Faculty Development Program
Reference Manual
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MCSP is a global USAID initiative to introduce and support high-impact health interventions in 25 priority countries to help prevent child and maternal deaths. MCSP supports programming in maternal, newborn, and child health, immunization, family planning and reproductive health, nutrition, health systems strengthening, water/sanitation/hygiene, malaria, prevention of mother-to-child transmission of HIV, and pediatric HIV care and treatment. MCSP will tackle these issues through approaches that also focus on household and community mobilization, gender integration, and digital health, among others.

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Module TL01: Facilitating Learning

Module Overview

Introduction

Do you remember when you were a learner? Think about a course during which you learned a great deal. What did the facilitator do to create an environment that encouraged you to learn? What did you do that helped the learning process? Now that you are a facilitator, what will you do to facilitate the learning process?

One of the primary responsibilities of the professional health education facilitator is to facilitate the learning process. In this faculty development program, you will be completing a series of learning modules. This module, Facilitating Learning, is the first in a series of eight modules focusing on theoretical learning (i.e., how do you plan for and facilitate course sessions in the classroom). The other theoretical learning modules will focus on:

- Planning for Teaching
- Developing Objectives for Learning
- Selecting and Developing Learning Activities
- Selecting Assessment Methods
- Selecting Instructional Content
- Preparing Effective PowerPoint Presentations
- Facilitating Learning Activities

Your goal as a health professions facilitator is to ensure learners completing your course and program have the required knowledge, demonstrate the necessary attitudes and behaviors, and are competent performing the essential skills to be an effective health professional. Learners develop competence when facilitators:

- Provide some means of transfer of knowledge from the facilitator to the learner;
- Assist learners in developing skills by providing demonstration and opportunities for practice;
- Incorporate behavior modeling and attitude development in all learning activities and learner interactions; and
- Assess learner competence on a continuous basis to help them learn.

As a facilitator, your primary role is to assist learners in developing the knowledge, skills and attitudes that they need to become competent. The facilitator will be most effective, the learners most successful, if the facilitator assumes the role of facilitator and facilitator—rather than only a lecturer—during the learning process.

Assessment is useful when developing and evaluating competence. Throughout the learning process, the facilitator continually assesses the learners and provides them with feedback to help them learn and become more confident and competent.
Module Objectives
By the end of the module, learners will be able to apply the basics of facilitating learning for learners in a health professions program.

To meet this objective, you will:
- Describe the process for developing learner knowledge, skills, and attitudes needed for competency
- Describe the critical role assessment, measurement and evaluation plays in supporting competency development
- Recognize effective approaches for teaching and learning

Developing Knowledge, Skills, and Attitudes Needed for Competency
During the learning process, you will facilitate activities, use questions and provide feedback to help learners master the desired competencies. A “competency” is defined as a skill performed to a required level of competence. Anyone can perform the skill of taking blood pressure. To be competent, however, requires performing all the steps of the skill to a specified level of performance. When a learner can do this, the learner is considered competent.

Figure 1 shows how the combination of knowledge, attitudes and skills leads to the development of required competencies.

Figure 1. Competency Development

As a facilitator, you can help learners learn to think critically and apply that knowledge in clinical and work situations, by using the techniques listed below.
- Present material in a logical way. Use simple information, concepts, and tasks then move to more complicated content. For example, review basic physiology of postpartum hemorrhage before reviewing how to diagnose and manage the condition.
- Use a variety of learning activities. Using a various learning activities helps keep learners engaged, and different methods are more useful for some things than others. For example, a quiz is a great way to reinforce important information, whereas a case study or clinical simulation may be more useful for helping learners analyze and apply information.
Use audiovisual aids. Use appropriate audiovisual aids to help illustrate your points and keep learners interested.

Use questions to continually assess learners’ understanding. Facilitators should use questions to decide which areas are understood and which areas need additional attention. Written assessments—such as quizzes, questionnaires, or other exercises—can be used to assess learner comprehension before moving into skills practice.

Use questions and feedback. Engaging learners by using questions and providing feedback that reinforces correct information and assists learners in analyzing and applying new knowledge. For example, a learner may recall the relationship between tuberculosis and HIV infection, however, the use of questioning and feedback will help the learner analyze and apply this information during clinical practice. Questions and feedback can be provided through one-on-one interactions, group discussions, written or computer-based formats, use of case studies, and a variety of other means.

More information on building learner knowledge will be presented in other theoretical learning modules.

Developing Skills

Once the learner begins to develop a knowledge base, the facilitator can introduce basic skills. There are three phases in the transfer and development of skills. The goal is for learners to achieve competence performing all required skills.

1. **Acquisition:** During skill acquisition, or learning, the facilitator demonstrates or otherwise “breaks down the skill” into manageable pieces. Most skills learners are expected to learn during a course can be broken down into steps. Once learners have observed the demonstration, they are provided the opportunity to acquire the skills themselves, through practicing the skill and receiving feedback.

2. **Competency:** Skill competency means that the learner is competent in the skill—that is, the learner can perform the skill accurately and with some degree of confidence. An assessment tool (e.g., checklist) is used—by facilitators and learners—to develop and assess competency first in simulations in the classroom and then in the clinical setting.

3. **Proficiency:** Proficient health care providers perform efficiently, confidently and often without being conscious of the decisions they are making or of the individual steps involved in a clinical process or procedure. This level of skill develops only with repeated practice in the workplace.

More information on developing skills will be presented in the clinical and practical modules in this faculty development program.

Shaping Attitudes and Behaviors

Facts can help address attitudes. For example, providing evidence that HIV cannot be transmitted through casual social contact may help providers be less fearful and treat HIV-positive clients better. Addressing attitudes requires continual behavior modeling on the part of the facilitator, as well as opportunities for learners to reflect on and self-assess their own underlying feelings and beliefs. A facilitator can model the appropriate attitudes and values using “value clarification” exercises to help learners assess their attitudes and feelings. Activities that are especially useful for exploring and addressing attitudes are large and small group discussions, role plays, and anything involving thought-provoking scenarios in which the “right” answer is not clear.

Other theoretical learning modules will present more information on learning activities you can use to help shape the attitudes and behaviors of learners.

The Critical Role of Assessment, Measurement, and Evaluation

Education of health professions learners requires regular assessment of learning. **Formative assessment,** or assessment for learning is often defined as an ongoing process that must be conducted periodically to ensure learners are able to think critically and are ready to progress to mastery of more complex objectives.
Module TL01

Assessment is perhaps most critical at the point of advancement from the classroom to practice. A correct, evidence-based and defensible decision to allow the learner to cross the threshold from learner to health worker will ensure public access to a fully qualified workforce. Assessment of learning, often called **summative assessment**, is used to determine if the learner is ready to progress to the next level, or is competent to graduate.

**Measurement**

Measurement is a quantitative process used to provide a meaningful description of something of interest. Height and weight are common measurements applied by health workers. For example, a health worker may measure the height and weight of a patient as an important part of a client’s health assessment.

However, a measurement is only useful if it is both **reliable** and **valid**.

For a measurement to be **reliable**, one must repeatedly get the same results when measuring the same thing. Imagine the nurse weighing a client using a broken scale. The health worker could not trust these findings to make important care decisions because the measurement (weight) is unreliable.

A **valid** measurement is simply one that measures what it is intended to measure. The health worker who measured a client’s weight would find this measure valid for decisions related to diet or medication dose. The health worker would not use the measure of weight to determine whether the client had a fever because doing so would not be valid. Instead the health worker would use a thermometer to measure the client’s body temperature.

**Evaluation**

Measurement, while important has no meaning without interpretation by an appropriate subject matter expert. Imagine a health worker with the following height and weight measurements for a client:

- Weight = 55 kg
- Height = 160 cm

The expert health worker may be greatly concerned with these measures if the client was an adult male but consider them completely healthy if the client were an adult female. What if these measures were applied to an eight-year-old child? The health worker in this case is using these two measurements to make an **evaluation** as part of the health assessment process. The validity of this evaluation is based on his or her understanding of the context in which the measurements are taking place. In this case, understanding that generally a man weighs more than a woman and adults weigh more than children are essential factors affecting the context of the measurement.

These same principles of measurement and evaluation are essential to the assessment of learners. Every measurement selected must be supported by evidence of its validity. Measurement is either norm-referenced or criterion-referenced.

**Norm- versus Criterion-Referenced Assessment**

A norm reference measurement interprets measure by comparing it to others in a group. A facilitator who gives a class a classroom quiz and gives learners with the highest scores an A, middle scores a B and lowest scores an F grade is using **norm-referenced** measurement. If the facilitator instead set a pass score and allowed 100% of learners to either pass or fail the quiz, the facilitator would be using **criterion-referenced** measurement.

Norm-referenced measurement is very useful for learner selection. If an educator or trainer only has resources to devote to 50 learners, a norm-referenced test can be used to select those learners that are most likely to succeed and eliminate those that would most difficult to train.
Criterion-referenced measurement is preferable once learners have been selected. The goal of the educator and trainer is to ensure that all learners have mastered the competencies required for safe and effective delivery of services. In this context, consider the learners in a medical class. If all learners studied hard and the entire class mastered all course objectives, failing the poorest performing learners because they did worse than the highest performing learners would inappropriately deny society access to qualified physicians. On the other hand, if all learners failed to meet the course objectives, passing the highest performing learners would expose the public to less than competent physicians.

As faculty, your continued assessment, measurement, and evaluation of learner progress and mastery is critical to produce competent health workers. More information on the assessment of learning will be presented in the assessment and evaluation modules in this faculty development program.

**Effective Approaches to Teaching and Learning**

To some educational theorists, the process of teaching and learning (i.e., pedagogy) is a science that should be based on research and experimentation. To others, it is an art that involves a constant exchange between knowledge and action. Although some people may be natural facilitators, it is generally agreed that effective teaching is a learned rather than a natural ability possessed by some individuals. Regardless of whether teaching is viewed as science or art, learned or natural ability, several universal concepts and principles have emerged through educational research that can be observed and applied in your teaching.

Teaching can be defined as the conscious manipulation of the learners’ environment in a way that allows their activities to contribute to their development as people and health professionals. Learning can be defined as a change in behavior, perceptions, insights, attitudes, or any combination of these that can be repeated when the need is recognized.

Effective teaching considers which teaching methods and learning activities are most appropriate and result in the best learning outcomes. Jhpiego reviewed the literature (Bluestone et al. 2013) to identify, in the context of health professional continued professional development, which techniques, frequency, setting and media used to deliver instruction result in the best learning outcomes. While specific to post-basic, continued health professional education, some findings relevant for faculty are summarized below.

**Techniques**

Techniques are educational methods used to deliver instruction.

- The techniques most likely to change practice behaviors are interactive, promote mental processing, are directly linked to job performance, and maximize feedback.

- Interactive techniques (such as case studies, exercises, role-plays, and simulations) result in better learning outcomes than didactic techniques (passive instruction), such as reading or lectures.

- Blended learning combines various delivery approaches, typically mobile- or computer-based learning with live instruction and can be equally effective for knowledge outcomes as live instructor led training.

- Simulations are particularly useful for development of psychomotor and critical thinking skills, and there is strong evidence to support it. Emergency drills are particularly effective for assessing and strengthening emergency preparedness.

**Setting**

The setting is where learning occurs.

For skill acquisition, the workplace or a setting similar to the workplace is particularly important. It is easier to transfer skills when the learning occurs in an environment similar to the workplace (e.g., properly equipped skills lab).
Module TL01

Frequency
Repeated learning opportunities are preferable to one-time exposures.

Evidence indicates that shorter, repeated learning opportunities result in better knowledge and skill acquisition than one-time exposures. Providing opportunities to ‘space’ learning, with repeated practice sessions over time results in better learning outcomes.

Media
Media refers to the device or channel used to deliver instruction (live, computer, print media, etc.).

Studies have showed that eLearning, and blended learning, can result in similar or improved knowledge outcomes as live instruction. Interactive eLearning will result in better learning outcomes than passive eLearning. Media used to deliver instruction should be selected based on how efficiently and easily it can bring learning to the student, thereby reducing costs and increasing opportunities for practice.

In general, teaching and learning are more effective when:

- Facilitators use interactive techniques that help their learners develop critical thinking skills.
- Learners are ready and want to learn.
- Learners are aware of what they need to learn (i.e., there are clear learning objectives or expected outcomes).
- Learners actively participate in their learning.
- New knowledge, skills, and attitudes build on what learners already know or have experienced.
- New knowledge, skills, and attitudes are realistic, relevant, and can be put to immediate use.
- New knowledge, skills, and attitudes are demonstrated to learners, applied by learners, and integrated into the learners’ world.
- Numerous opportunities are given so that learners can practice both ideas and skills, and to receive feedback on their performance through self-, peer, or facilitator assessment.
- Feedback to learners on their performance is immediate, constructive, and nonjudgmental.
- Teaching is interesting, pleasant, and exciting.
- Teaching moves step-by-step from simple to complex and is organized, logical, and practical.
- The learning environment is realistic, relevant, and one of trust, mutual respect, relative calm, helpfulness, freedom of expression, and acceptance of different opinions and approaches.
- Facilitators give learners good reasons for learning, help them define what they need to learn, help them organize and make sense of what they should learn, ensure that learners participate and are involved, make the learning environment interesting and pleasant, give learners plenty of practice, and let them know how they are progressing.

Summary
In this module, we explored the process for developing learner knowledge, skills, and attitudes needed for competency; the critical role assessment plays in supporting competency development; effective approaches for teaching and learning, and strategies for using gender-sensitive approaches in teaching. In the next module, you will learn how to plan for teaching.
Module TL02: Planning for Teaching

Module Overview

Introduction

A professional health education program (e.g., midwifery, medical laboratory technician, medical, nursing, etc.) is based on a curriculum consistent with national and international standards. A curriculum is defined as all of the courses, clinical lab sessions and clinical practice experiences a student will complete during the program. Design of a program curriculum is the responsibility of the administration and management team (e.g., Deans, Program Chairs, senior members of the faculty, etc.).

Once the curriculum has been designed and approved, implementation of the courses, clinical labs and clinical practice experiences is the responsibility of the health professions educator. To be successful, the educator must be able to plan effectively.

As a health professions educator or teacher, you may be responsible for planning or adapting entire courses, or parts of courses. You may also develop and plan new courses. This takes thought, time, and careful preparation. Most courses have both theory and practice components that work together to develop students’ knowledge, skills, and attitudes. Courses usually begin in the classroom with theoretical background and the introduction, demonstration, and practice of related concepts and skills. They may continue in a simulated environment, such as a skills development lab, where students continue to develop knowledge, skills, and attitudes. Finally, courses may provide opportunities to practice key skills and demonstrate key attitudes in a supervised clinical setting.

