives:** *By the end of this session, learners will be able to:*
- Identify the prerequisite skills and knowledge that they will not teach but which their course participants must already possess to be successful in achieving the learning objectives.

### Methods and Activities

<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
</tr>
</thead>
</table>
| **Intro/Activity:** Sympathy for the learner: *What happens to learners if you don't target instruction based on prerequisite skills and knowledge?* Ask participants to recall and discuss how they have felt when they began a learning experience and realized that they:
  - Did not have the knowledge and skill to comprehend the material, or
  - Had already mastered some or all of the skills and knowledge outlined for the learning experience. (10 min)
| Prerequisite Skills PowerPoint Example: Instructional Planning Worksheet |
| **Activity:** Prerequisite skills PowerPoint presentation with graphics and debrief with the following discussion (10 min) |
| **Discussion:**
  1. What are learning prerequisites (definition, role, importance)
  2. The role of prerequisite skills and knowledge in developing effective learning experiences
  3. Rationale for identifying and testing prerequisite skills and knowledge and the consequences of not doing so. (10 min)
| **Discussion:**
  1. How to do this with limited time and budget. (~20 representative learners). Ask questions and use tools.
  2. Simple polling (street poll) vs. highly accurate polling; advantages and limitations
  3. What can happen if too few people are included in the pretest group (10)
| **Activity:** In small groups, using a given set of learning objectives and the instructional planning worksheet example, identify prerequisite skills and knowledge for one or two objectives. May divide the group up by topic area if needed. (30 min)

### Summary

- Why test
- How to test
- How to use results from test

### Self-Review/Evaluation

1. Given a set of questions each composed of a learning objective and a list of choices, distinguish what learners must know or be able to do already vs. what they do not know/cannot do and what is not relevant.
2. Key points from session, what worked/what did not, modifications for next session, etc.
Prerequisite Skills & Knowledge

Objective

- Use learner characteristics & learner behaviors to set specific entry behaviors for a course, workshop, or seminar.

What are prerequisite skills & knowledge?

- Skills & knowledge learners possess when they come to a course.

Getting to know and understand your learners
Finding out what learners already know before you teach them
Prerequisites determine…

- where to start instruction
- how to teach

What and Why

- Finding out what the intended audience already knows about the topic
- Empirical—not one person’s guess: Based on data, not assumptions
- Systematic—not “loose” or random
- Vital factor in instructional success!

Gathering information about intended learners

Used to match instruction to learners

Figuring out what people need to know/do to be successful in their work

Identifying content for training what they know, influences and what they will learn

Role in Learning

“The most important single factor influencing learning is what the learner knows. Ascertain this and teach accordingly.”

David Ausubel, educational psychologist

What learners already know has the most powerful influence on what they are able to learn in a meaningful manner.
Slide 7

Risks of Not Identifying Prerequisite Skills and Knowledge

- Education/training has little or no impact
- Problem remains
- Wasted time & money
- Credibility of educational organization is affected negatively

Slide 8

Why Bother?

Must take learners into account for instruction to be successful!

If we underestimate their knowledge, they are bored.
If we overestimate their knowledge, they are frustrated.

Either results in poor training that wastes time & resources.

Slide 9

Better Outcomes with Audience Analysis

Targeted training is more likely to be:

- Relevant
- Effective
- Useful
- Transferable

and less likely to...

Helps prevent frustration
Helps prevent failure
Helps save instruction time
Ensures understanding
Analyzing Your Audience

- What do I need to know about the learners’ existing skills and knowledge?
- How do I find out about them?
- How do I use what I know?

Why bother? (What can happen if I don’t do it?) Ask participants. Responses should include mistargeted instruction—above or below audience. Effects are boredom or frustration; disengagement, in either case.

What do you think it is? (What is it?) From the complex to the seemingly trivial: Assessing capacity, prerequisite K & S, interest, need for topic/training, ability to apply back on the job, type of)

How do I do it? Ask questions and use tools.

What do I do with it? Use it as input to design of instructional strategy, development of materials, etc.

Deciding What to Teach

Content audience should know

Knowledge gap

Training content to teach

Content they do know

If We Assume…

...this is what we should teach.

...this is what they already know.

Content students should know at the end of the course.
Slide 13

What If…

...this is what we teach.
...and we assume they know this much but this is what they actually know…

Content students should know at the end of the course.

...they miss this & all that builds on it…

Slide 14

Or, What If…

...this is what we teach,…
...and we assume they know this much but this is what they know…

Content students should know at the end of the course.

...we waste time teaching what they already know.

Slide 15

Success

- To ensure success
  - build on what students already know

- To avoid failure
  - don’t teach what students already know

Match instruction to learners' identified learning needs
Collecting Data for Audience Analysis

Collect data about:
- learners
  - What do they already know about the topic?
  - How well do they read? What is their experience with technology?
  - Why do they think they are attending your training session?
- their work setting
- existing resources & requirements for training & learning

Audience Analysis

- General Characteristics + Specific Entry Behaviors
  - Use these to set expected entry behaviors (prerequisites)
  - context of examples
  - activities & exercises
  - amount of detail & vocabulary

Specific Entry Behaviors

- Small, specific capabilities
  - Examples:
    - Change a bandage.
    - Take a blood pressure accurately.
    - Use proper hand washing technique.
- Often collected by pre-assessments & diagnostic assessments

General characteristics were reviewed earlier in the course.
Are there tools I can use?

- Polling sample audience
- Pre-testing (before an intervention)
- Focus group discussions

Tools are in the Learning for Performance notebook.
## Writing Objectives Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER</th>
<th>DURATION: 5 HRS</th>
</tr>
</thead>
<tbody>
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</table>

**Topic:** Learning Objectives

**Session objectives:** *By the end of this session, learners will be able to:*

1. Using identified learning needs, write learning objectives that are specific, measurable, and attainable and include the desired performance, conditions of performance and the criteria for assessing the performance.
2. Given a sample from a skills course, sequence the learning objectives consistent with the guidance presented in the reference manual.

### Methods and Activities

<table>
<thead>
<tr>
<th>Intro/Activity</th>
<th>Materials/Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why is getting objectives right so important? Refer to the discussion on needs assessment and identifying learning needs. Stress that objectives will determine assessment and activities, so getting them right, and focused on performance is one of the most critical tasks. (10 min)</td>
<td>Learning for Performance, Step 4, 5 and 6</td>
</tr>
</tbody>
</table>

**Content:** Review of Step 4, determine main job responsibilities
Review Step 4 in Learning for Performance, pg 30–31. (15 min)

**Practice:** As a large group, complete Tool 7 and identify the major job tasks for the identified learning need (or provide one as an example). NOTE: only focus on the job responsibilities identified as learning needs, no need to list all tasks for the job. (30 min)

**Activity:** As a large group, review Step 5 briefly in Learning for Performance. Identify the needed skills and essential knowledge for one or two job tasks using Tool 8 together as a large group. Then divide the tasks and assign one task to each small group. Ask each group to use the guidance in Step 5 to identify the skills, essential knowledge and any desired behaviors for their task. Each group has 30 minutes to work. Collect their group work or get electronic copies of their group work. (45 min)

**Presentation:** Writing Objectives. Review the ‘writing objectives’ ppt. Review Step 6, page 36 in learning for performance. Be sure to cover: definition, role of objectives, and importance of selecting only the objectives that directly support desired performance. Also explain the role of learning objectives in developing effective learning experiences (e.g., if you say ‘list’, that’s all they will do). (30 min)

**Activity:** Review examples of well written objectives in Box 11 in Learning for Performance. Identify the three characteristics. Provide ‘Is it Acceptable’ exercise and note that as a large group you have already completed the first two examples during the ppt. In small groups, they should finish the exercise and report out. Use the Answer Key for “Is it acceptable” to review a few answers with the group to highlight how well written objectives provide very clear guidance. (30 min)

**Activity:** Sequencing objectives example-review the guidance on page 38, Learning for Performance, #5. Use that guidance to review the Sequencing objectives example-discuss why they are sequenced in that manner. Note that they will be sequencing their objectives later. (15 min)

---

96 Instructional Design
Activity: In learning for performance, review Box 12 on page 39 for examples of good verbs for writing objectives. In the same groups, ask them to use the skills, knowledge and behaviors identified in Tool 8 to draft objectives including conditions, performance and criteria. Each participant should individually write one or two objectives that includes the 3 required components. Give them 10 minutes to write, collect and randomly select and review a few with the group to provide feedback on the objectives. (20 min)

Small group work: In small groups, use the instructional planning worksheet template, write objectives (or improve on objectives) for a desired (or existing) course (may divide the group up by topic area if needed) using the skills, essential knowledge and behaviors identified in Tool 8. (2 hr)

Summary
- Need to know vs. nice to know = better return on investment
- Three components of quality objectives; while not often used in practice, help them practice thinking critically about objectives, assessment and activities.

Homework: Write 2 objectives you would use to teach a topic you know very well. Collect the next day and provide written feedback for each person—focus feedback on including the 3 components and the relevance of the objective.

Self-Review/Evaluation (key points from session, what worked/what did not, modifications for next session, etc.):
Exercise Answer Key: Is It Acceptable?