Plan carefully for teaching by developing a course syllabus and a course schedule identifying each course session, or reviewing the course syllabus if you have a provided curriculum. You will also develop individual session plans. When developing, or adapting a course syllabus, you will develop objectives, select and create learning activities, plan for student assessment, select instructional content, including multi-media content, to support learning.

Module Objectives

By the end of the module, learners will be able to effectively plan for teaching.

To meet this objective you will:

- Develop a course syllabus
- Develop a course schedule
- Sequence content to facilitate learning
- Develop session plans

Developing a Course Syllabus

As a health professions educator or teacher, you are responsible for teaching courses. A course consists of a series of learning sessions on a particular topic (e.g., Anatomy and Physiology) within an academic program (e.g., Midwifery). Your plan is communicated to your students through your course syllabus and schedule. Some countries have a national curriculum for an academic program with a model syllabus provided for each course. As a teacher in the program, you may be involved in updating or recommending updates to the syllabi for the courses you teach.

Before we discuss the course syllabus we should look at how courses typically appear in a curriculum. Table 1 shows the first two semesters in a midwifery curriculum. Within each semester there are courses, labs and clinical practice sessions.
Table 1. Typical Courses in a Midwifery Curriculum

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Theory (h)</th>
<th>Lab</th>
<th>Practice</th>
<th>Courses</th>
<th>Credits</th>
<th>Theory (h)</th>
<th>Lab</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic English</td>
<td>2</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>PHC I</td>
<td>2</td>
<td>28</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Basic Math</td>
<td>2</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>Nutrition</td>
<td>2</td>
<td>28</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fundamentals of Midwifery I</td>
<td>3</td>
<td>42</td>
<td>126</td>
<td>0</td>
<td>Ethical &amp; Prof. Adjustment</td>
<td>2</td>
<td>28</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Anatomy &amp; Physiology I</td>
<td>3</td>
<td>42</td>
<td>42</td>
<td>0</td>
<td>Fundamentals of Midwifery II</td>
<td>4</td>
<td>56</td>
<td>0</td>
<td>168</td>
</tr>
<tr>
<td>Integrated Basic Science</td>
<td>3</td>
<td>42</td>
<td>0</td>
<td>0</td>
<td>Anatomy &amp; Physiology II</td>
<td>3</td>
<td>42</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>ICT</td>
<td>2</td>
<td>28</td>
<td>84</td>
<td>0</td>
<td>Midwifery I</td>
<td>4</td>
<td>56</td>
<td>0</td>
<td>168</td>
</tr>
<tr>
<td>Psych. &amp; Soc. (Psychosocial)</td>
<td>2</td>
<td>28</td>
<td>0</td>
<td>0</td>
<td>Pharmacology &amp; Drug Calculations</td>
<td>4</td>
<td>56</td>
<td>56</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>238</td>
<td>252</td>
<td>0</td>
<td>Total</td>
<td>21</td>
<td>294</td>
<td>98</td>
<td>336</td>
</tr>
</tbody>
</table>

Based on the information in Table 1, if you are teaching Fundamentals of Midwifery I, your students will spend 42 hours in the classroom and 126 hours in the clinical skills lab. The 42 hours in the classroom will be completed during a number of course sessions (e.g., 14 3-hour sessions). The time in the skills lab (126 hours) will also be completed during a number of sessions (e.g., 9 hours a week for 14 weeks). You are responsible for planning each of the course sessions and each of the skills lab sessions. The “plan” for how you will do this is communicated through your course syllabus and schedule. You will use lesson or session plans to plan how you will facilitate each class.

The Course Syllabus

A syllabus serves as the design document for a course, providing all the basic information about the course. Sample 1 is a course syllabus from a midwifery program. Sample 2 is a course syllabus from a medical laboratory technician program. Both of these have been modified to meet the needs of this module.

Primary Components of the Course Syllabus

A syllabus is given to students on the first day of the course and typically includes the following information (see Sample 1 and Sample 2):

- Title and course number
- Credit hours
- Duration
- Placement
- Course description
- Objectives
- Content
- Evaluation
- References
**Title and course number:** The title of the course and the course number will be established when the curriculum is developed and approved.

**Credit hours:** A credit hour is the unit for measuring educational credit. They are usually based on the number of classroom hours per week throughout a semester or term. A semester unit of credit is equal to a minimum of three hours of work per week for a semester. The number of credit hours for your course will be established when the curriculum is developed and approved.

**Duration:** This is the length of the course. The syllabus will indicate the number of classroom hours, hours in the clinical skills lab, and hours of supervised clinical practice (when applicable).

**Placement:** This information indicates the semester and year within the curriculum where your course is scheduled.

**Course Description:** The course description sets forth what the students can expect to learn during your course. The course description should clearly link to and support the core competencies for the academic program. Consider these points when you develop the course description:

- Be brief and to the point. A concise course description should require no more than a few well-written sentences.
- Use clear and active language.
- Describe, using action verbs, what students will know and be able to do as a result of attending the course. This general outcome or aim can be a combination of knowledge, skills, and attitudes.

**Objectives:** Learning or outcome objectives define in clear, measurable terms what the student will know and be able to after completing the course. These objectives will guide your course planning and preparation. Review any existing course and supporting objectives and revise them as needed. If they do not exist, write new ones. Writing course and supporting (or specific) objectives is covered in another module.

**Content:** The course content section of the syllabus typically consists of an outline of the primary topics and skills to be addressed during the classroom and clinical skills lab components of the course. This gives the teacher and students a clear picture of what the students will learn and be able to do by the end of the course. The information for the content outline is typically identified when the program curriculum is being developed. Therefore, this information should be available for inclusion in your syllabus.

**Evaluation:** How you will assess or evaluate your students will be based on the course description and objectives. Courses with a heavy emphasis on skills will have higher percentages assigned to skills or clinical. Courses that are mainly theoretical will may not have a skills or clinical weighting. Unless already provided, decide how to assess the knowledge, skills, and attitudes of those attending your course as well as how to evaluate the success of the course itself. Select the student assessment methods (e.g., written tests, oral examinations, skills assessment tests) after the objectives have been written. Clearly describe how students’ achievement will be assessed both in the classroom and in practical portions of the course. More information on student assessment is found in other modules.

In **Sample 1**, the grading criteria include:

- Quizzes 10%
- Assignments 10%
- Midterm Exam 15%
- Final Exam 20%
- Skills/clinical 40%
- Attendance 5%
This means, in order to pass the course, students must attend the course sessions, submit their homework, pass the quizzes, demonstrate skill competency in the skills lab, and pass the midterm and final examinations. The grading criteria let the students know at the beginning of the course exactly what they need to do to achieve a passing grade.

**References:** List references related to the course content. These may be references you used to develop course content. Students may be able to review these references during the course. References may include textbooks, documents, manuals, online resources, websites, etc.

**Clinical Practice Components**

In Table 1, you will note that some courses are taught in the classroom only (e.g., Nutrition). Other courses (e.g., Anatomy and Physiology) have hours in the classroom and in the skills lab. There are also courses (e.g., Fundamentals of Midwifery II) that have classroom hours and practice hours when students will be working with clients. When your course requires students to spend time in a skills lab or in clinical practice, then there should be related information in your course syllabus.

In the syllabus in Sample 1, the students will be scheduling time in the clinical skills lab. There is a section of the syllabus with information on the skill development part of the course. Below are brief descriptions of the information found in this part of the syllabus.

**Clinical Practice Description:** This is a brief description of where the students will be practicing specific skills.

**Objectives:** The clinical practice objectives define in clear, measurable terms what the student will be able to do as a result of practicing in the skills lab and working with clients. One objective (e.g., Provide for physical safety of patient) may include several skills. A student is expected to demonstrate that she or he is competent performing each skill.

**Clinical Placements:** When the course requires students to work with clients in a clinical setting, the syllabus should indicate where the student will be placed (e.g., labor and delivery, lab, general wards).

**Practical Skills:** List the observable skills (e.g., conduct a physical assessment, read and interpret lab results) the student is expected to master during the course. These are the same skills the students will learn in the skills lab and perform with clients.

**Other Components of the Course Syllabus**

A course syllabus may also include the following:

- Course schedule
- Course prerequisites
- Description of teaching methods
- Description of course materials
- Description of assignments
- Attendance criteria

**Course Schedule:** The course schedule is a session-by-session summary of learning activities and topics for the course. In the course schedule, you may indicate when the course begins and when it ends. You may indicate where the course or lab sessions will be held as well as dates, times and assignments. Developing a course schedule is described later in this module.

**Course Prerequisites:** Identify and list any courses or related experiences that students must complete before enrolling in this course.
Teaching Methods: Describe the teaching methods (e.g., interactive presentations, guest speakers, case studies, role plays) you plan to use so that the students know what to expect. Selecting teaching methods that will meet the desired objectives is discussed in another module.

Resources: Include a description of the instructional content, or learning resources, used in the course. These may include textbooks, packets of information (e.g., articles, handouts, self-learning packets), clinical logbooks, exercise books, assignments, library materials, computer software, and handbooks. It is also important to indicate where students can obtain the materials, such as from a bookstore, library, or teacher. How to select learning resources is discussed in another module.

Course Assignments: Students are very interested in the assignments they are required to complete and submit during the course (e.g., project reports, skills practice sessions with other students, homework). It is important to clearly outline the major course assignments in the course syllabus or schedule and discuss them on the first day of the course. You may decide to include the list of assignments in the course schedule or with the assessment methods.

Attendance: The inclusion of a statement of attendance is optional. An attendance statement describes requirements for attendance and participation and the implications of missing classroom and clinical sessions. Some teaching institutions do not make a statement concerning attendance, while others make it a routine part of the student assessment criteria.

Developing a Course Schedule

A course schedule (see Sample 3 and Sample 4) shows what happens during each week of a course. While you may be given a syllabus for your course, it is likely that you will need to develop or revise a course schedule to indicate specific dates and assignments. Here are brief descriptions of the information typically found in the schedule for a health professions course:

Session Date and Topics: List each of the course sessions indicating the date and the topics to be covered during classroom sessions.

Pre-Session Assignments: Indicate any reading or other assignments that students are to complete before the attending each session.

Homework Assignments: Indicate any homework assignments that are to be completed. Also, indicate when these assignments are to be submitted. In Sample 3 and Sample 4, the teacher has developed a series of exercise sheets that outline specific assignments to be completed.

Clinical Skills Assignments: Indicate the number of hours the student is to schedule in the skills lab each week. If appropriate, list the specific skills to be worked on each week. These are usually listed in the course syllabus. These assignments could also be for clinical practical experiences with clients.

Sequencing Instructional Content

To prepare a schedule, you will need to sequence or order your content. In some cases, you will follow the sequence of the learning objectives as they are presented in your course syllabus. There are several ways you can sequence the learning objectives (and therefore the instructional content) in your course.

• Simple to Complex: Learning objectives may be sequenced in terms of increasing complexity. Most textbooks are written from simple to complex.

• Job Performance Order: The learning objectives are in the order that knowledge, skills, and attitudes are applied on the job.

• Critical Sequence: Learning objectives are sequenced in terms of their relative importance.

• Mastery Sequence: Mastery of one learning objective is required before another.
Once you finalize the sequence of your learning objectives (and therefore the instructional content), you may want to list the learning objectives in your course syllabus in the same sequence.

**Developing Session Plans**

A course is divided into a series of sessions. Each session will focus on specific content outlined in the course syllabus. Assume you are teaching a three-hour session. What will you do for three hours?

A session plan is an organized description of the activities and resources you will use to guide your students toward the course objectives. There are many different formats you can use to develop session plans. **Sample 5** is a session plan for a midwifery course. **Sample 6** is a session plan for a laboratory math course.

The session plan usually includes the following information:

- **Date:** The date the session will be conducted (listed in the course schedule).
- **Venue:** Where the students will meet for the course session, whether classroom, simulation center, or practice site.
- **Session Number:** The number of the session according to the course schedule.
- **Duration:** The time allotted for the session.
- **Topic:** The topic(s) to be covered during the session. These are based on the content outlined in the course syllabus.
- **Session Objectives:** Written based on the topic(s) to be covered during the session.
- **Methods and Activities:**
  - **Intro/Activity:** Describe how you will introduce the session. This typically includes the session objective(s). Your introduction may also include an activity to capture the interest of your students.
  - **Content:** The content is outlined in the course syllabus. In your session plan, you will outline the teaching methods and activities you will use to teach the content.
  - **Practice Activity:** It is important to include practice activities during each session that engage your students and increase learning. These could be small-group or individual activities including case studies, role plays, problem-solving exercises, etc.
  - **Summary:** Describe how you will summarize the session. Ask for questions. Ask questions. Highlight key points. During the summary, you can also remind the students about reading and homework assignments as well as scheduling time in the clinical skills lab.
  - **Self-Review/Evaluation:** Use this section of the session plan to make notes of what worked and what you would like to change the next time you conduct this session.

When preparing your session plan, consider Gagne’s Nine Events of Instruction * which describes a recommended way to organize instruction. Consider that good instruction usually includes the following:

- An introduction that links to previous content or prior experience and gain’s attention is included;
- Goals that are clearly stated;
- Information that is presented clearly—didactic (e.g., lecture or reading) or passive techniques should be used infrequently;

• Performance practice and provide learning activities that are based on information, at minimum, via multiple-choice questions or other exercises, that allow learners to apply knowledge;

• The primary use of interactive learning techniques—whether case study, game, exercise, simulation, or practice and feedback;

• Opportunities to give feedback (peer-to-peer, or instructor-led);

• Clinical simulations, practice, and feedback or case studies that are used for communication, psychomotor, or critical thinking skills development;

• When appropriate, multi-media (video, animations) that is used to demonstrate communication and psychomotor skills or to demonstrate how to read lab samples; and

• Summary highlights, key points, and links to future content.

For more information, visit

**Summary**

Planning is essential if your students are to develop specific knowledge, skills, and attitudes. In this module, we explored how to develop or adapt a course syllabus and course schedule. Once you have developed a course syllabus and schedule, you will then develop session plans outlining what you and the students will do during each course session. The following templates are provided as part of this module to help plan your course.

• Sample 7. Syllabus template

• Sample 8. Course schedule template when there is a clinical component

• Sample 9. Course schedule template when there is not a clinical component

• Sample 10. Session plan template
Planning for Teaching Checklist

This checklist contains the primary steps you will follow to plan for teaching. Check each item as you complete it.