OBJECTIVES
The purpose of this activity is to:

- Practice developing learning objectives which specify the following components: an observable/measurable performance, the conditions of performance and the criteria or standards which will be used to assess the performance.

RESOURCES/MATERIALS NEEDED

- Exercise: Is it Acceptable?
- Exercise Answer Key: Is it Acceptable? (see table below)

INSTRUCTIONS

- Using the table below, review the list of proposed learning objectives for a variety of courses. Indicate which of the three criteria (Observable/measurable performance, Conditions of performance, Criteria) are met for each learning objective. Identify which learning objectives are acceptable and meet all of the criteria.

- Which objectives are unacceptable and why? Work together to re-write unacceptable objectives so that they meet all three criteria.

- Choose a team leader to present the re-written list of learning objectives.
<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>Observable/ measurable performance</th>
<th>Conditions of performance</th>
<th>Criteria</th>
<th>Acceptable</th>
<th>New Learning Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Talk to women about cervical cancer prevention.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>no</td>
<td>During at least one client group session in clinic, talk to women about ways to prevent cervical cancer according to facility/practice standards pertaining to cervical risk factors and prevention.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>During a role play that simulates counseling a patient, demonstrate the ability to talk to a woman about cervical cancer prevention using facility/practice standards or relevant clinical checklist.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>On a written test, answer at least 85% of questions in the section pertaining to Cervical Cancer Prevention.</td>
</tr>
<tr>
<td>2. Explain who should have cervical cancer screening and how VIA (visual inspection of the cervix with acetic acid) screens for cervical cancer.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Based on the clinical histories described, decide correctly in at least 4 out of 5 case studies women who should have cervical cancer screening.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>During supervised clinical practice, demonstrate the ability to choose clients who should have cervical cancer screening using facility/practice standards or relevant clinical checklist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>On a written test, answer at least 85% of questions in the section pertaining to VIA screening for cervical cancer.</td>
</tr>
<tr>
<td>3. Perform a pelvic examination.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>During demonstration on an anatomical model, perform a pelvic examination completing all critical tasks on the clinical checklist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>During supervised clinical practice, perform a pelvic examination on at least +++ patients according to facility/practice standards.</td>
</tr>
<tr>
<td>Learning Objective (The learner will be able to...)</td>
<td>Observable/ measurable performance</td>
<td>Conditions of performance</td>
<td>Criteria</td>
<td>Acceptable</td>
<td>New Learning Objective</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
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</tr>
<tr>
<td>4. Perform active management of the third stage of labor.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>During demonstration on an anatomical model, perform active management of the third stage of labor according to the tasks on the clinical checklist. During supervised clinical practice, performs AMTSL on at least 3 patients according to facility/practice standards.</td>
</tr>
<tr>
<td>5. Provide family planning method-specific counseling to a client.</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>During a role play, demonstrate use of effective communication skills to provide method specific counseling according to the tasks on the checklist. In clinical practice demonstrate the ability to provide method-specific counseling to patients according to facility/practice standards.</td>
</tr>
<tr>
<td>6. Follow infection prevention practices.</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>After conducting VIA and/or cryotherapy in the clinic, demonstrate the ability to provide care and referral services to patients according to facility/practice standards. From the signs and symptoms described, decide correctly in at least 4 out of 5 case studies if you can treat the woman or if she needs to be referred to a higher service delivery level.</td>
</tr>
<tr>
<td>7. Plot the partograph and knowing when to refer the woman.</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>In a case study, plot the partograph according to the criteria outlined in the sample partograph. In supervised clinical practice, plot the partograph for 3 women in labor according to the criteria outlined in the sample. In a clinical simulation, correctly identify the appropriate management for a given partograph that crosses an alert line.</td>
</tr>
</tbody>
</table>
## SAMPLE LEARNING OBJECTIVES

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>Observable/ measurable performance</th>
<th>Conditions of performance</th>
<th>Criteria</th>
<th>Acceptable</th>
<th>New Learning Objective</th>
</tr>
</thead>
</table>
| 8. Take a patient history. | Yes | No | No | No | In simulation, take a patient history according to the checklist.  
In clinical practice, demonstrate taking a patient history according to the checklist. |
Writing Objectives Narration Notes

Slide 1

Objectives
- Defend the importance of getting objectives right
- Describe the three components of an acceptable learning objective
- Identify acceptable learning objectives
- Describe the role of prerequisite skills and knowledge in formulating objectives

Slide 2

Objectives...
- Describe what the learner will be able to do after the course
- Use action verbs that describe observable and measurable performance
- Are sometimes written in ‘levels’
- Are developed based on identified learning needs, not assumptions
- Influenced by learning domains

Slide 3

About objectives...
Stress the focus is on what the learner will be able to do after instruction, not what you will do during.

“Levels” of objectives may be called primary and secondary, terminal and enabling, etc.; discussed later.

If you assume: always test.
Who is familiar with learning domains?

Every competency consists of either skills (psychomotor, communication, clinical decision-making), knowledge (ability to analyze and make decisions), and attitudes (personal feelings). Objectives typically address one specific learning domain.

Note: Attitudes are important to address, especially related to professional behavior and social accountability. They are often addressed by speaking to the desired behaviors, often observed during clinical skill performance.

What activities and assessment are required for the first objective?

What about the second?

Make sure objectives speak to desired workplace performance; avoid focusing on simple recall or regurgitation of facts. The first objective will result in activities that are focused on basic knowledge recall; the second will be focused on behavior.
Level One Objectives

- Also called: main, primary objective, or course objectives
- Provide high level overview
- Describe in clear, measurable terms what students should be able to do after completing a course
- A course may have one or several course objectives

Sample Level One Objective

- After completing this course, the student will assess, classify, and treat a sick child in an effective and integrated manner.

Sample Level One Objective

- After completing this course, the student will assist with a normal childbirth.
Level Two Objectives

- Also called: secondary, specific, instructional, or enabling objectives
- Support the main objective

Describing the specific knowledge, skills and attitudes that students must master to achieve the main objective.

Sample Level Two Objectives

Level One Objective: In clinical practice, provide early infant male circumcision (EMIC)
- Describe EMIC and its benefits and risks
- Educate and counsel parents about EMIC
- Effectively screen males for circumcision in early infancy
- Demonstrate competency in one of three devices for EIMC

Writing Objectives

- Typical objective: Includes action to be taken and object of action “label a diagram”, “Demonstrate suture repair on a model”
- BUT … Instructional objectives should be written differently
Mapping a Learning Objective

Given a roll of duct tape and plastic sheeting, learner will construct an airtight biowarfare shelter in less than one hour.

Condition  Performance  Criteria

Instructional objectives should include the three recommended components: condition, performance and criteria for assessing performance.

May also include: timeframe (after this course), who will do (the learner)

Why Include Conditions, Performance and Criteria?

- Force instructional or course designers to think critically
- Determine assessment method during design phase
- Ensure a focus on performance or desired behaviors
- Specify the given or context of desired performance

Sample Action Verbs

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Skills</th>
<th>Attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define, describe, identify, label, list, match, name, outline, select, state, interpret, explain</td>
<td>Demonstrate, discover, manipulate, operate, predict, prepare, produce, relate, solve, use, organize, plan</td>
<td>Assist, defend, discuss, help, follow, form, initiate, invite, join, justify, propose, select, share, study, work, influence</td>
</tr>
</tbody>
</table>
Sample Conditions

- 'with a client'
- 'in simulation'
- 'presented with a case scenario'
- 'during a community meeting'

What about?

- Understand
- Know
- Believe

Must be observable; these words should never be used in objectives.

Exercise

- For each objective ... does it include the 3 components?
- Suggest improvements
Talk to women about cervical cancer prevention

Better

- During at least one client group session in clinic, talk to women about ways to prevent cervical cancer according to facility/practice standards pertaining to cervical risk factors and prevention.
- During a role play that simulates counseling a patient, demonstrate the ability to talk to a woman about cervical cancer prevention using facility/practice standards or relevant clinical checklist.

Explain who should have cervical cancer screening and how VIA (visual inspection of the cervix with acetic acid) screens for cervical cancer
Better

- Based on the clinical histories described, decide correctly in at least 4 out of 5 case studies women who should have cervical cancer screening.
- During supervised clinical practice, demonstrate the ability to choose clients who should have cervical cancer screening using facility/practice standards or relevant clinical checklist.

Better

- Perform active management of the third stage of labor.

Better

- During demonstration on an anatomical model, perform active management of the third stage of labor according to the tasks on the clinical checklist.
- During supervised clinical practice, performs AMTSL on at least 3 patients according to facility/practice standards.
Notice how easy the second objective is to use to determine your assessment methods and learning activities.

Also note the consistency across the objectives.
Organize Objectives

- Simple to complex
- Prerequisite tasks first
- Known to unknown
- Performance order
- Related objectives
- Sequence more important with novices

Sometimes can start with more interesting content to capture attention, even if not in performance order.

Another way to start is by asking “Why is it important to address X?” or “What would you do if faced with situation Y?”

Keep in mind sequence of content is more important with new learners, or novices, than it is with working professionals or those with some experience.

---

References

- Piskurich, G. *Rapid Instructional Design: Learning ID Fast and Right*, 2006
Assessment Methods Part I Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER:</th>
<th>DURATION: 2 HRS 45 MIN</th>
</tr>
</thead>
</table>

**Topic:** Assessment Methods Part 1

**Session objectives:** *By the end of this session, learners will be able to:*
1. Based on identified learning needs describe options for assessment methods consistent with the guidance provided in the reference manual, including the appropriateness, advantages and limitations of each.

<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
</tr>
</thead>
</table>

**Introduction:** Ask the group to recall an exam or assessment that they felt did not assess what they had been told they would learn in a course or training activity. Then ask them to recall a time where they felt the exam matched an objective of the course. (10 minutes)

**Content:** Review Assessment Principles PowerPoint (20 min)
Note that we will identify methods and method congruence now, and develop the specific items later in the course.

**Activity:** Using the ‘assessment item congruence’ example to point out that if the three components of an objective are included, identifying how you will assess the objective becomes quite easy. Complete several rows as a large group. (30 min)

**Activity: Select assessment methods (90 min):**
- Divide into small groups.
- Each group has 60 min to work. Working in small groups: using instructional planning worksheet with included objectives, identify appropriate assessment methods: “What will the learner need to do to show you he/she has mastered this objective?”
- Each group has 10 minutes to report on what methods they chose to assess learning based on their chosen objective and read specific assessment items (or collect and compile to report out to the large group the following day).

**Summary/Reinforce key points (15 min):**
- Note how assessment methods and items should reflect the objective that was being presented
- Review the importance of choosing methods that demonstrate a change in behavior as opposed to only knowledge recall

**Review/Evaluation:**
Why are appropriate assessment methods critical? What would happen if pilots were assessed using only a written examination?

Click for animation

Assessment methods must directly support and be linked to the desired objectives.

Objectives

- Describe key principles of assessment and assessment method selection

Define these Key Terms

- Validity
- Reliability
- Objectivity
- Discrimination

Provide prizes for those who get these questions right:

Valid: measures what it intends to measure

Reliable: consistently measures, no matter how many times it is administered

Objectivity: provides objective criteria for measurement to reduce bias and subjectivity

Discrimination: discriminates between those who have mastered the content compared to those who have not
Assessment Principles

- Directly linked to objectives
- Evaluate critical or more important skills
- Meaningful: assess application or analysis, not just recall

Tools

- Pre-test
- Quizzes
- Post-Test
- Checklists or skill assessment tools

Pre-Tests

Use to:
- Determine if learners already mastered content - ‘test out’
- Compare pre and post test results
- Assess prerequisite/entry skills

Not as useful if:
- Content is not known or is new
- Course is heavily focused on skills

Most common uses: determine if learners have already mastered content and can “test out,” and to compare pre- and post-results

Can be used to assess prerequisite or entry skills

Skip pre-tests if your content is new to learners.
Post-Tests

Use to:
- Assess if each objective has been mastered
- Identify any problems with instruction
- Identify where instruction should be revised
- Provide feedback to the learner

Will discuss detail on how to determine problems and revise instruction later.

Checklists

Use to:
- Outline critical steps of a skill for practice and assessment
- Often ‘yes/no’, but may also be scored
- Critical part of Objective Structured Clinical Exams
- Not always ‘1-2-3’, maybe include essential tasks in no specific order

Checklists outline critical tasks.

Based on existing service delivery guidelines, standard operating procedures or other objective source

Communication or clinical decision-making skills may use checklists that are not completed in a 1-2-3 order, i.e., outline critical tasks.

Refer to the sample checklists provided in the learner’s materials and discuss the use and purpose of each.
Knowledge: What’s important is that questions test **reasoning and application**—not just recall. Objective and structured answers are better than subjective oral exams or written essays without grading criteria.

Skills: The primary means to assess skills is through direct observation, usually with a structured assessment tool, such as a checklist or protocol. Other common assessment tools, especially for preservice education, include objective structured clinical exams (or OSCE), structured feedback forms and self-assessment tools.

Attitudes: Knowledge of professional ethics and principles of practice can be assessed with written exams. Attitudes are often assessed during direct observation of skills performed. Most objective structured clinical exams include aspects of the behavioral components of attitudes, and most structured feedback forms for preceptors include some type of assessment of the student’s attitude. Jhpiego checklists for skill assessment include behavioral components of attitudes in order to help assess them.

Every Jhpiego learning resource package includes the tools you need for assessing knowledge and skills and guidance on criteria for qualification. Let’s look at tools commonly used.
Record review is particularly useful for rarely observed events-managing pre-eclampsia or shock, for example. Here are some considerations for effective record reviews:

**Animate bullet one**

- You must have established criteria for the review; for example, here are the criteria for a record review to evaluate the use of the partograph during labor. Criteria make the record review more objective. **Animate review criterion text box.**

- Criteria may include medications prescribed, procedures performed, laboratory tests ordered, consultations or diagnoses.

**Disappear review criterion text box and animate the second and third bullet in order.**

- Six to eight random medical records are required for meaningful interpretation, and these are records are then reviewed using the criteria.

---

**Validating Exams**

A. Answer the question to your best ability
B. Identify what percent of just competent, new learners would perform this correctly?
C. Is it well stated or does it need to be revised?

Average the percentages of just competent, new learners who get the question right for each question, then average that to obtain criterion referenced pass score.

**Process provides both a criterion-referenced pass score and helps correct and remove bad questions. Critical to use subject matter experts who know and understand your audience.**
The next step in instructional design process, per most references, is to select your assessment methods.

Many instructional design references suggest writing questions and creating your assessment items now, and learning activities later.

In this course, we will identify the assessment methods (direct observation, multiple choice, essay, quiz, etc.) now; then create the specific assessment items after activities are identified.

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>Assessment Methods</th>
<th>Learning Activities</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Give a sample from a skills course, sequence the learning objectives consistent with the guidance for performance, page 38.</td>
<td>In a case study, arrange the learning objectives in an appropriate sequence.</td>
<td>Provide a list of competency-based objectives for the proper order (individuals or small group) control.</td>
<td>Handout: Different types of counseling clients. Case studies for different types of counseling clients.</td>
</tr>
<tr>
<td>Give a range of client case studies, identify the appropriate family planning counseling tasks for the different types of clients.</td>
<td>Provide handouts on different types of counseling clients and related family planning counseling tasks for each type of counseling client.</td>
<td>Exercise: learning objectives misordered. Needs answer key w/correct order and rationale. Learning for Performance, step 6, pg 38.</td>
<td></td>
</tr>
<tr>
<td>Given a range of client case studies, identify the appropriate family planning counseling tasks for the different types of clients.</td>
<td>In a matching exercise, correctly identifies the appropriate family planning counseling tasks for each type of counseling client presented in a case study.</td>
<td>Exercise: learning objectives misordered. Needs answer key w/correct order and rationale. Learning for Performance, step 6, pg 38.</td>
<td></td>
</tr>
</tbody>
</table>
## Developing Assessment Items Part II Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER:</th>
<th>DURATION: 5 HRS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

**Topic:** Developing Assessment Items: Part 2

**Session objectives:** *By the end of this session, learners will be able to:*

1. Presented with a range of samples, critique and improve questions consistent with the criteria provided in the reference manual.
2. Given learning objectives, create test items to measure achievement of the learning objectives.
3. Given learning objectives, construct checklists to measure competency of communication, psychomotor or clinical decision-making skills.