<table>
<thead>
<tr>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Syllabus</strong></td>
<td></td>
</tr>
<tr>
<td>There is a syllabus for my course.</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes the course title and course number.</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes the credit hours.</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes the duration of the course.</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes the placement of the course within the program curriculum.</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes the course description.</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes the course objectives.</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes skill development information including:</td>
<td></td>
</tr>
<tr>
<td>• Clinical practice description</td>
<td></td>
</tr>
<tr>
<td>• Clinical practice objectives</td>
<td></td>
</tr>
<tr>
<td>• Clinical placements</td>
<td></td>
</tr>
<tr>
<td>• Practical skills</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes a description or outline of the course content.</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes a description of how students will be evaluated (course grading criteria).</td>
<td></td>
</tr>
<tr>
<td>The syllabus includes course related references.</td>
<td></td>
</tr>
<tr>
<td><strong>Course Schedule</strong></td>
<td></td>
</tr>
<tr>
<td>There is a schedule for my course.</td>
<td></td>
</tr>
<tr>
<td>The schedule shows the dates for all course sessions.</td>
<td></td>
</tr>
<tr>
<td>The course schedule shows any pre-session requirements.</td>
<td></td>
</tr>
<tr>
<td>The course schedule shows all homework assignments.</td>
<td></td>
</tr>
<tr>
<td>The course schedule shows all clinical skills assignments.</td>
<td></td>
</tr>
<tr>
<td><strong>Session Plans</strong></td>
<td></td>
</tr>
<tr>
<td>There is a session plan for each course session.</td>
<td></td>
</tr>
<tr>
<td>The plan indicates the length of the session.</td>
<td></td>
</tr>
<tr>
<td>The plan includes the topic(s) to be covered during a session.</td>
<td></td>
</tr>
<tr>
<td>The plan includes the session objectives</td>
<td></td>
</tr>
<tr>
<td>The plan includes methods and activities including:</td>
<td></td>
</tr>
<tr>
<td>• Introduction and activity</td>
<td></td>
</tr>
<tr>
<td>• Content</td>
<td></td>
</tr>
<tr>
<td>• Practice activity or activities</td>
<td></td>
</tr>
<tr>
<td>• Summary.</td>
<td></td>
</tr>
<tr>
<td>The plan includes a section for self-review and evaluation to document changes for this session in the future.</td>
<td></td>
</tr>
</tbody>
</table>
Module TL03: Developing Objectives for Learning

Module Overview

Introduction
In a previous module, we looked at how to develop a course syllabus. Learning objectives are an important part of the course syllabus. What is a learning objective?

A learning objective is a clear, measurable description of what the student will know and be able to do because of a learning experience (e.g., course, presentation, demonstration, skill practice session, practical experience in a clinical setting, etc.).

There are several reasons why we develop learning objectives:

- Describe what your learners will know and be able to do
- Determine learning activities
- Determine assessment methods
- Identify learning content
- Help identify ‘need-to-know’ and remove ‘nice-to-know’ content
- Help organize your course

Sometimes you will be provided learning objectives in a course syllabus. As a health professions educator or teacher, you will often need to develop your own learning objectives.

Module Objective
By the end of the module, learners will be able to develop objectives for learning.

- To meet this objective, you will:
  - Identify the components of a well written learning objective
  - Identify common challenges in writing clear learning objectives
  - Use objectives to plan your instruction

Parts of a Learning Objective
There are several different formats you can use to write learning objectives. The format you will learn in this module is very detailed and useful for planning teaching. You may present the objectives in a simpler way for your learners, but thinking through the behavior desired, conditions under which the behavior is performed, and criteria for success will help you identify relevant and meaningful learning activities.

Before writing a learning objective it is important to understand the parts of an objective. Here is an example of a well written learning objective for a nursing or midwifery program:
Note that “criteria” is the plural form of “criterion.” It is used when referring to more than one criterion (i.e., meaning students are being assessed several different ways). Criterion is singular and is used to refer to a single standard of student performance. We use “criteria” as most learning objectives have more than one criterion for student performance.

Now look at the objective again, but in the three parts:

- **Behavior**: In this objective the student is being asked to make the bed. If this was the complete objective the student would be asking questions such as what type of bed, how is the bed made, etc. These questions are answered in the other parts of the objective.

- **Conditions**: The conditions part of the objective tell us that the student will be given an unoccupied open hospital bed. The student now feels more comfortable about what is expected. However, the student still does not know how well to make the bed.

- **Criteria**: According to the objective, the student must make the bed according to the steps in the performance checklist. The student now needs a copy of the checklist and will want to observe a demonstration of the correct way to make the bed. With some practice the student will be able to correctly make the bed.

Can you identify the three parts in this objective for a medical laboratory technician program?

**Given five laboratory reagents, check for visual deterioration and expiry dates to correctly determine if each reagent can be used. The student will also correctly answer 85% of the multiple-choice questions on a knowledge assessment.**

- **Behavior**: In this learning objective the student is being asked to check a reagent and determine if it can or cannot be used.

- **Conditions**: The student will be given five laboratory reagents. Presumably some are useable and others are not.

- **Criteria**: The student must check for visual deterioration and expiry dates. The student must also correctly answer at least 85% of the questions on a knowledge assessment.

Both sample objectives have a hands-on skill component. Below is one more example. In this one, the objective is strictly based on knowledge.

**Given a calculator and 20 problems involving the addition, subtraction, multiplication and division of decimals, the student will solve at least 85% of the problems correctly to two decimal places.**

- **Behavior** – In this learning objective the student is being asked to solve problems involving decimals.

- **Conditions** – The student will be given a calculator and 20 problems involving the addition, subtraction, multiplication and division of decimals.
• **Criteria** – The student must correctly solve at least 85% of the problems to two decimal places.

Often objectives are written more simply for the learners and may only include the desired behavior, but when planning instruction here is why we include these three parts (behavior, conditions and criteria) in the objectives:

• This three-part objective format forces course designers and teachers to think critically about what students are to do and how they are to be assessed.

• This format specifies the “given” or the context of the desired performance.

• Writing objectives in this format helps determine learning activities and assessment methods during the design phase.

• Using this format ensures a focus on performance or desired behaviors

**The “Behavior” Part of the Objective**

You will note in the two samples that the behavior part of the objective begins with an “action” verb (e.g., make, check, and solve). **Table 1** presents several action verbs you can use to write learning objectives.

<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>

There are some verbs you should avoid using because they are difficult to measure. A few of these include:

• Understand

• Know

• Believe

• Study

• Be aware

• Learn

• Appreciate

How do you measure if a student “understands” a specific concept? You should write objectives with measurable verbs such as identify, state, list, select, etc.

**The “Conditions” Part of the Objective**

In the three samples the conditions part of the objective started with “Given.” Here are other condition statements you can use when developing your learning objectives:

• With a client

• In a simulation

• Presented with a case scenario

• During a community meeting
Module TL03

- Using an anatomic model
- In a role play

**The “Criteria” Part of the Objective**

The criteria part of the objective is a statement that tells the student what degree of accuracy or quality they must achieve in order to demonstrate an acceptable level of performance. This is the measurable part of the objective and tells the student “how well” they must do to demonstrate achievement of the objective. Examples of standards of performance include:

- Within 5 minutes
- According to the performance checklist
- 85% or better
- In compliance with manufacturer standards
- By completing all steps in the checklist with a rating of 4 or 5 for each step
- By matching 100% with the interpretation of a subject matter expert

**Developing Clear Learning Objectives**

Now that you are aware of the three parts of a learning objective, it is time to see if you can determine when an objective is clear or not. It can be challenging writing clear objectives. Comparing examples of clear and poorly written objectives will help you write them better.

Here is an example of a poorly written objective:

**Take height and weight of a client.**

Compare the previous objective to the one below. Which one will be more helpful to the teacher and students?

***In a simulation with another student, record the client’s height and weight on a chart to within +/- 3% of the correct values.***

Here is another example of a poorly written objective:

**Put on gloves.**

Compare the previous objective to the one below.

***Given a pair of sterile gloves, the student will demonstrate how to put on sterile gloves correctly following each of the steps in the performance checklist.***

Here is another example of a poorly written objective:

**Talk with clients.**

Compare the previous objective to the one below.

***During a role play that simulates interaction with a client, demonstrate the ability to effectively communicate with the client in a caring and compassionate manner according to the communications tip sheet.***
The previous objective is now being written to show what the student must do in a setting with actual clients.

In a setting with a client, demonstrate the ability to effectively communicate with the client in a caring and compassionate manner according to the communications tip sheet.

Here is our final example of a poorly written objective:

Read lab results

Compare the previous objective to the one below.

Given a set of lab results for a client, read and interpret the results to match 100% with the interpretations of a subject matter expert.

Use Objectives to Plan Your Instruction

Objectives help you select relevant and purposeful learning activities. Learning activities are the activities you provide for learners that will best help them develop the desired behaviors. Learning activities should ‘mirror’ the desired behavior very closely, more information on selecting and developing learning activities will be covered in other modules.

Objectives also help you select learning assessment methods that best assess if the desired behavior has been performed. Common assessment methods include knowledge assessments (i.e., tests) and skill assessments based on performance checklists. More information on selecting and developing assessment methods will be covered in other modules.

Table 2 shows several learning objectives. For each objective, you will see recommended learning activities and assessment methods.

Table 2. Linking Objectives to Instructional Planning

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>Possible Learning Activities</th>
<th>Possible Assessment Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Given five laboratory reagents, check for visual deterioration and expiry dates to correctly determine if each reagent can be used. The student will also correctly answer 85% of the multiple-choice questions on a knowledge assessment.</td>
<td>Interactive presentation focusing on checking laboratory reagents. Demonstration of how to check for visual deterioration and expiry dates. Students work in pairs to check various reagents.</td>
<td>Knowledge assessment based on presentation content. Use multiple-choice items. Teacher to provide each student with 5 reagents and students are to correctly check each reagent.</td>
</tr>
<tr>
<td>Given a pair of sterile gloves, the student will demonstrate how to put on sterile gloves correctly following each of the steps in the performance checklist.</td>
<td>Review the steps to glove in the performance checklist. Teacher to demonstrate how to glove. Students to practice gloving in pairs with one student using the checklist to provide feedback to the other student.</td>
<td>Student to demonstrate how to put on sterile gloves as teacher observes using the checklist.</td>
</tr>
</tbody>
</table>

As you review the information in Table 2, it should be clear that having well written objectives will be very helpful when selecting learning activities and assessment methods.
Module TL03

**Summary**

In this module, we learned how to develop learning objectives useful for planning your teaching. Objectives provide direction for the teacher and help in the selection of learning activities and assessment methods. Objectives also let the student know what they will learn and how they will be assessed. We also learned that a well written learning objective will have three parts:

1. **Behavior:** describes what the student will know and be able to do or accomplish.
2. **Conditions:** describes what the student is given to perform
3. **Criteria:** describes how well the student must perform

In the next module, we will learn how to select learning activities.
## Developing Objectives for Learning Checklist

This checklist contains the primary steps you will follow to plan for teaching. Check each item as you complete it.

<table>
<thead>
<tr>
<th></th>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Each objective includes a well-written conditions statement.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Each objective includes a well-written behavior statement.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Each objective includes a well-written criteria statement.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knowledge action verbs in the learning objectives are measurable.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skill action verbs in the learning objectives are measurable.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attitude action verbs in the learning objectives are measurable.</td>
<td></td>
</tr>
</tbody>
</table>
Module TL04: Selecting Learning Activities

Module Overview

Introduction
Learning is the acquisition of knowledge or skills through study, experience, or being taught. A learner enrolls in a professional health education program (e.g., midwifery, medical laboratory technician, medical, nursing, etc.) to master the competencies needed to enter their chosen profession.

From the perspective of the learner, a course within their program is a series of learning activities. The learner participates in course presentations, completes homework exercises, reacts to case studies, completes games, participates in role plays, observes skill demonstrations, practices skills, completes clinical simulations, etc.

From the perspective of the educator, teaching a course requires that they select and use a variety of teaching methods. As you will learn in this module, the teaching methods are essentially the same as the learning activities. We provide additional detail on two methods that you may not have used often but have been shown to be effective, educational games and clinical simulations.

Objective
After completing this module, you will be able to select relevant and meaningful learning activities.

Supporting Objectives
To meet this objective, you will:

- Identify common learning activities
- Select relevant and purposeful learning activities
- Describe how to use educational games
- Describe when to use simulations

Identify Common Learning Activities
The health professions educator or facilitator should use a learner-centered approach to teaching. The learner-centered approach to teaching stresses the use of a variety of different learning activities to facilitate learner learning. This is sometimes referred to as “Guide by the side, not sage on the stage.”

While the focus is on learner learning, teaching and learning is a shared responsibility between learners and their facilitators. Learning activities must be:

- Relevant—learning relates directly to the objectives.
- Purposeful—learning involves mental processing (i.e., engaging the learner and encouraging them to think) and practice with feedback.

Facilitators need a variety of teaching methods and learning activities to promote learner learning and develop understanding. Facilitators also require a variety of learning activities to actively engage learners. The focus of learning objectives helps facilitators select the most appropriate learning activities.
The most common learning activities used in professional health education programs are presented in Table 1. For each learning activity (or teaching method) there is also a brief description. Additional information about some of these learning activities will be covered in this and other modules in this program.

Table 1. Common Learning Activities*

<table>
<thead>
<tr>
<th>Learning Activity</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audience response systems</td>
<td>Audience response systems address knowledge objectives. Used in combination with live presentations or discussion groups, these are computerized feedback tools that allow the instructor or facilitator to pose a question to a large group and receive immediate feedback from each learner. That data is collated and presented on a screen. The facilitator may choose to alter content based on audience responses. Often used in a “flipped classroom” approach, free internet tools such as Poll Everywhere and games such as Kahoot! make implementing an audience response system learning activity easy.</td>
</tr>
<tr>
<td>Case Study</td>
<td>Case studies address higher order knowledge and skill objectives. In case-based learning, clinical material is presented and followed by questions that are usually determined by the facilitator. Learners are required to consider the case and clinical material to problem-solve. Facilitators can provide feedback throughout to reinforce the correct and desired behaviors.</td>
</tr>
<tr>
<td>Coaching</td>
<td>Coaching is an approach in which a facilitator explains procedures or routines; demonstrates tasks, modeling the exact performance of the skill or activity; and provides ongoing feedback to a learner regarding performance. The facilitator should observe and interact with his or her learner to monitor progress and overcome problems. Additional information will be provided in another module.</td>
</tr>
<tr>
<td>Demonstration</td>
<td>Demonstration addresses skill and/or knowledge (knows how) objectives; can be presented live, with video, or audio. Facilitators determine the amount and pace of demonstrated content. Additional information will be provided in another module.</td>
</tr>
<tr>
<td>Discussion</td>
<td>Discussion is the interactive process of sharing information and experiences related to achieving a learning objective. Additional information will be provided in another module.</td>
</tr>
<tr>
<td>Game</td>
<td>An educational game is “an instructional method requiring the learner to participate in a competitive activity with preset rules.” The purpose of the game must relate to the learning objectives.</td>
</tr>
<tr>
<td>Guest Speaker</td>
<td>Guest speakers are experts in the field who give presentations related to the learning objectives. Facilitators should encourage guest speakers to avoid lecturing.</td>
</tr>
<tr>
<td>Clinical Practice or Practicums</td>
<td>Clinical practice or practicums address skill, knowledge, and attitudinal objectives. Generally, they refer to a preceptorship or observership with an expert, as in attending a specialty clinic, laboratory, or operating room.</td>
</tr>
<tr>
<td>Illustrated Lecture (or Interactive Presentation)</td>
<td>During illustrated lectures, Facilitators verbally present content using a variety of questions, interactions, audiovisuals, and instructional materials. These should be no more than 20 minutes long whenever possible.</td>
</tr>
<tr>
<td>Individual Tutorial</td>
<td>An individual tutorial is a study of information by one learner under the instruction of a facilitator or tutor. These typically supplement other learning methods.</td>
</tr>
<tr>
<td>Individualized Learning</td>
<td>Individualized learning is a process in which learning objectives are reached by learners working at their own pace through individual learning packages. This is also known as self-study.</td>
</tr>
<tr>
<td>Panel Discussion</td>
<td>Related to learning objectives, a panel discussion is a presentation given by a group of individuals or experts.</td>
</tr>
<tr>
<td>Problem-based learning or team-based learning</td>
<td>Problem-based learning addresses higher order knowledge objectives, metacognition, and some skill (group work) objectives. A clinical scenario is presented to a team, who identify the learning objectives, assign information-seeking tasks, and return to share information and answer questions about the case. Can be facilitated or non-facilitated.</td>
</tr>
</tbody>
</table>
Learning Activity | Definition
--- | ---
Role Play | Role play addresses skill, knowledge, and affective objectives. Learners assume role of patients and/or clinicians while practicing focused encounters regarding training problems, usually when standardized patients are unavailable. Encounters may be recorded and reviewed or followed with a group discussion.

Simulation | Simulations are used to address knowledge and skill objectives. Otherwise known as clinical simulations, these are activities that replicate clinical practice or a clinical event using scenarios, standardized patients, role playing, and/or skills stations. These help learners practice psychomotor and/or critical thinking or decision-making skills. Technology can be used for simulation training of procedures, such as endoscopy virtual reality trainers or anesthesia simulators. Simulation also includes models or modeling, such as in joint injection and suture. This learning activity requires the physical participation of learners, and facilitators can use multiple learners in some scenarios.

Caution! One of the most common teaching methods used in professional health education programs is the combination of traditional lecture and assigned readings. The lecture is often a one-way communication process with little or no interaction with the learner, and evidence shows didactic techniques that only “push” information typically result in no-to-low learning outcomes. It is recommended that facilitators do NOT use the lecture approach. As shown in Table 1, there are many other learning activities the facilitator can use that are more interactive and can help learners’ process information.

Selecting Learning Activities

During a health professions education course, you will be responsible for ensuring that learners acquire specific knowledge and develop specific skills and attitudes. These include:

- **Knowledge**: Facilitators must help learners learn the essential information related to the course objectives. This learning may occur in the classroom or outside of the classroom through self-study.

- **Hands-on or psychomotor Skills**: Facilitators must help learners develop the skills related to the course objectives. These skills are initially developed during demonstrations and guided practice in a simulated setting and then (when applicable) in a setting with clients.

- **Communication Skills**: To be successful, learners must develop effective communication skills. These skills may be applied when communicating with clients, colleagues, supervisors, etc. These communication skills often support the development of appropriate attitudes for working in the health professions.

- **Clinical Decision-Making or Critical-Thinking Skills**: Clinical decision-making is a process during which data are gathered, interpreted, and evaluated to select an evidence-based choice of action. Critical thinking is defined as a thinking process applied by an individual in the context of achieving success. Development of these skills is essential for the learner in a health professions education program.

- **Attitudes and Behaviors**: An attitude is a way of thinking or feeling about something. Our attitudes are communicated by our behaviors, and the way we talk and through our body language. The best approach for improving a learner’s attitude in a specific area (e.g., client relations) is to model the desired attitudes and then allow the learner to participate in role plays and discussions designed to develop positive attitudes. In some educational circles, the focus is more on developing desired behaviors than trying to change attitudes, as behaviors are more objectively measurable. Behavior modelling is an important strategy to influence learners’ behaviors.

Table 2 presents suggested learning activities for ensuring that learners acquire specific knowledge and develop specific skills and attitudes.
Table 2. Types of Knowledge and Skills and Their Suggested Learning Activities

<table>
<thead>
<tr>
<th>Type of Knowledge or Skill</th>
<th>Learning Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Games, quizzes, research assignments, illustrated and interactive presentations, and readings</td>
</tr>
<tr>
<td>Hands-on Skills (Motor Skills)</td>
<td>Demonstration, practice (with coaching), and feedback (repetition)</td>
</tr>
<tr>
<td>Communication skills</td>
<td>Demonstration, guided practice and feedback (including role plays), and video; feedback and behavior modeling are essential to building strong communication skills</td>
</tr>
<tr>
<td>Clinical Decision-Making or Strategic-Thinking Skills</td>
<td>Case studies; clinical simulations; examples from clinical experience that provide rationale for decisions; and record, review, and discussion for work involving clients</td>
</tr>
<tr>
<td>Attitudes and Behaviors</td>
<td>Behavior-modeling; study of professional ethics; demonstration both of desired and non-desired behaviors (model should be admired or respected by learners); self-reflection/journaling; and role plays</td>
</tr>
</tbody>
</table>

When selecting activities, make sure they are consistent with the learning objective and how you will assess that objective. Table 3 shows two learning objectives and the possible learning activities or teaching methods you could use to help the learners achieve the objectives.

Table 3. Linking Objectives to Instructional Planning

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>Possible Learning Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Given five laboratory reagents, check for visual deterioration and expiry dates to correctly determine if each reagent can be used. The learner will also correctly answer 85% of the multiple-choice questions on a knowledge assessment.</td>
<td>Interactive presentation focusing on checking laboratory reagents. Demonstration of how to check for visual deterioration and expiry dates. Learners working in pairs to check various reagents.</td>
</tr>
<tr>
<td>Given a pair of sterile gloves, the learner will demonstrate how to put on sterile gloves correctly following each of the steps in the performance checklist.</td>
<td>Review the steps to glove in the performance checklist. Facilitator to demonstrate how to glove. Learners to practice gloving in pairs with one learner using the checklist to provide feedback to the other learner.</td>
</tr>
</tbody>
</table>

One of the questions often asked by health professions facilitators concerns how much practice to include for the development of specific knowledge and skills. It is important to answer this question when selecting learning activities so that you select the appropriate activities and allow sufficient time in the course schedule for practice. Practice may occur in the classroom, outside the classroom through self-study and homework, in a skills lab, in a clinical setting, or on the job.

Several factors to consider when deciding how much practice are listed below.

- Consequences of error—the greater the consequences the more practice time required.
- Complexity of task—more complex tasks or skills may require more practice.
- Spaced practice is a sequence of short practice periods over an allotted extent of time. It is more effective than one-time practice sessions, resulting in better retention. A “low dose, high frequency” approach is recommended.
- Acceptability of job aids—some tasks or skills can be more easily practiced using job aids (e.g., simulations, anatomic models, checklists).
Whenever learners are practicing, the facilitator is usually available to observe, coach, and provide feedback. Consider the advice below when providing feedback to your learners.

- Provide clear, constructive information about what the learner is doing well and offer suggestions for how performance can be improved.
- Correct a behavior; do not attack the learner.
- Whenever possible, allow the learner to try again as you observe and provide feedback.
- When providing feedback, be sure to initially ask the learner what they did well and what they would do differently next time. Then offer positive feedback as well as suggestions for improvement. This can be done individually or in front of other learners. The advantage of other learners hearing your feedback is that they learn how to perform a skill correctly. However, be sure to keep the focus positive and never embarrass the learner.

**Common Learning Activities**

**Case Study**

The focus of a case study is a situation. The situation may be related to the diagnosis or treatment of patients, interpersonal skills, or any of a wide range of managerial or organizational problems. Learners may be asked to:

- Define the problem in the case study and developing suggestions for solutions,
- Respond to a clinical situation by suggesting appropriate interventions and discussing them,
- Evaluate clinical decisions and the process used to make the decision in the case study,
- Identify the possible impact of choices or decisions made in the case study,
- Analyze the causes of a problem, and/or
- Identify attitudes that may influence the healthcare providers’ behaviors described in the case study.

**Role Play**

Role plays give learners opportunities to receive feedback on their performance in a safe setting; this feedback provides insight into their own behavior and helps them to understand how others view them. When selecting a role play, decide what learners should learn from the role play (the objectives).

**Interactive Presentation**

Evidence tells us that didactic instruction (such as reading or lecturing to learners) without learners interacting meaningfully with content results in no-to-low learning outcomes. While you may use interactive presentations in your classroom via PowerPoint, you want to be aware of the limits of lecture for learning. PowerPoint is a software package most often used to create electronic presentations consisting of a series of separate slides. When correctly designed, and used, PowerPoint can help you deliver extremely informative and engaging presentations. However, if poorly developed and used, PowerPoint can be ineffective.

**Advantages**

- Developing a PowerPoint presentation is fairly easy. With a little practice, you will be developing excellent PowerPoint presentations.
- Most slides consist of images or series of bullet points. This forces the facilitator to summarize complicated content into clear and approachable pieces of information. Remember that PowerPoint is not designed to present paragraphs of text.
- Learners can clearly see content projected on a screen.
Limitations

- “Death by PowerPoint” is a phrase uttered by learners whose facilitators stand in the front of the room, back to the learners, and read the slides. They have so many slides that there is little or no time to interact with and engage their learners.

- In some cases, facilitators simplify a concept too much in order to get the content on slides. Often a handout, video, or demonstration would be a better choice.

- To use PowerPoint, you need a computer, projector and a screen. If these are difficult to locate or not available, then you clearly will not be able to use PowerPoint.

Educational Games

Educational games and exercises are a great way to check learners’ understanding of key points, generate discussion, and foster changes in attitude—energizing the group at the same time. Unlike warm-ups and ice-breakers, whose sole purpose is to energize and foster cohesion in the group, this type of activity should be directly tied to course objectives and may add excitement through an element of playfulness or competition.

Games or exercises can be developed for large groups, small groups, or even individuals working on their own. There are many educational games relevant for health workers available on the Google Play store. Examples of games or exercises that may be readily adapted to specific learning objectives include:

- Mobile game applications
- Gamification software
- Races and other competitions
- Debates
- Word puzzles
- Matching games
- Simulation or role play-related games
- Board games

In addition to using basic facilitation skills and adhering to the basic facilitation process, here are some tips that are especially relevant to educational games or exercises. Before the educational game or exercise (as part of your introduction):

- Make sure “ground rules” or expectations, instructions, and the point of the activity (i.e., that it is not all about having fun) are perfectly clear.

- Announce the availability of small prizes (e.g., candy, colored pens), if available and appropriate, for “winners or the winning team” to add to the fun and encourage full participation.

During the educational game or exercise (as part of conducting), try not to intervene while the game or exercise is under way, except to help the activity stay on track and to handle unexpected situations that might arise (e.g., confusion, arguments).

Following the game or exercise, the facilitator should facilitate a discussion focusing on what the learners learned.

Note: There are hundreds of educational games and exercises available online. Be sure that any games or exercises selected for use in your course are appropriate and relate to the learning objectives.
Clinical Simulations

A clinical simulation presents the learner with a carefully planned, simulated patient management situation. Clinical simulations are an excellent method for developing clinical decision-making skills and can take a variety of forms. During the simulation, learners interact with persons and things in the environment, apply previously/newly acquired knowledge and skills in responding to a problem, and then receive feedback about those responses without having to be concerned about real-life consequences. Additional information on facilitating clinical simulations in a later module.

Clinical simulations are often conducted with a small group of learners—one learner may be the primary responder while other learners provide feedback, or all learners in the group may be involved in the exercise.

There are several different types of clinical simulations, and it is important to consider what type best fits the objectives of what you want to teach:

- **Live simulated-patient scenarios** involve the use of persons trained to act the role of the patient. They are given a very specific script to follow while interacting with the learner. The interaction may be recorded using video or observed so that feedback can be provided to the learner.

- **Mediated simulations** use audio or visual media to present the problem, represent an interpersonal situation, or help in the analysis of a problem or situation. For example, a video of people interacting may be shown, or audio of heart sounds may be played, to provide information for the learner to use in the simulation.

- **Simulations using anatomic models** (physical simulators) that closely resemble the human body (or parts of it) are often used for developing psychomotor skills. A physical simulator may be used along with a role play in a clinical simulation that requires learners also to demonstrate technical skills.

Summary

In a professional health education program, learners learn the knowledge, skills, and attitudes to enter their chosen profession. From the perspective of the learner, a course within their program is a series of learning activities. The facilitator will select appropriate learning activities (or teaching methods) to help ensure that learners are able to achieve the learning objectives. In this module, we learned that there are several potential learning activities that you can select for use in your course. You should select activities that most closely mirror or reflect the desired performance in each of your learning objectives.
## Module TL05: Developing Learning Activities

### Developing Learning Activities Checklist

This checklist contains the primary steps you will follow to develop learning activities. Check each item as completed.

<table>
<thead>
<tr>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Complete an Instructional Planning Worksheet</strong></td>
<td></td>
</tr>
<tr>
<td>Learning objectives written to include behavior, conditions and criteria.</td>
<td></td>
</tr>
<tr>
<td>Variety of learning activities selected to help ensure learners are able to achieve the learning objectives.</td>
<td></td>
</tr>
<tr>
<td>Learning activities “mirror” desired behavior and are relevant and purposeful.</td>
<td></td>
</tr>
<tr>
<td><strong>Develop a Case Study</strong></td>
<td></td>
</tr>
<tr>
<td>Identify the topic, issue, or problem on which the learners will focus.</td>
<td></td>
</tr>
<tr>
<td>Ensure that the case study presents a real situation.</td>
<td></td>
</tr>
<tr>
<td>Determine whether the case study will be completed by individuals or in small groups.</td>
<td></td>
</tr>
<tr>
<td>Provide the learners with reaction activities that will guide them in completing the case study.</td>
<td></td>
</tr>
<tr>
<td>Decide whether learners will report the results of their work on the case study in writing or orally to the entire group.</td>
<td></td>
</tr>
<tr>
<td>Ensure that the final case study includes:</td>
<td></td>
</tr>
<tr>
<td>• Directions</td>
<td></td>
</tr>
<tr>
<td>• The case, situation or problem</td>
<td></td>
</tr>
<tr>
<td>• Questions or reaction activity</td>
<td></td>
</tr>
<tr>
<td>• Answer key</td>
<td></td>
</tr>
<tr>
<td><strong>Develop a Role Play</strong></td>
<td></td>
</tr>
<tr>
<td>Select an appropriate situation.</td>
<td></td>
</tr>
<tr>
<td>Identify the roles that learners will act out during the role play.</td>
<td></td>
</tr>
<tr>
<td>Determine whether learners will report the results of their discussion of the role play in writing or orally to the entire group.</td>
<td></td>
</tr>
<tr>
<td>Ensure that the final role play includes:</td>
<td></td>
</tr>
<tr>
<td>• Title</td>
<td></td>
</tr>
<tr>
<td>• Learning objectives</td>
<td></td>
</tr>
<tr>
<td>• Instructions</td>
<td></td>
</tr>
<tr>
<td>• Roles</td>
<td></td>
</tr>
<tr>
<td>• Description of the situation</td>
<td></td>
</tr>
<tr>
<td>• Discussion questions</td>
<td></td>
</tr>
<tr>
<td>• Feedback guidance</td>
<td></td>
</tr>
<tr>
<td><strong>Select a Game</strong></td>
<td></td>
</tr>
<tr>
<td>Ensure the game supports the learning objectives.</td>
<td></td>
</tr>
<tr>
<td>Ensure the game is appropriate for the number of learners.</td>
<td></td>
</tr>
<tr>
<td>Ensure the game can be conducted in the time available.</td>
<td></td>
</tr>
<tr>
<td>Following the game facilitate a discussion focusing on what the learners learned as a result of the game.</td>
<td></td>
</tr>
</tbody>
</table>
Preparing Effective PowerPoint Presentations

Create a PowerPoint Presentation

The steps and images in this section use PowerPoint 2016. If you have a different version, then the specific steps may be somewhat different. There are many resources online for your version of PowerPoint that will show you how to create a presentation.