### Methods and Activities

<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction:</strong> Refer back to the Training Development Model. Remind the group that now they are ready to create the specific assessment items needed based on the current instructional planning worksheet. (10 min)</td>
<td>ID manual Chap 6  Instructional Planning Blueprint: <em>should now have objectives, assessment methods and activities</em>  Basic item writing principles I and II PowerPoint  Handout: Writing Items Handout  Optional: Case article on writing items (provide electronically if not in print)</td>
</tr>
<tr>
<td><strong>Presentation: Item Characteristics:</strong> Refer to Step 7, page 42 in Learning for Performance. Discuss the different assessment methods-and which are appropriate for which types of tasks. Discuss the use, advantages and disadvantages of common assessment options (multiple choice, true/false questions, short answer/essay, checklists, direct observation, case study interview). Use the Basic Item Writing Principles I and II only to reinforce information not covered in the discussion. Reinforce with the ID manual, Chapter 7. (45 min)</td>
<td></td>
</tr>
</tbody>
</table>
| **Activity:** Critique assessment items and compare to objectives (60 min):  
- Divide into small groups.  
- Each group has 30 minutes to work.  
- Provide the “Writing Assessment Items” handout, which summarizes the main tips from the PowerPoint.  
- Review the worked examples in the ‘Question Hall of Shame’ exercise. Provide each group with a different objective and corresponding assessment items from different assessment methods and ask them to improve the questions.  
- Each group has 5 minutes to read out their objective and assessment items and then give their improvements. Use the ‘Question Hall of Shame” Answer Key to review suggested improved questions. | Exercise and Instructor Key: Question Hall of Shame  Handout: Guidelines for exam validation  Handout: Guidelines for checklist validation  Sample checklists: Communication: VCT  Counseling  Psychomotor: IUCD insertion  OSCE station checklist  Clinical Decision-Making: Antenatal Management of Complications OSCE station tool |
| **Activity: Write assessment items (45 min)**  
- Divide into small groups.  
- Each group has 40 min to work. Working in small groups: using instructional planning worksheet, construct one multiple choice, one T/F question for each objective.  
- Collect and review in the evening, provide feedback and improvements for each question. Return to the learner the next day and review some examples of how you improved questions the following morning. |  |
<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discussion:</strong> Briefly review the Guidelines for exam and checklist validation handouts. Discuss options for establishing a passing score—note that checklists are often pass/fail—rather than scored, but they may be scored for OSCE stations. (20 min)</td>
<td></td>
</tr>
<tr>
<td><strong>Discussion:</strong> Methods for assessing types of skills: direct observation, clinical decision making tools. Discuss the challenges and strategies for assessing clinical decision-making skills. (15 min)</td>
<td></td>
</tr>
<tr>
<td><strong>Checklist review:</strong> Refer to the checklist examples. In the large group, discuss common characteristics of checklists. Note the variations: communication skills not always in a linear order, whereas psychomotor skills often are, clinical decision making checklists must identify the learner’s ability to make the appropriate decision. (30 min)</td>
<td></td>
</tr>
</tbody>
</table>
| **Activity:** Draft a checklist (90 min)  
- Briefly review the steps to creating a checklist. As a group, using the guidance in the Jhpiego ID manual Chapter 6, pg 6-5 and 6-6. (20 min)  
- Divide into small groups.  
- Each group has 45 minutes to work.  
- Provide a skill identified in the learning objectives and ask them to use the guidance provided in ID manual, Chapter 6, pg 6-5 and 6-6 to draft a checklist. Or they can revise an electronic copy of a checklist that addresses a similar type of skill. (45 min)  
- Post or print out for review and discussion. (20 min) | |
| **Summary/Reinforce key points (15 min):**  
- Each objective should be assessed.  
- Critical objectives may be assessed several times and in different ways.  
- Assessing skills requires objectivity. | |

Clinical decision-making skills can be assessed with written exams or clinical simulations or case studies.
Objectives

- Describe the advantages and disadvantages of constructed and selected response items.
- Describe the advantages and disadvantages of true false items.
- Follow the rules associated with the development of effective true false items.
- Appropriately construct a well designed true false item.
- Follow the rules associated with the development of effective matching items.
- Appropriately construct a well designed matching item.

Constructed Response Items

- Fill in the blank
- Essays
  - Constricted response
  - Extended response
- Case studies
- Written Reports

PROS? CONS?

- Constructed Response:
  - Participant tells you what they know.
  - Recall dependent
  - Easy to write items
  - Test only a few objectives
  - Difficult to score
  - Less reliable
**Item Formats – Selected Response**

- True-False
- Multiple True-False
- Matching
- Multiple Choice

**PROS? CONS?**

**Participant selects from a list of given options.**
**Participant selects correct answer.**
**Difficult to write items**
**Difficult to test clinical reasoning**
**Easy to score**
**Highly reliable**

**Slide 5**

**True False - Advantages**

- Very easy to write
- Can quickly test many objectives

**Slide 6**

**True False - Disadvantages**

- High basement score - 50% chance of being correct by guessing
- Encourage memorization of rote fact
- Do not allow for shades of grey
- Test-wise students can raise basement score
Sample Question

A health care provider should monitor growth and development every time they meet an HIV exposed child.

T/F

Sample Question

A health care provider should monitor growth and development every time they meet an HIV exposed child.

T/F

Ambiguous

- What is the skill of the HCP?
- What is the HCP assigned to do?

Sample Question

HIV/AIDS can be transmitted to infants through breast milk

T/F
Slide 10

Sample Question

HIV/AIDS can be transmitted to infants through breast milk
T/F

Trick Questions…
- HIV/AIDS not HIV/Aids
- Virus not AIDS transmitted

---

Slide 11

Sample Question

A Health Care Worker should recommend nutritional supplementation every time she or he sees an HIV infected child.
T/F

---

Slide 12

Sample Question

A Health Care Worker should recommend nutritional supplementation every time she or he sees an HIV infected child.
T/F

The word EVERY is a specific determiner
- What if a HCW sees the child three days in a row?
Sample Question

HIV I is NOT MORE prevalent than HIV II
T/F

Has a negative
- Not
- NOT with MORE makes item even MORE difficult

Sample Question

Studies have demonstrated that MC can decrease transmission of HIV to men and increase transmission of HIV to women
T/F
Sample Question

Studies have demonstrated that MC can decrease transmission of HIV to men and increase transmission of HIV to women
T/F

Testing two propositions, one is true and one is false. How do you know what the student knows from this question?

Sample Question

According to the ANECCA Comprehensive Paediatric HIV and AIDS course Trainers Guide, in industrialized countries in North American and Europe, paediatric HIV infection has been controlled.
T/F

Sample Question

According to the ANECCA Comprehensive Paediatric HIV and AIDS course Trainers Guide, in industrialized countries in North American and Europe, paediatric HIV infection has largely been controlled.
T/F Testing recall of direct quote in industrialized countries in North America and Europe, pediatric HIV infection has largely been controlled.
True False - Alternatives

- Other two choice items
  - HIV Prevention / Treatment
  - Essential step / Non essential step
- Multiple True False
  - Combined True False and Fill in the Blank
  - Consider combination with case study

Sample Question

Which of the following steps are Appropriate when managing clients on Antiretroviral therapy?

<table>
<thead>
<tr>
<th></th>
<th>Appropriate</th>
<th>Non-appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review patient file</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discuss patient file with family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assess Adherence to other medications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review available lab results</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model from Existing MCQ

One of the following HIV enzymes is not important in the replication of the Human Immunodeficiency virus
a) Carboxylase
b) Protease
c) Reverse transcriptase
d) Integrase

Using this multiple-choice question is how you can change it into a true-false question.
Model from Existing MCQ

State whether each of the following HIV enzymes is IMPORTANT in the replication of Human Immunodeficiency virus

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carboxylase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse Transcriptase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrase</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sample Question

The risk of mother to child transmission of HIV infection increases when the Maternal CD4 count is low.

T/F

If false, explain why:

________________________________________
________________________________________
________________________________________
________________________________________

This is another example of how to create better true-false questions, but you will need an answer key for the rationale.

Matching

- Can be difficult to write
- High basement score depending on how it is written
- May be confusing to some students
### Slide 25

**Sample Question**

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion Question</td>
<td>Lists should be kept uneven</td>
</tr>
<tr>
<td>True False</td>
<td>Easily modeled from MCQs</td>
</tr>
<tr>
<td>Multiple True False</td>
<td>Can quickly test many objectives</td>
</tr>
<tr>
<td>Matching</td>
<td>Construction item</td>
</tr>
</tbody>
</table>

### Slide 26

**Sample Question-Better**

<table>
<thead>
<tr>
<th>Column B</th>
<th>Column A</th>
</tr>
</thead>
<tbody>
<tr>
<td>True False</td>
<td>Unreliable</td>
</tr>
<tr>
<td>Multiple True False</td>
<td>High basement score</td>
</tr>
<tr>
<td>Essays</td>
<td>Quick test many objectives</td>
</tr>
<tr>
<td></td>
<td>Construction item</td>
</tr>
<tr>
<td></td>
<td>Easily modeled from MCQs</td>
</tr>
<tr>
<td></td>
<td>Difficult to score</td>
</tr>
</tbody>
</table>

Why is this question better than the previous? (more items to select from)
**Item Writing Principles II Narration Notes**

**Slide 1**

**Item Writing Principles II**

**Slide 2**

**Enabling Objectives**

- State the advantages and disadvantages of using multiple choice items for testing
- Describe the components of well structured multiple choice item
- Apply guidelines to develop quality multiple choice items
- Apply guidelines for using item shells to develop new questions
- Follow guidelines for developing items that measure higher order thinking and clinical decision making

**Slide 3**

**Multiple Choice Advantages**

- Low basement (guessing) score
- Easily analyzed using statistics
- Easy to score
- Can test knowledge and critical thinking skills
Multiple Choice Disadvantages

- More challenging to write, especially at higher levels
- Probably cannot test synthesis
- Test-wise students can raise basement score if questions poorly written

Multiple Choice Anatomy

Which menu selection contains the MOST iron-rich combination of foods?

A. A salad of iceberg lettuce, cucumber, and carrots, a turkey sandwich on a roll and milk
B. Egg salad sandwich, lettuce and tomato, and orange juice
C. Tuna sandwich, lettuce and tomato, and milk

Relate items to instructional objectives.
Test at the same level of learning as the objectives are designed to assess.

Write items to reflect different levels of learning (some on recall, more on analysis or application).

Focus on important concepts (don’t test trivial facts, focus on testing what matters).