Step 1
When you open PowerPoint, select a “blank” presentation (Figure 1). Note the “small” image of the slide on the left side of the screen. There is currently only one slide in this presentation.

Figure 1. Blank Presentation
Step 2

While you may want to use the blank presentation, you can also change the design of the presentation. In the upper left corner click on “Design” (Figure 2) and you will see a variety of design (or template) options to choose from. If you click on any of these, your presentation design will change. For the purpose of this module, we will continue with the blank presentation.

Figure 2. Design Options
Module TL05

Step 3
Click on the title slide to add the title of your presentation (Figure 3). Once you type your title (and subtitle if needed) you can change the size and color of the font. We will not go through those steps in this brief module. You should try all the various features in order to learn how to create the most effective look for your presentation.

Step 4
Save your presentation. On the “File” tab, choose “Save.” Pick or browse to a folder. In the “File name” box, type a name for your presentation, and then choose “Save.” Be sure to save the presentation where you can find it (e.g., in a folder for the course during which you will use the PowerPoint presentation).

Figure 3. Adding a Title
Step 5
Insert a new slide. On the “Home” tab, click “New Slide” and a new slide is inserted (Figure 4). Note that you now have a new slide that is asking for a title in the upper box and text in the lower box. On the left side of the screen you can see that there are now two slides.

Figure 4. Inserting a New Slide

Step 6
Insert the slide title and text. The slide title should be brief and should take no more than one line of text. The font size is pre-set to be larger than the font for text in the body of the slide. In Figure 5, the font color has been changed to draw attention to the title. The bullet points automatically appear in a new slide. You can change the shape of the bullets or even delete the first bullet and have no bullets (i.e., you may want to have a slide showing only a photo or graph with no text). In Figure 5, three bullets have been added to the slide. Try and remember to save your file after you create each slide just in case of a problem.

Figure 5. Adding Title and Text to a Slide

How to use hand sanitizer

- Apply the product to the palm of one hand (read the label to learn the correct amount).

- Rub your hands together.

- Rub the product over all surfaces of your hands and fingers until your hands are dry.
Step 7

Add photos and images to a slide. Adding images, photos, drawings, etc., can help improve the visual impact of the slide. In Figure 5, it appears as if there is space for a photo of someone using hand sanitizer. You can take your own photo or find a photo online that you have permission to use. Save the photo to your computer. To insert the photo, click on the “Insert” tab and then click “Pictures” (Figure 6). Find the photo you saved, highlight it, and click “Insert” and the photo will appear on your slide. You will need to move the photo around to find the best location. You may also need to change the size of the photo. To do this, double click on the photo and in the upper right corner the “Size” controls will appear. You can change the height or width (changing one will also change the other).

**Figure 6. Adding an Image to a Slide**

![Insert tab and Pictures option](image)

**How to use hand sanitizer**

- Apply the product to the palm of one hand (read the label to learn the correct amount).

- Rub your hands together.

- Rub the product over all surfaces of your hands and fingers until your hands are dry.
Step 8
Add speaker notes. PowerPoint offers a speaker’s notes feature that is especially important when using Presenter View, which displays your speaker notes while the full screen presents (Figure 7). When you are creating a slide, you will often have ideas of important points you will want to share when presenting the slide content. Or, you may want to conduct a brainstorming session, ask a key question, or share an example. The speaker’s notes feature allows you to record these notes and reminders (these notes will not appear on the screen when showing your slide presentation). This is especially important if someone other than the developer will be using the PowerPoint presentation. To open the notes pane, at the bottom of the window, click “Notes” as shown in Figure 8. You can then add your notes. In Figure 7, you will see that one note has been added to the slide.

Figure 7. Use Presenter View

Figure 8. Adding Speaker Notes

- Rub the product over all surfaces of your hands and fingers if your hands are dry.
Module TL05

Step 9
Start your PowerPoint presentation. For PowerPoint 2013 and 2016, when you connect to another monitor or project, presenter view will be automatic. When you have finished creating your PowerPoint presentation and want to show the slides, you will click on “Slide Show” at the top of the screen (Figure 9). To begin with the first slide, click on “From Beginning.” You can also begin with the current slide seen on your screen by clicking “From Current Slide.” Figure 10 shows the first slide (note that the slide color was changed so it would be clear against the white background of the paper). You can press the “Escape” key (Esc) on your keyboard to exit the PowerPoint show.

**Figure 9. Running Slide Show**

![Running Slide Show](image)

**Figure 10. First Slide in Slide Show**

![First Slide in Slide Show](image)
Here are some final reminders to keep in mind when you are creating your slides:

- Keep your text large enough—on average, a 24-point font size is best.
- Use images that are meaningful.
- Every bullet is followed by a capital letter.
- Each bullet has eight words or less.
- Use sharp and crisp phrases instead of complete sentences.
- Avoid the use of ALL CAPS as they are difficult to read.
- Limit the number of words you put on each slide.
- Avoid paragraphs of text—you will end up reading the words and boring your learners.
- Limit each slide to no more than 6 bullet points.
- Fancy is not always better—stick with simple fonts.
- Choose color combinations that make your text easy to read.
- Limit your graphics to 1–2 per slide. Too many graphics can be distracting.
- Slides are designed to supplement your presentation. They are not your “word-for-word” script. Keep it simple, and do not read word-for-word from your slides.
- Proofread and spell check! Proofread and spell check! Proofread and spell check!

**Do the Math**

Facilitators often have too many slides. So how do you keep the number of slides at a reasonable level? As a rule of thumb, assume it will take about 1–2 minutes to “present” the information on a slide. This means if you have a 30-minute presentation that you would have 15–30 slides maximum.

If you have created 60 slides for a 30-minute presentation, you will have about 30 seconds to present each slide, resulting in a rushed presentation (you may run out of time for the whole presentation, or you will run past the ending time of your presentation).
Module TL06: Selecting Assessment Methods

Module Overview

Introduction
We have all been learners and have taken tests. Well-written knowledge assessments or tests are used to determine if learners have achieved learning objectives. For example, one of the learning objectives states that the learner will “Identify the structure and functions of health care institutions and agencies.” To determine if the learner has achieved this objective the facilitator will develop and administer a knowledge assessment.

Learners must also develop and demonstrate competence in essential skills to deliver high-quality health care services after graduation. For example, one of the learning objectives states that the learner will be able to “Put on sterile gloves correctly following each of the steps in the performance checklist.” To determine if the learner has achieved this objective the facilitator will develop and administer a skill assessment.

As a facilitator in a professional health education program, you will be administering knowledge and skill assessments. There are several important reasons why we assess learning:

• To provide feedback to inform learners of their progress
• To determine if learners have achieved knowledge learning objectives
• To determine if learners can competently demonstrate specific skills
• To determine the quality of teaching

In this module, we will look at the various types of assessments you can use to measure learner knowledge and skills. In other modules, you will learn how to develop and administer several of these methods of assessment.

Module Objectives
By the end of the module, learners will be able to select assessment methods. To meet this objective, you will:

• Describe key principles of assessment and assessment method selection
• Select methods for assessing learner knowledge
• Select methods for assessing learner skill development

Principles for Assessment and Method Selection
As discussed earlier, assessment is used both to help learners learn (formative) and to make objective decisions about learner mastery and advancement or matriculation (summative). Listed below are key principles to consider when selecting assessment methods.

• Assess and evaluate critical and important competencies over trivia
• Select methods that assess application of learning or analysis of information over recall of facts
• Use caution with construction questions, or provide objective scoring criteria with model answers
• Select methods that “mirror” the desired performance
Methods for Assessing Learner Knowledge

Valid learner assessment of knowledge is dependent on the construction of high quality test questions. Sometimes test questions are also referred to as test items. There are many test question formats available to choose from, each with their unique advantages and disadvantages. Test questions can be divided into two general categories.

**Construction questions** require the learner to provide or construct a response to a question. Fill in the blank, essays, and portfolios are examples of commonly used construction question formats. Construction questions have the advantage of being easy to write and can assess clinical decision making and communication skills. Construction questions however are difficult to score and can be unreliable. When construction questions are used, they are best assessed qualitatively using the judgment of the facilitator.

**Response questions** allow the learner to select from a list of possible responses provided. Multiple-choice questions (MCQ), true-false (TF), and matching are commonly used response question formats. High quality response questions are difficult and take practice and experience to develop. These questions are easy to analyze, store, administer and score and are therefore the focus of this manual.

The following methods can be used for the assessment of learner knowledge:

- Drills, quizzes, and practice tests
- Written exercises
- Case studies, clinical scenarios, and patient management problems
- Essays examinations
- Portfolios
- Objective written examinations (e.g., true-false, multiple-choice, matching, and short-answer questions)
- Objective structured practical examinations (e.g., Objective Structured Clinical Examination or OSCE)
- Oral examinations

**Drills, Quizzes, and Practice Tests**

Drills are verbal question-and-answer periods during a classroom or skill development session. They help the facilitator get a general impression of the learners’ understanding of the subject. Quizzes and practice tests are short versions of written examinations, and are designed to help prepare learners for a written examination.

**Written Exercises**

Written exercises involve asking learners to read and then answer questions to check their understanding of the reading. They can also involve asking learners to read a case study, or view a video, slides, or photographs and then respond to related questions. Exercises are typically completed as homework.

**Case Studies, Clinical Scenarios, and Patient Management Problems**

Case studies, clinical scenarios, and patient management problems typically begin with information followed by a series of questions to which the learner should respond. They simulate problem solving or clinical decision-making, and may be completed using paper and pencil or a computer. They are particularly valuable as they generate lively discussion about the pathways and decisions taken. Refer to other modules in this program for more information on developing and using case studies.
Essay Examinations

An essay examination is a common type of written examination in which learners are asked to write down what they know about a subject or question. Essay questions are easy for facilitators to develop and can test the learners’ ability to organize and express their ideas. However, the scoring of essay questions is subjective and very time-consuming. Also, when learners must write in a language that is not their first language, this can create an additional challenge.

One of the best ways to increase objectivity in scoring of essay examinations is to develop an answer key for each question. The answer key is a listing of all the points, ideas, or statements that will be counted as correct answers when the test is scored.

Modified essay questions are more reliable and feasible. These are similar to a patient management problem in that they provide a scenario and specific questions that a learner must answer. For example, “What are the three most likely diagnoses?” or “List five specific questions that would help you narrow the diagnosis.”

Portfolios

A learner portfolio is a compilation of academic work and other forms of educational evidence assembled for the following purposes:

- Evaluating coursework quality, learning progress, and academic achievement
- Determining whether learners have met learning standards (see http://edglossary.org/learning-standards/) or other academic requirements for courses, grade-level promotion, and graduation
- Helping learners reflect on their academic goals and progress as learners
- Creating a lasting archive of academic work products, accomplishments, and other documentation

Objective Written Examinations

An objective examination or assessment is one in which the opinions of the facilitator will not impact the score the learner receives (as can happen with an essay examination). For example, a multiple-choice question is either answered correctly or incorrectly.

The objective written examination may include multiple-choice, matching, true-false, and short-answer questions. It is very structured and each question requires a short, restricted answer or the selection of the correct response. The objective written examination can cover a lot of content, is easy to score and, if appropriately developed, can assess both recall and cognitive skills such as problem solving. Refer to another module in this program for more information on developing and administering written examinations or knowledge assessments.

Objective Structured Practical Examinations

The structured practical examination can assess knowledge, skills, and attitudes. This approach to assessment is described in detail other modules in this program. It is not really an assessment method but rather an administrative structure in which a variety of assessment methods can be incorporated. Typically, learners rotate through a series of stations where they answer questions (orally or written), or perform tasks under observation. Marking sheets for the stations requiring written responses and checklists for the observed stations are prepared beforehand to improve reliability.

The **Objective Structured Clinical Examination (OSCE)** is one of the most well-known forms of structured practical examinations. The OSCE is a form of performance-based testing used to measure a learner’s clinical competence. During an OSCE, learners are observed and evaluated as they go through a series of stations in which they interview, examine and treat standardized or simulated patients who present with some type of problem.
**Oral Examinations**

Oral examinations are a traditional part of healthcare providers’ education. Although they involve important personal contact between the examiners and learners, they suffer from serious limitations such as non-standardized questions, limited objectivity, and the considerable time their administration requires. In view of these limitations, oral examinations should be used only to test competencies that cannot be tested by other methods of assessment. These competencies include alertness, ability to express oneself, confidence, decisiveness, and ability to discuss logically.
Module TL07: Selecting Learning Resources

Module Overview

Introduction
One of your responsibilities as a professional health education program facilitator is to select the instructional content you and your learners will use during a course. Examples of instructional materials that can include relevant content for your course are listed below.

- Textbooks
- Workbooks
- Facilitator made exercises and assignments
- Articles
- Courses
- Journals
- Documents
- Reports
- Videos
- Photos
- Website content, articles and documents
- CD and DVD materials
- Narrated PowerPoint presentations
- Equipment manufacturer materials

Module Objectives
By the end of the module, learners will be able to select instructional content.