Examples of Objectives and MCQs for three levels of learning

<table>
<thead>
<tr>
<th>Level</th>
<th>Objective</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge (learner must recall memorized information but not explain or apply it)</td>
<td>State the average effective radiation dose from chest CT</td>
<td>What is the average effective radiation dose from chest CT?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. 1mSv</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. 8 mSv</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. 16 mSv</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D. 24 mSv</td>
</tr>
</tbody>
</table>
Slide 7

Objectives and MCQs…

<table>
<thead>
<tr>
<th>Level</th>
<th>Objective</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined comprehension and application (learner must demonstrate an ability to use, not just explain, new information, applying rules, methods, concepts, principles, laws or theories)</td>
<td>Compare the radiation exposures from different radiologic examinations</td>
<td>Which of the following imaging examinations is associated with the HIGHEST effective radiation dose? A. Abdomen/pelvic multidetector CT B. Coronary artery multidetector CT C. Conventional pulmonary D. Angiogram E. Digital pulmonary F. Angiogram</td>
</tr>
</tbody>
</table>

Slide 8

Objectives and MCQs…

<table>
<thead>
<tr>
<th>Level</th>
<th>Objective</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem solving (learner must understand a concept’s components and their relationships to each other, and analyze information)</td>
<td>Explain the effects that various factors have on radiation dose from chest CT</td>
<td>Which of the following would decrease the radiation dose from chest CT the LEAST? A. Decreasing mA from 250 to 125 B. Decreasing kVp from 140 to 120 C. Decreasing the pitch from 2 to 1 D. Decreasing scan time from 1 to 0.5</td>
</tr>
</tbody>
</table>

Slide 9

Item Shells

- A tool for new item writers
- Can develop new items from shells constructed from items with good track records

Which is an example of (any concept) A. Example B. Plausible non-example C. Plausible non-example

Refer to the case handout for great guidance on using item shells for the basic sciences.
Example of Patient Vignette

- Age, Gender (eg, A 45-year-old man)
- Site of Care (eg, comes to the emergency department)
- Presenting Complaint (eg, because of a headache)
- Duration (eg, that has continued for 2 days).
- Patient History (with Family History ?)
- Physical Findings
- +/- Results of Diagnostic Studies
- +/- Initial Treatment, Subsequent Findings, etc.

Refer to Case reference, page 38

Item Modeling

Design new items from existing items by altering:
- Setting (Hospital to Homebirth)
- Midwifery/Nursing Tasks (Management Process – Data Collection to Planning)
- Type of Case (AP to IP)

Multiple Choice Testing Clinical Judgment?

- Provide data requiring interpretation
- Force use of the management process
- Require application of principles
- Require evaluation of two or more plans
Context-dependent item sets

- Used to assess/measure/evaluate
  - critical thinking
  - problem-solving
  - decision-making

Item Sets Advantages

- Place items within a context, i.e., a clinical case study
- Can be used to stimulate clinical decision making
- Efficient means of presenting a complex data set

Item Sets Disadvantages

- Tendency to give away answer in related questions (context dependent cues)
- Negative influence on the distribution of content on the exam
Construction of Context-dependent Item Sets

- Organize clearly
- Keep reasonably short
- Present data required for assessment or planning
- Consider using pictures, photos, diagrams, graphs, charts, videos.

Refer to Case reference, Section II, page 44 to review examples

Content of Context-dependent item sets

- Introductory material
  - Description of a clinical situation
  - Patient data
  - Research findings
  - Issues associated with clinical practice
  - Clinical scenarios

Context-dependent item sets - writing the items

- If the intent is to evaluate problem solving, decision making and critical thinking,…
  - The introductory material needs to provide sufficient information for analysis
  - The questions should focus on the underlying thought process used to arrive at an answer
### INSTRUCTOR

#### Objectives
The purpose of this activity is to:
- Identify and correct poorly constructed questions for a mid-course knowledge assessment

#### Resources/Materials Needs
- Exercise: Question Hall of Shame
- Learning for Performance: pp. 54 and 55
- Basic Item Writing Principles II

#### Instructions
- Divide learners into small groups and ask each group to review the sample questions listed below. Alternatively, display the question as a PowerPoint and ask for or “choose” a volunteer to review one of the sample questions. Ask learners to critique and re-write the question using the principles described in the graphic presentation Basic Item Writing Principles II.

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>NOTES</th>
<th>SUGGESTED REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A health care provider should monitor growth and development every time they meet an HIV exposed child.</td>
<td>Ambiguous</td>
<td>1. HIV-exposed children should be monitored on a regular basis for abnormalities of growth and development</td>
</tr>
<tr>
<td>T/F</td>
<td></td>
<td>T/F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. HIV/AIDS can be transmitted to infants through breast milk.</td>
<td>Trick Questions...</td>
<td>2. HIV can be transmitted to infants through breast milk</td>
</tr>
<tr>
<td>T/F</td>
<td>HIV/AIDS not HIV/AIDS</td>
<td>T/F</td>
</tr>
<tr>
<td></td>
<td>The virus, not AIDS, is transmitted</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testing two propositions, one is true and one is false. How do you know what the student knows from this question?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Studies have demonstrated that male circumcision can:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Decrease transmission of HIV to men</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Decrease transmission of HIV to women</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Decrease transmission of HIV to men and women</td>
<td></td>
</tr>
<tr>
<td>QUESTION</td>
<td>NOTES</td>
<td>SUGGESTED REVISION</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>--------------------</td>
</tr>
<tr>
<td>4. HIV I is NOT MORE prevalent than HIV II.</td>
<td>Has a negative • Not • NOT with MORE makes item even MORE difficult</td>
<td>4. HIV II is more prevalent than HIV I</td>
</tr>
<tr>
<td>5. It is recommended that a woman wait at least 2 years after a live birth before planning the next pregnancy. The benefits of a 2 year birth-to-pregnancy interval include all of the following, EXCEPT:</td>
<td>Assuming the woman’s last pregnancy was her first, then she will be less likely to be pre-eclamptic in the next pregnancy. Better to ask for the “correct”, not the “wrong” answer. Keep options grammatically consistent with the stem.</td>
<td>5. A benefit of a 2 year birth-to-pregnancy interval is: a. It is LESS likely the mother will be anemic b. It is LESS likely the newborn will survive to age 2 and beyond c. It is MORE likely the mother will have pre-eclampsia</td>
</tr>
<tr>
<td>6. Which of the following is essential for every pregnant woman? a. Two doses of tetanus toxoid injection one month apart b. Four antenatal check-ups c. Early registration d. Administration of 100 tablets of IFA e. All of the above</td>
<td>Avoid “none of the above” or “all of the above” Avoid use of abbreviations Ask for the correct answer</td>
<td>6. Which of the following is essential for every pregnant woman? a. One dose of tetanus toxoid injection one week before delivery b. Monthly antenatal check-ups c. Daily oral iron</td>
</tr>
<tr>
<td>7. The Essential Drug List (EDL) in Afghanistan: a. Is updated by WHO every year b. Contains all drugs recommended for BPHS and higher levels of care c. Is used only by physicians d. None of the above</td>
<td>Avoid “none of the above” or “all of the above” Keep options similar in length</td>
<td>7. The Essential Drug List (EDL) in Afghanistan: a. Is updated by WHO every year b. Contains all drugs recommended for BPHS c. Is used only by physicians</td>
</tr>
<tr>
<td>QUESTION</td>
<td>NOTES</td>
<td>SUGGESTED REVISION</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>-------------------</td>
</tr>
<tr>
<td>8. According to the survey done in 2006, the current status of family planning services was as follows:</td>
<td>Avoid “K Type” items (A only, A + B but never C on Sunday): test cognitive or reading ability rather than knowledge of item content</td>
<td>8. A 2006 survey of male circumcision services showed:</td>
</tr>
<tr>
<td>a. Long waiting lists, up to four (4) months</td>
<td></td>
<td>a. Long waiting lists, up to four (4) months</td>
</tr>
<tr>
<td>b. Low priority among service providers</td>
<td></td>
<td>b. Adequate supplies and equipment</td>
</tr>
<tr>
<td>c. Shortages of supplies/equipment</td>
<td></td>
<td>c. Good record-keeping</td>
</tr>
<tr>
<td>d. Additional reproductive health education was given in the health facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Good record keeping in most areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Which of the above statements are correct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 1, 2 and 3 only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. 3, 4 and 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. 2, 3 and 4 only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. All of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Which one of the following is not a misconception:</td>
<td>Double negative makes question additionally confusing; “not” and “mis”conception. Avoid negatives and ‘not’-confusing</td>
<td>9. Which one of the following statements is true about the IUD:</td>
</tr>
<tr>
<td>a. IUDs can migrate to the brain and cause infection</td>
<td></td>
<td>a. IUDs can migrate to the brain and cause infection</td>
</tr>
<tr>
<td>b. IUDs should only be offered to married women</td>
<td></td>
<td>b. IUDs should only be offered to married women</td>
</tr>
<tr>
<td>c. IUDs can be inserted immediately after delivery</td>
<td></td>
<td>c. IUDs can be inserted immediately after delivery</td>
</tr>
<tr>
<td>10. HIV prevalence in Zambia is:</td>
<td>Place options in logical order (e.g., numerical, chronological).</td>
<td>10 HIV prevalence in Zambia is:</td>
</tr>
<tr>
<td>a. 17%</td>
<td></td>
<td>a. 12.3%</td>
</tr>
<tr>
<td>b. 14.3%</td>
<td></td>
<td>b. 14.3%</td>
</tr>
<tr>
<td>c. 20%</td>
<td></td>
<td>c. 17%</td>
</tr>
<tr>
<td>d. 12.3%</td>
<td></td>
<td>d. 20%</td>
</tr>
<tr>
<td>11. Which one of the following is a strategy for HIV prevention:</td>
<td>Distracters should be sensible and plausible even when incorrect.</td>
<td>11. Which one of the following is a strategy for HIV prevention:</td>
</tr>
<tr>
<td>a. Use condoms</td>
<td></td>
<td>a. Use condoms</td>
</tr>
<tr>
<td>b. Keep your fingers crossed</td>
<td></td>
<td>b. Take ARVs before sex</td>
</tr>
<tr>
<td>c. Pray</td>
<td></td>
<td>c. Use contraceptive gel</td>
</tr>
</tbody>
</table>
### QUESTION