To meet this objective, you will:

- Explain criteria and principles for selecting meaningful and appropriate instructional content
- Define multimedia content
- Identify meaningful and appropriate content and resources
- Apply criteria to evaluate quality and accuracy of resources, including multimedia content
- Provide appropriate citation and attribution for resources used, including multimedia content
Select Appropriate Instructional Content

Instructional materials support learning content, allow your learners to engage in the application of concepts, and provide an opportunity for assessment of learning. In some professional health education courses content is “transmitted” to learners only through lecture. Learners do not have access to instructional materials and instead must take notes. This is an inefficient process and results in learners not learning enough about the content to achieve the learning objectives.

A much more effective approach is to select and use a variety of instructional materials allowing the learners to read, study, watch and interact with the content. This approach will support the learners during the learning process.

The key is to identify the “essential” content. If there is too little content, then learners will not develop the required knowledge. If there is too much content, then learners can get lost trying to figure out what they need to know and be able to do to achieve the learning objectives.

Multimedia instructional content is very important. Multimedia is learning from words and pictures. Examples of multimedia learning include watching and listening to a narrated animation, watching a video demonstration of a procedure, playing an educational video game, or attending a PowerPoint presentation.

Below are principles to keep in mind when selecting appropriate materials to teach the required course content.

- Materials must be consistent with the course description and learning objectives.
  - Review the course description in your syllabus.
  - Review the learning objectives in your syllabus.
  - Ensure that you have instructional materials for each of the learning objectives.

- Materials must be appropriate for your learners.
  - Check that the language in which the materials are written is appropriate for all of your learners.
  - Check that the reading level of the materials is appropriate for your learners. If the materials are written at too high or low of a reading level, then the learners may become frustrated.
  - Ensure the content is appropriate for the level required by your learners. For example, an anatomy and physiology textbook written for secondary level learners may be too basic for adult learners in a professional health education program.
  - Check that the content is engaging. Does the layout make the content easy to read? Are there illustrations, photos and images to reinforce content? Are examples appropriate?
  - Check if there are practice activities (e.g., exercises, case studies, problem-solving activities) and assessment tools (e.g., quizzes, tests) included with the materials.

- Materials must be accurate.
  - Materials must be up to date and consistent with national policies and guidelines.
  - Materials must be accurate and un-biased, this is particularly important when pulling resources from the internet, where the source may or may not be reputable.

- Materials must be essential for learning the required content.
  - Ensure that the materials contain the “essential” content. Essential meaning the minimum content required for learners to understand and apply. For any specific topic (e.g., infection prevention) you can select so many materials that the learners may feel overwhelmed. This is not to say that you should not have supplemental resource materials for the learners. We are talking about the materials necessary for learning the required content.
How can you assess your instructional content and reduce it to essential only? Figure 1 will help you filter instructional content. The answer to each question should be “yes” in order to keep the content in question.

**Figure 1. Filters for Removing Non-Essential Content**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Ask yourself:</th>
</tr>
</thead>
</table>
| Objectives | • Does the content directly support the objective?  
• Do practice activities and assessment items tie to the objectives? |
| Learners  | • Is the content appropriate for the learners?  
• Is the content relevant and meaningful to the learners?  
• Are the vocabulary and examples culturally appropriate?  
• Is the content non-discriminatory? |
| Content Features | • Is the content engaging, visually appealing and high-quality?  
• Do images and activities support the content? |
| Source    | • Is the content source a reputable organization or media outlet without bias?  
• Can the data be replicated or found in other sources also? |

**Using and Citing Open Educational Resources**

There are many open educational resources available that you can use in teaching. Open education resources are defined as digitized materials offered freely and openly for educators, learners, and self-learners to use and reuse for teaching, learning and research. This includes many multimedia resources available for your use. However, you are accountable for your content, so be sure to evaluate resources you find online using the criteria provided in Figure 2.
Figure 2. Checklist for Evaluating Online Resources

How to Evaluate Online Content

**Authorship**—Establish the author profile and credibility
- The author information is available on the content or publication.
- Publisher details are shown on the page.
- The author was previously cited in relation to his or her content.
- The author is credible and shows qualification about the content subject.
- The author is affiliated with an academic institution or credible organization.
- The author is considered an expert about the subject matter.

**Up-to-Dateness and Relevance**
- The content and information is up-to-date and relevant.
- The content uses statistical information with title and date for referencing.
- The content shows 'most recent changes and updates' on the content itself.
- The website is well maintained with very minimal to no broken links.

**Accuracy**
- The content is free from spelling errors.
- The content is well-written and grammatically correct.
- The content has been thoroughly edited and reviewed.
- The sources indicated on the content is reliable and verifiable elsewhere.

**Purpose and Objectivity**
- The content serves its purpose — teach, inform, explain, persuade, etc.
- The author or publisher is not biased on covering any subject.
- The intended audience is clearly identified within the content.
- You understand the content is covered with facts, opinion or propaganda.
- The point of view is clearly written throughout the content.
- The publisher clearly owns responsibility on providing accurate information.

Reproduced with permission from Hosting Facts: https://hostingfacts.com/evaluating-online-resources
### Selecting Instructional Content Checklist

This checklist contains the primary steps you will follow to select instructional content. Check each item as you complete it.

<table>
<thead>
<tr>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apply Selection Criteria</strong></td>
<td></td>
</tr>
<tr>
<td>Ensure the materials are consistent with the course description and learning objectives.</td>
<td></td>
</tr>
<tr>
<td>Ensure the materials are appropriate for your students.</td>
<td></td>
</tr>
<tr>
<td>Ensure that the materials are essential for learning the required content.</td>
<td></td>
</tr>
<tr>
<td><strong>Review Open Educational Resources (OER)</strong></td>
<td></td>
</tr>
<tr>
<td>Recognize an information need.</td>
<td></td>
</tr>
<tr>
<td>Select and evaluate information sources.</td>
<td></td>
</tr>
<tr>
<td>Retrieve the information.</td>
<td></td>
</tr>
<tr>
<td>Evaluate the information critically.</td>
<td></td>
</tr>
<tr>
<td>Adapt the information as needed.</td>
<td></td>
</tr>
<tr>
<td>Organize the information.</td>
<td></td>
</tr>
<tr>
<td>Communicate the information.</td>
<td></td>
</tr>
<tr>
<td>Determine whether the original information need has been met.</td>
<td></td>
</tr>
<tr>
<td><strong>Resource Evaluation Criteria</strong></td>
<td></td>
</tr>
<tr>
<td>Does the content directly support the objective?</td>
<td></td>
</tr>
<tr>
<td>Does the content support the activity?</td>
<td></td>
</tr>
<tr>
<td>Is the content appropriate?</td>
<td></td>
</tr>
<tr>
<td>Is it relevant and meaningful?</td>
<td></td>
</tr>
<tr>
<td>Are the vocabulary and examples culturally appropriate?</td>
<td></td>
</tr>
<tr>
<td>Are images inclusive and non-discriminatory?</td>
<td></td>
</tr>
<tr>
<td>Is the content engaging, visually interesting, and of sufficient quality?</td>
<td></td>
</tr>
<tr>
<td>Is it accurate?</td>
<td></td>
</tr>
<tr>
<td>Is the source a reputable organization or media outlet without a media bias?</td>
<td></td>
</tr>
<tr>
<td>Can the data be replicated or found in other sources?</td>
<td></td>
</tr>
<tr>
<td>Planning Step</td>
<td>Comments</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Does the content focus directly on practice activities?</td>
<td></td>
</tr>
<tr>
<td>Citation and Attribution Information</td>
<td></td>
</tr>
<tr>
<td>Follow copyright laws and guidelines.</td>
<td></td>
</tr>
<tr>
<td>Follow creative common guidelines and license requirements.</td>
<td></td>
</tr>
<tr>
<td>Properly cite all references and sources.</td>
<td></td>
</tr>
<tr>
<td>Sequence Instructional Content</td>
<td></td>
</tr>
<tr>
<td>Simple-to-complex</td>
<td></td>
</tr>
<tr>
<td>Job performance order</td>
<td></td>
</tr>
<tr>
<td>Critical sequence</td>
<td></td>
</tr>
<tr>
<td>Mastery sequence</td>
<td></td>
</tr>
<tr>
<td>Complete an Instructional Planning Worksheet</td>
<td></td>
</tr>
<tr>
<td>Learning objectives written to include behavior, conditions and criteria.</td>
<td></td>
</tr>
<tr>
<td>Variety of learning activities selected to help ensure students can achieve the learning objectives.</td>
<td></td>
</tr>
<tr>
<td>Learning activities “mirror” desired behavior and are relevant and purposeful.</td>
<td></td>
</tr>
<tr>
<td>Identify appropriate student assessment methods for each learning objective.</td>
<td></td>
</tr>
<tr>
<td>Identify appropriate instructional content for each learning objective.</td>
<td></td>
</tr>
</tbody>
</table>
Module TL08: Facilitating Learning Activities

Module Overview

Introduction
Learning is a partnership between the facilitator and learners; the development and achievement of competency is a responsibility—and reward—that they share. The facilitator is also considered a facilitator of learning. In simplest terms, to facilitate is to make things easy or easier. So, in the role of facilitator, the facilitator aims to make learning easier for the learner. This is accomplished by enhancing the capability of learners through building a positive learning environment and using a variety of facilitation methods and techniques that are consistent with current, evidence-based learning principles and competency-based learning. Unlike the traditional facilitator, the facilitator is not considered as the source of all there is to learn in a course.

This module introduces and explains basic facilitation skills.

Module Objectives
By the end of the module, learners will be able to facilitate learning.

To meet this objective, you will:

- Create a positive learning environment
- Demonstrate basic facilitation skills, including ensuring gender-responsive interaction in the classroom
- Use audiovisual aids
- Apply the facilitation process

Creating a Positive Learning Environment

Figure 1 displays the same graphic used earlier to depict the skills, knowledge and attitudes and behaviors that are part of developing new competencies. As faculty, you play the primary role in facilitating learning, and the environment within which learning occurs has a tremendous impact on the quality of the learning experience. A positive learning environment enables trust which supports learning and helps learners better achieve the course objectives. Because the facilitator sets the tone for the course, how the facilitator delivers information is the key to establishing and maintaining a positive learning environment during learning—how something is said is as important as what is said. The effective facilitator creates an atmosphere of capability, one that helps learners feel they can master the new knowledge, skills and attitudes being taught.

Important components of a positive learning environment are gender sensitivity and responsiveness. Gender sensitivity is defined as the ability to recognize gender issues. You may be thinking, “I am a facilitator and I work with the learners who enroll in my courses. I do not understand why I should be aware of gender issues.” From the facilitator’s perspective, gender sensitive teaching equally supports the learning of male and female learners. The fact that there may be as many female as male learners enrolled in your institution does not make your institution gender sensitive. Gender issues may be raised by the selection of course materials, presentation habits of facilitators (e.g., always referring to health professionals as “he”), asking primarily male or female learners to lead small-group activities, etc. It is important that all learners feel respected and capable in your classroom. You do this largely by modeling professional and gender-sensitive teaching and through use of effective facilitation skills.
Creating a positive learning environment—or atmosphere of capability—is one of the major goals of facilitation, and a cornerstone of effective courses. To help learners feel that achievement is within reach, and to achieve, the effective facilitator:

- **Is clear and explicit about what is to be achieved;** lets learners know what they need to learn during the course, and the skills in which they are expected to achieve competency.

- **Builds logically and gradually from simpler concepts and tasks to more complex ones;** starts with what is “normal” in managing a situation or performing a skill, before moving on to complicated situations and skills.

- **Provides encouragement as well as positive, specific and constructive feedback**—reinforcing the correct way of doing something and suggesting specific ways to improve.

- **Treats learners as individuals, with individual learning approaches.**
  - Provides opportunities for them to learn the way they learn best (reading, practicing, working with others, etc.)
  - Builds on their unique areas of expertise and work experiences during discussions and group/small group activities

- **Ensures a gender-responsive atmosphere, where male and female learners are equally heard and respected.**
  - Does not allow for disrespectful treatment or harassment of learners based on sex or gender identity.
  - Provides equal opportunity for male and female learners to contribute to discussions and engage in practice activities.

- **Creates an atmosphere of honesty and openness.**
  - Models such behaviors and attitudes
  - Encourages learners to admit when a concept is difficult or unclear
  - Admits when she or he does not know something, while assuring learners that the facilitator will find the answer and get back to them (the facilitator is not the source of all knowledge)
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- **Encourages discussion.**
  - Guides discussions to identify barriers to learning and solutions for overcoming those barriers
  - Enables learners to learn from each other’s related experiences and areas of expertise
- **Requests—and responds to—feedback from learners.**
  - Is not afraid to elicit the opinion of learners
  - Makes changes based on learner feedback, as appropriate

**Basic Facilitation Skills**

During a course, the facilitator must be comfortable facilitating a variety of learning activities (e.g., presentation, case study, role play, skills demonstration, skills practice, etc.) to develop knowledge, skills and attitudes in the learners. To be an effective facilitator, the facilitator uses a range of techniques—including those that follow to involve learners, maintain interest and stay on track:

- **Follow a plan,** which includes the objectives, introduction, body, activity, audiovisual reminders, summary and evaluation. Prepare and use facilitator’s notes to enhance the execution of that plan.
- **Communicate in a way that is easy to understand.** Many learners will be unfamiliar with the terms, jargon and acronyms of a new subject. The facilitator should use familiar words and expressions, explain new language and attempt to relate to the learners during the presentation.
- **Maintain eye contact with learners.** Use eye contact to “read” faces. This is an excellent technique for establishing rapport and getting nonverbal feedback on how well learners understand the content.
- **Project your voice** so that those in the back of the room can hear clearly (particularly important in presentations). Vary volume, voice pitch, tone and inflection to maintain learners’ attention. Avoid using a monotone voice, which is guaranteed to put learners to sleep!
- **Avoid the use of slang or use repetitive words,** phrases or gestures that may become distracting with extended use. *Examples:* Repeatedly saying things like: “OK, now...,” “Is that clear?” or “Do you see what I’m saying?”
- **Display enthusiasm about the topic and its importance.** Smile, move with energy and interact with learners. The facilitator’s enthusiasm and excitement are contagious, directly affecting the morale and motivation of the learners.
- **Use appropriate audiovisual aids** (particularly important in presentations and demonstrations).
- **Be sure to ask both simple and more challenging questions.**
- **Provide positive feedback** to learners, even during activities that are less “hands-on” such as presentations and discussions. Examples include:
  - “Thanks for sharing that story. It really helps illustrate the point.”
  - “Anne Marie has made an excellent comparison!”
- **Use learners’ names as often as possible.** This will foster a positive learning climate and help keep the learners focused on the presenter. Examples include:
  - During questioning (e.g., “Miriam, why do you disagree with Jane?”)
  - When providing positive feedback (e.g., “Very good point, Ilka!”)
  - When referring to comments previously made by learners (e.g., “As Tadesse mentioned earlier, …”)
• **Display a positive use of humor** related to the topic. Examples include:
  - Cartoons or quotes/sayings on a flip chart
  - Photos/cartoons for which learners are asked to create captions
  - Humorous stories and anecdotes

• **Provide smooth transitions between topics/activities.** Within a given presentation or learning session, several separate yet related topics or activities may be addressed or included. When shifts between topics or activities are abrupt, learners may become confused and lose sight of how everything fits together in the bigger picture. The facilitator must ensure that the transition from one topic or activity to the next is smooth through a variety of approaches. Examples include:
  - A brief summary
  - A series of questions
  - Relating content to practice or an exercise (case study, role play, etc.) before moving on to the next topic or activity

• **Be an effective role model.** The facilitator should be a positive role model in dress, appearance, manner and enthusiasm for the course.

• **Begin and finish at the scheduled times.** Keeping on time sets a precedent, allowing you to expect and request that learners do so as well. If need be, learners can refer to reference materials to read up on topics you have had to reduce or omit because of time constraints.

**Sample 1** is a checklist of basic facilitation skills. You can use this checklist to help ensure that you are using the skills to engage your learners.

### Use of Audiovisual Aids
Audiovisual aids or use of multimedia content help facilitators communicate information clearly and maintain learner interest, making them among the most useful of teaching tools. Writing on a board or using diagrams and photos in a presentation, for example, reinforces or supplements course content—allowing learners to absorb more information more easily.

Examples of audiovisual aids include:

• Paper handouts
• Computer graphics/slide presentations (refer to the module on creating and using PowerPoint presentations)
• Writing boards
• Flipcharts
• Videos

Although there are some specific uses and tips for each type of visual aid, some basic rules apply in every situation.

• **Prepare and/or carefully review aids beforehand,** if possible and appropriate, particularly if they are complicated (e.g., detailed graphics, instructions for complex activities).
• Make sure aids are easy to read (not overcrowded with text or design elements).
• Use aids to emphasize important information (further emphasis can be achieved with underlining, boldface, etc.).
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- Always check any equipment needed ahead of time.
- Make sure aids are legible and visible from anywhere in the room.
- Always face and focus on the learners, not the aid itself. Use text provided as a prompt; not a script to be read aloud.

The Facilitation Process

In addition to creating a positive learning environment, largely through applying basic facilitation skills introduced in this chapter, the facilitator should become proficient in the “facilitation process.”

The facilitation process is a sort of template that applies to the course as a whole and any and all learning sessions and learning activities. In brief, this process involves introducing, conducting, and summarizing sessions and activities in a way that engages and enables learners to get the most out of each.

Introducing Learning Sessions and Learning Activities

In the context of the facilitation process, the experienced facilitator understands that the first few minutes of any course session or activity are critical. Learners may have their minds on other matters, be unclear regarding what the upcoming activity is about, or have little interest in the topic. Effectively introducing learning sessions or activities is, therefore, an important component in the process.
Basic Facilitation Skills Checklist

This checklist contains the primary skills you will demonstrate to facilitate learning. Check each skill for a specific method as it is demonstrated.

<table>
<thead>
<tr>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>I follow a session plan that includes an introduction, interactive methods to present the content, one or more practice activities, and a summary.</td>
<td></td>
</tr>
<tr>
<td>I communicate in a way that is easy to understand.</td>
<td></td>
</tr>
<tr>
<td>I move around the room and maintain eye contact with the learners.</td>
<td></td>
</tr>
<tr>
<td>I project my voice so that all learners can hear.</td>
<td></td>
</tr>
<tr>
<td>I display enthusiasm about the topic and its importance.</td>
<td></td>
</tr>
<tr>
<td>I equally take contributions and inputs from male and female learners.</td>
<td></td>
</tr>
<tr>
<td>I use content that presents male and female roles equally.</td>
<td></td>
</tr>
<tr>
<td>I use audiovisuals and multimedia effectively.</td>
<td></td>
</tr>
<tr>
<td>I ask both simple and more challenging questions to male and female learners equally often.</td>
<td></td>
</tr>
<tr>
<td>I provide positive feedback to learners.</td>
<td></td>
</tr>
<tr>
<td>I use learner names as often as possible.</td>
<td></td>
</tr>
<tr>
<td>✓</td>
<td>Planning Step</td>
</tr>
<tr>
<td>---</td>
<td>--------------</td>
</tr>
<tr>
<td></td>
<td>I provide smooth transitions between topics and activities.</td>
</tr>
<tr>
<td></td>
<td>I model professional and respectful behaviors.</td>
</tr>
<tr>
<td></td>
<td>I begin and end at the scheduled times.</td>
</tr>
</tbody>
</table>
# Handout: Facilitating Small-Group Discussions Checklist

This checklist contains the primary skills you will demonstrate to facilitate small-group activities. Check each skill for a specific method as it is demonstrated.

<table>
<thead>
<tr>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planning Skills</strong></td>
<td></td>
</tr>
<tr>
<td>I have a course syllabus with clear learning objectives.</td>
<td></td>
</tr>
<tr>
<td>I have a course schedule which indicates what is planned for each course session.</td>
<td></td>
</tr>
<tr>
<td>I have a session plan for each session in the course schedule.</td>
<td></td>
</tr>
</tbody>
</table>

## Facilitating Small-Group Activities

Create small groups by either:
- Assigning learners to groups
- Asking learners to count off “1, 2, 3,” etc., having all the “1s” grouped together, all the “2s” grouped together, and so on
- Asking learners to form their own groups or
- Asking learners to draw a group number (or group name, or color) from a basket

Provide activity instructions:
- In a handout
- On a flipchart
- On a slide and/or
- Orally by the facilitator

Activity instructions include:
- Directions
- A time limit
- A situation or problem to discuss, resolve or role play
- Learner roles (if a role play) and
- Questions for a group discussion

Conclusion of the activity includes:
- Reports from each group
- Responses to activity questions
- Role plays developed and presented by learners in the small groups and/or
- Recommendations from each group
<table>
<thead>
<tr>
<th>✔</th>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facilitate a Group Discussion</strong></td>
<td>Arrange seating to encourage learner interaction (e.g., tables and chairs set up in a U-shape, square or circle so that learners face one another).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>State the topic as part of the introduction.</td>
<td></td>
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<tr>
<td></td>
<td>Shift the conversation from the facilitator to the learners.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Act as a referee and intercede only when necessary.</td>
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</tr>
<tr>
<td></td>
<td>Summarize the key points of the discussion periodically.</td>
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</tr>
<tr>
<td></td>
<td>Ensure that the discussion stays on the topic.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use the contributions of each learner and provide positive reinforcement.</td>
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</tr>
<tr>
<td></td>
<td>Minimize arguments among learners.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Encourage all learners to get involved.</td>
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</tr>
<tr>
<td></td>
<td>Ensure that no one learner dominates the discussion.</td>
<td></td>
</tr>
</tbody>
</table>
| **Facilitate a Role Play** | Before the role play:  
- Brief the learners on their roles  
- Explain what the other learners (those not playing a role) should be looking for during the role play and how to document and share their feedback afterward |  |
<table>
<thead>
<tr>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the role play:</td>
<td></td>
</tr>
<tr>
<td>• Try not to intervene as facilitator while the role play is being performed</td>
<td></td>
</tr>
<tr>
<td>• Provide feedback after the role play is performed. Feedback is as important as the role play itself</td>
<td></td>
</tr>
<tr>
<td>• To help organize the feedback session, follow the structured observation guidance you gave learners prior to the role play including:</td>
<td></td>
</tr>
<tr>
<td>• What they are observing for</td>
<td></td>
</tr>
<tr>
<td>• What tools they should use to record their observations</td>
<td></td>
</tr>
<tr>
<td>• What will be discussed later during the post-observation debrief</td>
<td></td>
</tr>
</tbody>
</table>

**Facilitate a Case Study**

Present the case study to the learners.

Ask learners to review the case study individually or in small groups.

Reactions to the case study include:

• Reports from individuals or small groups
• Responses to case study questions
• Role plays presented by individuals or small groups and/or
• Recommendations from individuals or small groups.

**Facilitate a Brainstorming Session**

Explain the ground rules:

• All ideas, thoughts and suggestions are accepted (added to the list)
• All discussion of the ideas, thoughts and suggestions is delayed until after the list is generated
• Criticism of ideas, thoughts, and suggestions is not allowed

Announce the topic and share the objective.

Maintain a written record on a flipchart or writing board of the ideas and suggestions.

Provide opportunities for anonymous brainstorming by giving the learners cards on which they can write their comments or questions.
<table>
<thead>
<tr>
<th>✔</th>
<th>Planning Step</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Involve all the learners and provide positive feedback to encourage more input.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review written ideas and suggestions periodically to stimulate additional ideas.</td>
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</tr>
<tr>
<td></td>
<td>Conclude brainstorming by reviewing, discussing and evaluating the ideas.</td>
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</tbody>
</table>
Module CP01: Facilitating Skill Development

Module Overview

Introduction
When a healthcare professional (e.g., midwife, medical laboratory technician, nurse, doctor) has a skill, she or he can perform a group of steps or tasks correctly or to a standard. The skill can be a procedural task, such as demonstrating how to take blood pressure or an intellectual task, such as calculating how many vials of a vaccine or laboratory reagents are needed for the next six months. The delivery of healthcare services requires a combination of skills, primarily in the areas of communication, psychomotor or hand skills, and critical thinking skills.

- **Communication** skills include listening, asking questions, educating, informing, advising, counseling, and checking understanding. Healthcare providers need communication skills not only in interactions with patients, but also with the families of patients and with other healthcare providers.

- **Psychomotor** skills or hand skills, require repetition, are often done in a specific step-by-step order, are appropriate for small group practice and usually require use of some type of models.

- **Critical thinking and clinical decision making** skills entail drawing on experience and seeking out new information to analyze, reason, reflect, create ideas, and clarify information. Critical thinking is essential for solving problems, managing workloads and priorities and making sound decisions.

Objective
After completing this module, you will be able to more effectively facilitate skill development for health professions learners.

Supporting Objectives
To meet this objective, you will:

- Identify the steps in the skill development process
- Review tips for teaching each type of skill
- Describe coaching skills needed for skill development
- Describe principles for giving effective feedback
- Describe strategies for facilitating skills practice
- Demonstrate skills using a checklist
- Demonstrate coaching skills in practice and feedback sessions

Steps of Skill Development
As shown in Figure 1 below, skills can be demonstrated, practiced, and assessed in a simulated or real environment (e.g., classroom, laboratory, clinic, hospital). Depending on the difficulty and complexity of a skill, it may take a range of times and practice opportunities for learners to achieve competency. At a minimum, learners should see a demonstration of the skill in either a simulated or real environment (as with MLT learners in the lab setting). Learners should then practice the skill and receive feedback on their performance.
The job aid at the end of this module summarizes what to do before, during, and after each step of the skills development process:

- Introduction and demonstration
- Practice with feedback
- Assessment

**Figure 1. Steps for Developing Healthcare Delivery Skills**

In addition to developing competency in a variety of skills, learners need to demonstrate appropriate attitudes and behaviors. It is important to note that the above steps can also be used to practice and assess demonstrated attitudes/behaviors (which are usually integrated with practice and assessment of skills).

**Competency-Based Tools**

Competency-based education includes the teaching learning and assessment activities that enable learners to acquire and demonstrate a predetermined set of knowledge, skills and behaviors. The intended outcome of a competency-based program is health professionals who can practice at defined levels of competence. Each learner is allowed sufficient time and practice opportunities to acquire and demonstrate knowledge and skills. Competency-based tools such as checklists, algorithms, or standard operating procedures should be used to provide guidance on the critical steps or components of each skill. This helps guide demonstration, practice and assessment. The same checklists used to assess learners, should be used by them during practice.

**Demonstrate a Skill**

The first step in the skills development process, in both simulated and real environments, is introducing and demonstrating a skill. Skills such as taking a history, performing a physical examination, screening for blood donors, or selecting a treatment often can be demonstrated by showing a video, or by acting out the skill with a simulated patient or anatomic model. Other methods can be used to demonstrate skills in the areas of communication or critical thinking, including role plays, case studies, patient scenarios, or clinical simulations. It can be challenging to demonstrate nonlinear skills that involve decision-making points, but it is critical to demonstrate the correct performance of every step of a skill before learners try to practice it.

**Before: Introduce the Skill**

Before demonstrating a skill, it is essential that you introduce it and provide an overview. When introducing a skill describe:

- what the skill is,
• why the skill is important,
• when it should be used,
• the objectives of the demonstration, and
• the steps involved in performing the skill.

Facilitators need to assess to what degree learners understood the information in the introduction. They can find this out by asking open-ended questions such as, “Why is this skill important?” “When should you use this skill?” or “What are the main steps in performing the skill?” This two-way communication will also help establish a dialogue and feeling of openness with and among learners.

**During: Demonstrate the Skill**

Make sure everyone will be able to clearly see what you are doing and ask if anyone has any questions. Use visuals aids, teaching aids such as anatomic models, or other appropriate demonstration methods (e.g., role plays, simulated patients). When applicable, use the checklist, standard operating procedure, or other tool to help learners follow the steps as you demonstrate the skill.

Listed below are some different ways to demonstrate a skill:

• Show slides or a video in which the steps and their sequence are demonstrated.
• Perform a role play in which a learner simulates a patient or caretaker (e.g., parent of a small child) and responds much as a real patient or caretaker would.
• Use anatomic models to demonstrate a skill.

Demonstrate the skill in as realistic a manner as possible, using a variety of methods, and using actual equipment and materials that would be used in the clinical or practical setting. Whenever possible, demonstrate a skill (or a procedure that involves several skills) using the whole-part-whole approach:

• Demonstrate the whole procedure from beginning to end to introduce learners to the entire procedure;
• Isolate or break down the procedure or activity into parts and allow practice of the individual parts of the procedure; and
• Demonstrate the whole procedure again and then allow learners to practice it from beginning to end.

As you demonstrate skills, use the tips listed below to make the demonstration more effective.

• **Always demonstrate the skill correctly.** Remind the learners to follow along with the competency-based tool if one is available. Use equipment and materials correctly. When demonstrating a skill, it is important to avoid using shortcuts.

• **Interact with the learners.** It is not enough to perform the skill correctly and visibly. You must explain what you are doing and emphasize the important points. During the demonstration, explain to learners what is being done—especially any steps that are difficult or hard to see. Take enough time so that they can observe and understand each step. **Ask questions** of learners to keep them involved, such as, “What should I do next?” or “What would happen if...?” Encourage questions and suggestions. Again, a handout or other learning tool will help learners learn the necessary points.

• **Use a learning tool for complicated skills.** Particularly for complicated skills, during the demonstrations the learners should refer to a competency-based tool such as a checklist, algorithm, or standard operating procedure. This reinforces the standard way of performing the skill.
Module CP01

After: Summarize the Demonstration
Discuss the demonstration and ask the learners if they have any questions. Briefly review the learning tool if one is available. This is an excellent time to ask learners questions to assess their understanding of the skill.