12. In which of the following conditions MUST a woman be referred to an FRU?

   a. Eclampsia, obstructed labor, fetal distress, severe anemia, previous Cesarean section
   b. Hypertension, constipation, obstructed labor, bleeding/spotting, severe anemia
   c. Fever, constipation, breathlessness, nausea and vomiting, severe anemia

### NOTES

- Avoid use of abbreviations such as FRU.
- Avoid long options.
- Keep options similar length.
- Write options to be independent and not overlapping.
- Avoid imprecise terms/cues such as MUST—does MUST in this context mean immediately? Would it be okay to refer the patient the next day?

### SUGGESTED REVISION

12. Which of the following conditions requires referral to the district hospital?

   a. Eclampsia
   b. Fever
   c. Constipation
LEARNING ACTIVITIES

Selecting Learning Activities within a Course, Learning Activities Part I Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER:</th>
<th>DURATION: 5 HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic: Selecting Learning Activities Within a Course, Learning Activities Part I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Session objectives:</strong> <em>By the end of this session, learners will be able to:</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Given specific learning objectives, design realistic and relevant learning activities and exercises that engage learners in purposeful learning and help them:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Master the learning objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Successfully complete the learning assessments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Apply what they’ve learned on the job</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Based on the identified learning activities, select engaging and appropriate teaching methods to help learners accomplish the learning objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Using identified learning activities, organize the learning activities to support increasing mastery of objectives.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction:</strong></td>
<td>Instructional planning worksheet: <em>now includes objectives and assessment methods from previous work</em></td>
</tr>
<tr>
<td>Ask the group to recall a learning activity that most helped them to perform a skill, manage problem, or make a clinical decision in a real context. Then ask them to recall a learning activity that they felt was a waste of their time in learning a similar skill or behavior. (10 minutes)</td>
<td></td>
</tr>
<tr>
<td><strong>Presentation:</strong></td>
<td>ID chapters 5, table 5-2 and Chapter 8, and Learning for Performance step 8, box 14</td>
</tr>
<tr>
<td>Review ‘Relevant and Purposeful’ PowerPoint presentation. Reinforce the importance of congruence between objective, assessment and activity. What practice activity is MOST CLOSELY linked to your desired behavior? (30 min)</td>
<td></td>
</tr>
<tr>
<td><strong>Discussion:</strong></td>
<td>Relevant and Purposeful Learning Activities PowerPoint</td>
</tr>
<tr>
<td>Review both the table in the ID manual (5-17 and 5-18) and Box 14 in Learning for Performance, step 8 for a nice summary of different learning activities that are appropriate based on the desired type of skill or knowledge. Note that attitudes must be addressed as demonstrated behaviors. Review the content in step 8 in learning for performance-the purpose of learning activities-is to engage the learner in learning, and help meet the objective. (20 min)</td>
<td></td>
</tr>
<tr>
<td><strong>Activity:</strong> Using the ‘Relevant and Purposeful’ Exercise, complete the first example as a large group. (10 min)</td>
<td></td>
</tr>
<tr>
<td>Divide into small groups. In small groups, assign each group one of the objectives.</td>
<td></td>
</tr>
<tr>
<td>Each group has 20 minutes to work on their objective</td>
<td></td>
</tr>
<tr>
<td>Report out to the large group. Use the ‘Relevant and Purposeful’ answer key to guide your feedback; emphasize the importance of relevant and purposeful activities. (60 min total)</td>
<td></td>
</tr>
<tr>
<td><strong>Activity:</strong> Selecting learning activities that match well with learning objectives (90 min):</td>
<td></td>
</tr>
<tr>
<td>Using the Instructional Planning Worksheet with sample content, do two objectives as a large group; identifying</td>
<td></td>
</tr>
</tbody>
</table>

Handout: Making PowerPoint Work for Your Audience
relevant, purposeful and congruent activities to help the learner demonstrate mastery of the objective. (15 min)

- Divide into small groups.
- Each group has 60 minutes to work.
- Each group should use a copy of the instructional planning worksheet with assessment items identified from the earlier activity. Provide each group with a different learning objective, using Box 14 in learning for performance and table 5-2 in the ID manual. Ask them to identify an activity that most closely matches with skill or behavior targeted in the learning objective. They should be ready to give the rationale for their selection.
- Each group has 5 minutes to read out their assigned learning objective, review their chosen method and give rationale for their selection.
- The larger group has 30 minutes for feedback and discussion.

### Selecting Teaching Methods
Discuss the rationale for choosing a particular training approach or blend of approaches for motor skills and for intellectual skills. Review the concept of ‘stair step’ and ‘immersive approaches’. Referring back to the identified learning activities, identify the role of the facilitator or facilitator tasks for each activity. The selected learning activities will determine the teaching methods used. (20 min)

### Presentation
Review the ‘Effective Use of Powerpoint’ presentation. Reinforce the limited role of lecture in learning-mainly for recall and simple concepts. Refer to the ‘Making Powerpoint work for your audience’ handout as a reference. (30 min)

### Organize Learning Activities Activity:
Large group discussion: Using the instructional blueprint, which now should include objectives, assessment methods and activities-discuss the organization of activities. Refer back to page 38 in Learning for Performance and see if the organization of activities is consistent and provides for increasing learner independence and adequate feedback. (30 min)

### Summary/Reinforce key points (15 min):
- Emphasize the importance of learning for mastery.
- Review the importance of choosing learning activities that are closely related to the desired change in behavior or skill ability.
- Output is completed instructional planning worksheet with objectives, assessment methods and activities.

### Review/Evaluation:
Relevant and Purposeful Learning Activities Narration Notes

Slide 1
Relevant and Purposeful Learning Activities

Slide 2
Objectives

- Define ‘relevant’ and ‘purposeful.’
- Justify reducing the use of lecture.
- Describe the benefits of ‘stair-step’ and ‘immersive’ learning environments.
- Using your instructional planning worksheet, identify relevant learning activities.

Slide 3
Learning must be...

- Relevant
  Learning relates directly to the objective.
- Purposeful
  Learning involves ‘mental processing’ and practice with feedback.
Stair-Step Learning Environments

- Present content, then practice and feedback
- Instructor/Facilitator presents, assigns practice, provides feedback
- Equivalent learner and facilitator effort

Effective for learning new routine skills

Use for procedural or new skills; not for learners with some existing experience in the related skill.

Immersive Learning Environments

- “Whole-task”
- “Immerse” learner in simulation similar to work context
- Best for learners with experience or relevant existing skills
- Instructor/Facilitator supports learners as they complete assignments

Effective for helping learners develop strategic or decision-making skills

Use for learners who have some experience already; has the best transfer into workplace performance.

Lectures/Presentations

- Less effective than most other learning activities
- Teach facts and simple concepts
- Improve by adding response activities
- Use methods that help learners process information
  - Do not use for: procedural tasks, clinical decision-making, strategic decision-making

Response activities (like answering questions) help learners master new content.

Methods that help learners process include: using visuals and reducing text, use simple drawings rather than complex.
The Power of Worked Examples

- Mirror the work environment
- Ask questions about the example

Speeds learning

Worked Example: Critiquing Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Revision</th>
<th>Explanation</th>
</tr>
</thead>
</table>
| 1. A health care provider should monitor growth and development every time they meet an HIV exposed child. T/F | 1. HIV-exposed children should be monitored on a regular basis for abnormalities of growth and development. T/F | Ambiguous
• What is the skill of the HCP?
• What is the HCP assigned to do?
• Should HCP monitor for growth and development at every visit if seeing the child 3X per week? |
| 2. HIV/AIDS can be transmitted to infants through breast milk. T/F | 2. HIV can be transmitted to infants through breast milk. T/F | Trick Question
• HIV/AIDS, not HIV/Aids
• The virus, not AIDS, is transmitted |

This is an example of a worked example; provides the answers to why certain questions are weak and how to improve them.

Learners would go on to improve other questions.

The worked example helps explain rationale and decision making, and makes learning more efficient.

Which practice activity is most effective?

1. List the 3 features of an Excel formula.
2. Select the correctly formatted Excel formula:
   a) =4C X9F
   b) =4C/3D
   c) 2B +3A=
3. Enter the formula in the spreadsheet to calculate 3rd quarter profit.

Avoid A! Recall does not lead to learning…

Option 3 is the best exercise-immersive, and is a better reflection of the desired work performance.
Slide 10

How Much Practice to Include?

- Consequences of error
- Acceptability of job aids
- Complexity of task
- ‘Spaced’ practice results in better retention
- Consider ‘spacing’ training with practice

Provide time for practice for each objective.

Determine how much time to allow for practice based on these factors.

Consider that “spacing” or spreading out practice over time results in better retention; spaced training more effective than one-time interventions.

Slide 11

Selecting Activities: Ask yourself:

- Does learning relate *directly* to the objective?
- Does the activity involve ‘mental processing’ and practice with feedback?

Slide 12

Sample Activities

<table>
<thead>
<tr>
<th>Type of Skill or Knowledge</th>
<th>Suggested Learning Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Readings, exercises, Job Aids</td>
</tr>
<tr>
<td>Psychomotor Skills</td>
<td>Demonstration, practice and feedback: repetition</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>Demonstration, practice and feedback: role plays, video, feedback and behavior modeling important</td>
</tr>
<tr>
<td>Clinical Decision Making</td>
<td>Case studies, clinical simulations, worked examples that provide rationale for decisions, record review and discussion for work involving clients</td>
</tr>
<tr>
<td>Strategic Thinking Skills</td>
<td></td>
</tr>
<tr>
<td>Attitudes</td>
<td>Assessed through demonstrated behaviors, study of professional ethics, demonstration both of desired and non desired behaviors, model should be admired or respected by learners, self-reflection/journaling: role plays</td>
</tr>
</tbody>
</table>
Consider Congruence

<table>
<thead>
<tr>
<th>Objective</th>
<th>Assessment Method</th>
<th>Learning activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>During at least one client group session in clinic, counsel women about ways to prevent cervical cancer</td>
<td>Direct observation: in a role play, provides counseling for cervical cancer prevention</td>
<td>Using a role play to demonstrate cervical cancer prevention counseling. In trios, learners practice counseling and receive feedback. Rotate every 10 minutes.</td>
</tr>
</tbody>
</table>

When selecting activities, make sure they are congruent or consistent with the objective and how you will assess the objective.

Summary

- Avoid exercises that ask learners to ‘recall’ information
- Adjust practice based on criticality of task
- Keep lecture to a minimum
- Psychological activity and engagement needed for learning
Designing Learning Activities within a Course, Learning Activities Part II Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER:</th>
<th>DURATION 2 HRS</th>
</tr>
</thead>
</table>

**Topic:** Design Learning Activities Within a Course, Learning Activities Part II

**Session objectives:** *By the end of this session, learners will be able to:*
1. Given specific learning objectives, design and develop realistic and relevant learning activities and exercises that engage learners in purposeful learning and help them:
   a. Master the learning objectives
   b. Successfully complete the learning assessments
   c. Apply what they’ve learned on the job

<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction:</strong> Ask the group to recall the last time they developed a learning activity—what was it? What have they found to be helpful when developing learning activities? (10 minutes) Review the progress on the Instructional Planning Worksheet; now they will be developing the specific learning activities they have selected.</td>
<td></td>
</tr>
<tr>
<td><strong>Design and Develop learning activity (90 min total):</strong></td>
<td></td>
</tr>
<tr>
<td>• Divide into small groups.</td>
<td></td>
</tr>
<tr>
<td>• Refer back to the instructional planning worksheet. Each group should select several identified learning activities that need to be developed. Working in pairs, refer to the example learning activities, and using the exercise on creating case studies, role plays and clinical simulations and clinical simulation template, each group should develop at least 3 learning activities. Each group has 45 minutes to work.</td>
<td></td>
</tr>
<tr>
<td>• In plenary, randomly select one case study, one role play and one clinical simulation and ask a volunteer to present theirs to the large group. They don’t have to demonstrate it, just read it. As a group, will provide feedback on each one that was selected for discussion based on these criteria:</td>
<td></td>
</tr>
<tr>
<td>– Does it meet the learning objective? Is it relevant and purposeful? Are the instructions clear enough? How might it be improved? (45 min)</td>
<td></td>
</tr>
<tr>
<td><strong>Summary/Reinforce key points (15 min):</strong></td>
<td></td>
</tr>
<tr>
<td>• Effective activities engage the learners mentally and provide feedback.</td>
<td></td>
</tr>
<tr>
<td>• Activities must be relevant and purposeful—push the group not to automatically count on lecture. Lecture is not an activity but a teaching method.</td>
<td></td>
</tr>
</tbody>
</table>

**Review/Evaluation:**
## Selecting Content Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER</th>
<th>DURATION 1 HR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Topic:** Selecting content

**Session objectives:** *By the end of this session, learners will be able to:*

1. In a case study, distinguish content that directly supports successful completion of the learning activities from content that is not relevant.

<table>
<thead>
<tr>
<th>Methods and Activities</th>
<th>Materials/Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intro/Activity:</strong> Less is more. Provide participants with ‘Selecting Content’ example and give them 3 minutes to read; then refer them to the ‘essential only’ example of descriptive text. One is longer, dense with detail; the other contains most of the same info but less of it. Ask participants to comment on which one is easier to comprehend and remember—and why. (10 min)</td>
<td>Learning for Performance</td>
</tr>
<tr>
<td><strong>Discussion:</strong></td>
<td>Handout: Selecting Instructional Content</td>
</tr>
<tr>
<td>1. What the research says about the effect of non-essential content (bad for learning outcomes, ‘less is more’).</td>
<td></td>
</tr>
<tr>
<td>2. The benefits of including only essential content (helps with retention and learning outcomes). (10 min)</td>
<td></td>
</tr>
<tr>
<td><strong>Activity:</strong> Given a learning activity or objective, in pairs participants will select or create appropriate, essential content and then defend their decision. (40 min) Collect and review a few examples with the large group.</td>
<td></td>
</tr>
<tr>
<td><strong>Summary</strong></td>
<td></td>
</tr>
<tr>
<td>• Summarize key points found when discussing content.</td>
<td></td>
</tr>
<tr>
<td>• Essential content produces more learning.</td>
<td></td>
</tr>
<tr>
<td>• Non-essential content interferes with learning.</td>
<td></td>
</tr>
<tr>
<td><strong>Self-Review/Evaluation:</strong></td>
<td></td>
</tr>
</tbody>
</table>
Formative and Summative Training Evaluation Session Plan

<table>
<thead>
<tr>
<th>DATE</th>
<th>VENUE</th>
<th>SESSION NUMBER:</th>
<th>DURATION: 2 HRS</th>
</tr>
</thead>
</table>

**Topic:** Formative and Summative Training Evaluation

**Session objectives:** By the end of this session, learners will be able to:

1. Based on draft or existing materials, describe formative and summative evaluation approaches that will identify if the learning goals will be met by the draft course design.
2. Create a data summary chart and identify where to revise instruction.

**Methods and Activities**

**Introduction:**
Ask the group what they know about the terms ‘formative and summative’ assessment? This applies to how they will evaluate courses they design. Remind the group that a key instructional design principle is to test your assumptions-in the same way they should plan for formative evaluation of their course. Ask them to recall what they know about training evaluation and discuss it. (15 min)

**Content:** Review ‘Formative and Summative Evaluation’ PowerPoint, only reinforcing or covering content not covered in the discussion. (20 min)

**Activity:** Using Data Summary Charts. Transition to discussing the use of data summary charts for either formative or summative evaluation. Discuss purpose (identify weaknesses in instruction or questions) and review the example data summary table. Reinforce that the consistently low scores either indicate a poor question or that the content was not taught adequately. Assign the Data Summary Table exercise for the learners to complete in pairs. Discuss how data summary tables can be used to identify bad questions or problems with the course. (40 min)

**Discussion:** Use the action plan to plan for how the draft course will be evaluated. Identify who will do what and by when and document in the action plan electronically. (20 min)

**Summary/Reinforce key points** (15 min):
- Formative evaluation begins during design and should be planned for to make sure learning is relevant, effective and efficient.
- Low scores on data summary charts indicate problems.

**Materials/Resources**

- Formative and summative evaluation PowerPoint
- Handout: Formative Evaluation Guidance
- Example: Data Summary Table
- Exercise: Data Summary Charts
- Template: Action Plan
Objectives

- Describe the characteristics and purpose of formative and summative evaluation as it relates to instructional design.
- Determine who will participate in formative evaluation and how data will be collected.

Formative vs. Summative: Matching Question

<table>
<thead>
<tr>
<th>Formative</th>
<th>Summative</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of the day reactions</td>
<td>Final knowledge assessment</td>
</tr>
<tr>
<td>Final knowledge assessment</td>
<td>Pilot-testing</td>
</tr>
<tr>
<td>Pilot-testing</td>
<td>Service statistics or on the job changes in practice</td>
</tr>
</tbody>
</table>

- Reinforce these key points: formative evaluation is just like formative assessment.
- Evaluation of a training course for information gathering: how can it be improved?
- Summative evaluation is a final or formal evaluation.
- Total participants ability to master the objectives,
- Have services improved or changes been carried over into practice?
Answers

- Formative: Improve the quality of instruction
  - End of the day reactions
  - Pilot-testing
- Summative: Verify the effectiveness of the instruction
  - Final knowledge assessment
  - Service statistics or on the job changes in practice

Training Implementation

1. Reaction: Did they like it?
2. Learning: Did they master the objectives?
3. Application: On-the-Job Performance
4. Effect: Did service statistics change?

Adapted from Kirkpatrick Levels of Evaluation

Formative Evaluation

TEST YOUR ASSUMPTIONS!
- 1:1 with target learners
- Pilot test with representative group of 8-20
- Field test with first group
- Review of pilot test handout

Classic evaluation levels for training; but let’s look in detail at how you plan for formative evaluation in your course.

Begins in design with review of objectives and activities
Slide 7

### 1:1 with Learner

- **Clarity:** Is message clear?
- **Impact:** What impact will instruction have on learner attitudes and achievement of objectives?
- **Feasibility:** Given resources, how feasible is instruction?

Clarity: vocab, message complexity, introductions, explanations, conclusions, transitions

Impact: utility, confidence (not too easy, not too hard), satisfaction w/ skills learned

Feasibility: time, equip, resources

Select learners who represent the range of learners—some below, at and above average, or if range of experience matters—have range of experience represented

Occurs one on one, even if you sample from more than one learner

---

Slide 8

### Small Group Evaluation

- Determine if changes made from 1:1 were effective
- Identify any remaining problems

---

Slide 9

### Small Group Evaluation Process

- Representative group of learners
- Use materials as designed to be used

Debrief with targeted questions:
- Interesting?
- Understand what was expected to be learned?
- Materials were relevant?
- Exercises useful?
- Test measured objectives?
**Field Test**
- Is instruction ready for wide spread use?
- Identify and address any remaining problems
- Use representative group of learners

**Performance Context**
- Did the skills transfer?
- How are the skills used?
- What factors enhanced (or prevent) the use of skills?
- Does using the skills address the identified learning need? What is the evidence?
- How might training be improved?

**Summative Evaluation**
- Decide whether to keep or adapt instruction
- External evaluators preferred
- Evaluate:
  - Congruence
  - Content (complete, accurate and current?)
  - Design (instructional strategy/motivation)
  - Feasible
  - Current user (targets behaviors/motivation, resources
  - Clear data summaries and analysis
### Slide 13: Summative Evaluation

**ARCS**
- **Attention:** strategies used to gain and keep attention?
- **Relevance:** Relevant for target audience?
- **Confidence:** Is learner confidence maintained?
- **Satisfaction**

Can use “yes” “no” or a rating scale...

- **Attention:** appeal to emotions or the person, keep challenged intellectually, include human interest examples
- **Relevance:** are they convinced about relevance? What will they gain and how will it relate to their work or goals?
- **Confidence:** build on known, simple to complex, realistic scope
- **Satisfaction:** Do they like it, and do they get sufficient internal rewards from it?

### Slide 14: Summary

- Evaluate as you design
- Build in time for revisions after the field test
- Involve someone external for summative evaluation


During analysis and design, test your assumptions, evaluate and revise objectives, assessment methods and activities as needed.

Pilot testing: assume and plan for making revisions based on your pilot test. Be sure to allow time for this before you do your first field test, typically things need to be revised.

For objectivity, plan for an external assessor to do the summative evaluation of your course.
FINAL ASSESSMENT

Final Knowledge Assessment

Name: ______________________________  Date: ______________________________

Instructions: Select the single best answer to each question and either circle/tick your answer or write the letter in the blank next to the corresponding number on the answer sheet.

There are 3 types of questions on this knowledge assessment. Please read the instructions at the beginning of each section to be certain that you know the best way to answer the question.

MULTIPLE CHOICE QUESTIONS
Choose the one answer that is BEST from among the three answers. Each question is worth 3 points.

1. A first step when doing instructional design is:
   a. Selecting an appropriate instructional method
   b. Identifying exercises and examples to use
   c. Identifying the learning goal
   d. Deciding on the best way to sequence the instructional content

2. Deciding what to teach should be a function of:
   a. Content identified by the instructor
   b. Curriculum developed by prominent schools and programs
   c. Identified learning needs of participants

3. Research in educational psychology clearly shows that one of the best ways to ensure learner success is to:
   a. Build on what students already know about the content area
   b. Reinforce learning with positive feedback each time students respond correctly provide small-group instruction or one-to-one tutoring whenever possible

4. Which of the following is a well written learning objective?
   a. Students will identify instances of Italian architecture.
   b. From memory, students will calculate the rate a vehicle is traveling within 5 mph when given time and distance covered.
c. Instructors will explain the causes of WWII to middle school students.
d. Participants in the workshop will understand the relationship between students’
handicapping condition and appropriate instructional adjustment.
e. Learners will develop an appreciation for the balance in nature between predator and prey
animals within a specific geographic area.

5. Learning objectives should be based on
a. Content selected for the course
b. An outline of topics to be covered
c. Needs assessment findings
d. Courses taught at lower levels
e. Available quizzes

6. What is missing in the following objective? “The student will locate five of seven errors of
grammar.”
a. Conditions
b. Criteria
c. Behavior

7. A properly stated learning objective would include a description of which of the following?
a. What the instructor will do
b. How students will be taught
c. What students will do following instruction
d. What activities students will engage in during the instruction

8. A test is considered **valid** when it:
   a. Yields consistent scores
   b. Is based on an objective
   c. Measures what it intends
   d. Has a small error rate
   e. Doesn’t fluctuate over time
9. A test is considered to be **reliable** when it:
   a. Yields consistent scores
   b. Is an accurate portrayal of what students know
   c. Matches the behavioral objectives
   d. Is not norm-referenced
   e. Includes both selection and completion items

10. For any 3 of the following, identify one **most appropriate** activity for the following and provide a **rationale** for your choice. Do this for any 3 of the following 6. Each one is worth one point.
   a. Teaching faculty members how to lead effective class discussions.
   b. Teaching nursing students how to interview for jobs.
   c. Teaching nurses how to deal with disagreements with colleagues.
   d. Teaching faculty members how to design effective tests.
   e. Teaching primary care providers how to prevent infection.
   f. Teaching medical students how to recognize key ideas in textbook material.

11. The structure and organization of a lesson or session plan should be based on?
   a. Order of the content
   b. Nine events of instruction
   c. The demands of the media being used

12. Which instructional event is out of order and should occur later?
   a. Stimulate recall of existing knowledge
   b. Present the stimulus for learning
   c. Provide guidance and feedback
   d. Promote transfer and retention
   e. Assess the performance
1. Identify the five job performance factors:

_____________  _______________

_____________  _______________

_____________

Motivation or incentives, job expectations, feedback, supplies/infrastructure, skills and knowledge

2. Rewrite each of the following objectives and include the conditions, performance and criteria for each. You can select different verbs to describe performance if appropriate.

a. The learner will build an understanding of the earth/moon/sun system.

______________________________________________________________________

b. Students will demonstrate their ability to comprehend the effects of changes in inflation on their buying power.

______________________________________________________________________

c. In labs, teachers will demonstrate the relationship among pressure, volume, and temperature for students to see.

______________________________________________________________________

3. Briefly explain (in 1–2 sentences) why mastery learning is important for job performance.

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________
Final Knowledge Assessment Answer Key

Name: ______________________________ Date:____________________________

Instructions: Select the single best answer to each question and either circle/tick your answer or write the letter in the blank next to the corresponding number on the answer sheet.

There are 3 types of questions on this knowledge assessment. Please read the instructions at the beginning of each section to be certain that you know the best way to answer the question.

MULTIPLE CHOICE QUESTIONS
Choose the one answer that is BEST from among the three answers. Each question is worth 3 points.

1. A first step when doing instructional design is:
   a. Selecting an appropriate instructional method
   b. Identifying exercises and examples to use
   c. Identifying the learning goal
   d. Deciding on the best way to sequence the instructional content

2. Deciding what to teach should be a function of:
   a. Content identified by the instructor
   b. Curriculum developed by prominent schools and programs
   c. Identified learning needs of participants

3. Research in educational psychology clearly shows that one of the best ways to ensure learner success is to:
   a. Build on what students already know about the content area
   b. Reinforce learning with positive feedback each time students respond correctly provide small-group instruction or one-to-one tutoring whenever possible

4. Which of the following is a well written learning objective?
   a. Students will identify instances of Italian architecture.
   b. From memory, students will calculate the rate a vehicle is traveling within 5 mph when given time and distance covered.
   c. Instructors will explain the causes of WWII to middle school students.
d. Participants in the workshop will understand the relationship between students’ handicapping condition and appropriate instructional adjustment.

e. Learners will develop an appreciation for the balance in nature between predator and prey animals within a specific geographic area.

5. Learning objectives should be based on
   a. Content selected for the course
   b. An outline of topics to be covered
   c. Needs assessment findings
   d. Courses taught at lower levels
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6. What is missing in the following objective? “The student will locate five of seven errors of grammar.”
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______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

Focus is on learners’ mastering learning and new skills—not just scoring.