Practice, Coaching, and Feedback
The most important step in teaching and learning skills is practice. Practice is the performance by learners of the skill in the presence of a facilitator, tutor, or clinical preceptor or clinical instructor or lab practicum supervisor who acts as a coach. Practice and coaching ensures that learners really master the skills and can perform them competently.

After you introduce, demonstrate, and discuss a skill, observe and coach learners as they practice it. Monitor learners’ progress. Listen, question, give feedback, and help learners overcome problems. Initial skills should be relatively easy and short, so that learners experience success and reinforcing feedback right away. As learners become more competent, you can introduce more difficult skills. The following activities should be conducted before, during, and after practice with feedback.

Before: Introduce the Practice Session
To the greatest extent possible, practice should be set up to resemble real-life situations that graduates will face in their future careers, using tools and materials that they will use in the workplace.

After arriving at the classroom or practice site, review the skill with the learners, including the steps that will be emphasized during the session. Ask if they have any questions before they begin. If competency-based tools are available, ask learners to refer to them during the practice session. Discuss the roles of the facilitator, learners, and other instructors during the session, specifying who will practice and who will observe and give feedback. If the group of learners is large and the number of facilitators or tutors is limited, there are several options you can choose from, including:

- Dividing learners into small groups, and having them demonstrate a staggered rotation through the practice area.
- Identifying other persons, such as tutors or more senior learners, who could observe the learners during practice and give feedback.
- Asking learners to work in pairs or groups of three and take turns practicing, observing, and giving feedback to each other. In this option, the facilitator or tutor should move from group to group to observe learners as they practice. At the end of the session, each group should report to the larger group the main results of their practice, such as the types of skills practiced, the main difficulties encountered, and the main achievements.

During: Facilitate the Practice Session
Following are some examples of methods that can be used to practice healthcare delivery skills in both simulated and real environments for the key skill areas of communication, clinical care, critical thinking, and management.

Role plays. Role plays are useful for practicing communication skills and exploring underlying values and attitudes of both learners and patients.

Simulations. Depending on the skill to be practiced, clinical simulations can involve real people, anatomic models, or computer programs. Models do not have to be sophisticated. For example, an orange could be used for learners to practice giving injections.

Video, photograph, or computer exercises. These exercises can be used to practice identifying clinical symptoms and signs, or to present problems related to communication or management.
Case studies. Case studies can be individual or group exercises. They can be used to practice critical thinking or clinical decision-making skills, or to present and solve problems related to the management of health services.

Work with real patients. Low-risk skills such as taking a history, or skills that learners have practiced and in which they feel confident, can be done with real patients so that learners can experience how their skills apply to real-life situations.

During the practice and feedback session, the facilitator or faculty acts as a coach, and facilitates two-way communication between themselves and the learners. This two-way communication involves the use of feedback, active listening, questioning, and problem-solving skills.

Faculty as Coaches
As a facilitator, coaching skill development includes provision of specific and useful feedback, and application of key communication skills. Here are some tips for these essential skills.

Practice does not make perfect unless it is combined with feedback. Feedback is information given to learners about the quality of their performance. To be effective as reinforcement, feedback must be specific, constructive, and nonjudgmental.

Use positive feedback to tell learners what they are doing well. Positive feedback gives learners a clear idea of which correct behaviors they were demonstrating, so that they can repeat those behaviors. Use constructive feedback to tell learners how to improve their performance. Constructive feedback must make clear to learners how they can correct their inappropriate or incorrect behaviors. Many facilitators find it difficult to give constructive feedback, but it is essential in helping learners to improve.

Observing learners as they practice and providing feedback encourages them to learn in a way that maintains and enhances their confidence and self-esteem. Providing feedback in the classroom or simulated environment is much easier than providing feedback during practice sessions in a real environment. Although the following guidelines for giving and receiving feedback may be helpful, you will need practice to become more confident in this essential skill.

Listed below are some guidelines for giving feedback.

• **Be timely.** Give your feedback soon after the observation. For most feedback, it is best to wait until after learners have finished practicing an entire skill or procedure before giving feedback. Feedback given during practice should be limited to critical information necessary to avoid a negative outcome (e.g., “Khaled, I suggest that you refer to the learning guide for the type of needle you should use for this injection.”).

• **Avoid embarrassment.** Pointing out a learner’s errors in front of others will only serve to embarrass the learner and create a negative learning environment. Emphasize positive feedback during a session. Constructive feedback should be given in the form of “what you can do differently next time,” rather than what you did wrong this time.

• **Be specific.** When feedback is specific, learners learn exactly what they did that was effective and what they should do differently next time. Describe specific behaviors and reactions, particularly those that the learner should continue and those that should be changed.

**Example: Specific Feedback**
“I was pleased to see that you asked each mother with a child older than 6 months what foods she was using to complement breastfeeding.”

• **Focus on behaviors, not individuals.** Describe the consequences of the behavior; do not judge the person.
Example: Nonjudgmental Feedback

“When you inserted the speculum, you did not tell the patient what to expect. I saw her wince and tense up, making it difficult for you to open the speculum and painful for the patient. If you tell the patient what you plan to do ahead of time, it will help her relax and make the experience more pleasant for everyone.”

- **Be encouraging.** End your feedback with words of encouragement, reaffirming approval of the performance and the expectation that improvement will continue. An extra “good job!” can be very important for ensuring that the learner maintains the skills over a long period of time.

- **Convey positive feedback** by facial expression and tone of voice rather than words, when appropriate. This type of feedback can be highly effective.

- **Give learners an opportunity to respond** to the feedback, while you actively listen during this response. At a minimum, learners should restate specific behaviors they will perform the next time they practice the skill.

**Active Listening**

Active listening is a communication technique that helps stimulate open and frank exploration of ideas and feelings and establish trust and rapport with learners. It helps clarify learners’ comments and enables the learners to be heard and understood. In active listening, it is important to accept what is being said without making any value judgments, clarify the ideas or feelings being expressed, and reflect those back to the learners.

Listed below are examples of active listening techniques.

- **Stop talking and listen to the learner.**

- **Restate the learner’s exact words.**

- **Paraphrase in your own words what the learner said.**

- **Understand and reflect the learner’s underlying feelings (identify the emotion).**

- **Identify with the learner’s emotions and state the implications of those feelings. (“If I could perform the skill that well, I would be happy.”)**

When you are actively listening, it is appropriate to ask non-leading questions such as, “Can you tell me more about that?” or “Help me understand what you said.” It is also appropriate to ask for help as a part of active listening; for example, “I’m not sure I fully understand what you are saying,” or “I’m confused as to whether you mean the doctor or the nurse. Can you explain more?”

Active listening does not include probing questions of a cross-examination type such as “Why did you do that?” or “What are you going to do about that?” Active listeners are not accusatory, nor do they ask questions that lead to only one answer. Active listening reflects what has been said and draws the learner out to expand further on the meaning or feelings.

**Questioning**

Questioning is used to assess learners’ knowledge and to develop their critical thinking and problem-solving skills. Facilitators can use many different techniques for questions depending on the context of the learning. Questions shift the learning from the facilitator to the learner.

- **Closed questions** that have a small range of answers (often yes or no), and should be used sparingly.

- **Open questions** allow a wide range of responses, and permit learners to describe in their own words the answer to the problem or question.
• **Critical thinking** questions help learners think through their rationale and what they should do. For example:
  - What’s the first thing you think you should do?
  - How can you find out if that treatment is appropriate?
  - Based on this information, what action should you take next? Why?

Questioning provides excellent opportunities for learners to practice problem solving and decision-making and receive immediate feedback. Questioning does **not** mean interrogating. Tell learners that the purpose of questioning is to help guide instruction and develop critical thinking skills during skills practice, not to berate or belittle them. Emphasize that learners should always come to the practice session expecting discussion and questions about the topic.

**After: Summarize the Practice Session**

Conduct a feedback session immediately after practice. First, ask learners how they felt about their own performance. Begin by asking them what they believed they did well and what they would like to improve, or what they would do differently next time. Refer to a competency-based learning tool, if one is available, for a quick review of the steps, and ask learners where they experienced difficulty. Then discuss the strengths of their performance and offer specific suggestions for improvement. Determine if they need additional practice and, if so, arrange for additional independent or facilitated practice sessions.

**Summary**

In this module, we learned that helping learners develop skills is a process of:

- Introducing and demonstrating skills;
- Providing opportunities for practice and feedback in simulated (e.g., classroom, skills development lab) and real environments (e.g., clinic, hospital, laboratory); and
- Providing feedback and coaching.

This process can be applied for all types of healthcare delivery skills—whether in communication, clinical care, critical thinking, or management. The process not only builds learners’ competence and confidence, but also helps learners develop and integrate knowledge, morals, values, and ethics into their provision of health services.
### Coaching Checklist

Place an “S” in case box if task/activity 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 learner during evaluation by trainer

*(To be completed by the observer)*

<table>
<thead>
<tr>
<th>Participant:</th>
<th>Date Observed:</th>
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<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Step/Task</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Practice Session</td>
<td></td>
</tr>
<tr>
<td>Greet participant.</td>
<td></td>
</tr>
<tr>
<td>Review the last session and identify goals for this session.</td>
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</tr>
<tr>
<td>During Practice Session</td>
<td></td>
</tr>
<tr>
<td>Observe the participant as s/he practices the procedure.</td>
<td></td>
</tr>
<tr>
<td>Provide positive reinforcement and suggestions for improvement as the participant practices the procedure.</td>
<td></td>
</tr>
<tr>
<td>Refer to the checklist during observation.</td>
<td></td>
</tr>
<tr>
<td>Record notes about participant performance on the checklist during the observation.</td>
<td></td>
</tr>
<tr>
<td>Is sensitive to the “client” when providing feedback to the participant during a clinical session with “clients.”</td>
<td></td>
</tr>
<tr>
<td>Provide corrective comments only when the comfort or safety of the client is in doubt.</td>
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<tr>
<td>After Practice Feedback Session</td>
<td></td>
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<tr>
<td>Ask the participant to identify those steps performed well.</td>
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</table>
### Checklist For Clinical Coaching Skills

<table>
<thead>
<tr>
<th>Step/Task</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask the participant to identify those steps where performance could be improved.</td>
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<tr>
<td>Refer to steps on the checklist.</td>
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</tr>
<tr>
<td>Provide positive reinforcement regarding those steps or tasks the participant performed well.</td>
<td></td>
</tr>
<tr>
<td>Offer specific suggestions for improvement.</td>
<td></td>
</tr>
<tr>
<td>Work with the participant to establish goals for the next practice session. Refer to areas for improvement on the checklist.</td>
<td></td>
</tr>
<tr>
<td>Record the coaching practice on the tally sheet (sample on the following page) along with if they are ready to move to clinical practice or not.</td>
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</table>
Module CP02

Module CP02: Facilitating Practice in Simulation

Using Clinical Simulations

Introduction

A clinical simulation presents the learner with a carefully planned, simulated patient management situation. Clinical simulations are an excellent method for developing clinical decision-making skills and can take a variety of forms. During the simulation, learners interact with persons and things in the environment, apply previously/newly acquired knowledge and skills in responding to a problem, and then receive feedback about those responses without having to be concerned about real-life consequences.

Clinical simulations are often conducted with a small group of learners—one learner may be the primary responder while other learners provide feedback, or all learners in the group may be involved in the exercise.

Note: Before any clinical simulation, set up the area as realistically as possible. Ensure that anatomic models, equipment, supplies, or other props that will be needed are in place.

Types of Clinical Simulations

There are several types of clinical simulations.

- **Live simulated-patient scenarios** involve the use of persons trained to act the role of the patient. They are given a very specific script to follow while interacting with the learner. The interaction may be recorded using video or observed so that feedback can be provided to the learner.

- **Mediated simulations** use audio or visual media to present the problem, represent an interpersonal situation, or help in the analysis of a problem or situation. For example, a video of people interacting may be shown, or audio of heart sounds may be played, to provide information for the learner to use in the simulation.

- **Simulations using anatomic models** (physical simulators) that closely resemble the human body (or parts of it) are often used for developing psychomotor skills. A physical simulator may be used along with a role play in a clinical simulation that requires learners also to demonstrate technical skills.

Developing a Clinical Simulation

Listed below are the general steps to help you develop a clinical simulation.

- Identify the purpose of the clinical simulation activity. Is the objective to develop clinical decision making skills? Is the objective to practice for an emergency? Write the purpose at the top of the clinical simulation form.

- Identify the resources the students will need to conduct the simulation.

- Create the scenario in parts including the information provided and the questions to be asked by the teacher.

- For each part of the scenario, indicate the key reactions and correct responses expected from the student.

- Conclude with any key points to be discussed following the simulation.

As you develop the simulation, think about how you will facilitate the simulation. Will the simulation involve a small group of students using a model or will you demonstrate this for all the students? Will the simulation take place in the classroom, the skills development lab, or the clinic?
Clinical Simulation Effectiveness

Critical to the effectiveness of using a simulation are debriefing and feedback.

Debriefing

Debriefing is identified as one of the most important educational components of simulation as it allows learners to clarify and consolidate learning by methodically reviewing performance in a simulation. Debriefing is defined as a type of formative feedback where instructors guide students in reflecting and analyzing aspects of their clinical or professional performance including gaps in knowledge and skills, and underlying attitudes and emotional states, to improve future performance. Importantly, instructors both facilitate students’ identification of, or provide insight on performance gaps (the difference between the desired performance and actual or observed performance) after the simulation. Directive feedback informs students about what needs to be corrected while facilitative feedback is the provision of comments to facilitate the students own revision of that mistake.

Feedback

Feedback occurs both during and after the simulation. Feedback during simulation includes cues to help guide the student and respond to what the student is doing. Feedback after the simulation is commonly referred to as “debriefing.” Feedback on students’ current performance is a crucial aspect of a structured “debrief” where skilled facilitators provide direct, respectful feedback to help students explore the underlying cause of the performance, be it good performance or a performance gap.
Module CP03: Managing Clinical Practice

Handout 1: Roles and Responsibilities in Managing Clinical Practice or Practicums*

The tutors or clinical instructors and students from a health professions school, along with the preceptors or lab practicum supervisors from the clinical site, all have important roles in ensuring that students benefit from the practical rotations. Figure 1 below illustrates the relationship within the “triad” responsible for educating the student: school, tutor or clinical instructor, and preceptor. The base of the triad is the clinical site, where students will put the theory they learned in the classroom into practice with clients, under supervision.

Figure 1. The Triad

Developed by Beatrice Williams, NMTC Kumasi. Adapted with permission.

School Responsibilities

The health professions institutions are responsible for preparing for their students’ practical experiences. They should complete the following tasks:

- Formally request the use of the clinical site and provide an orientation about the preceptors or lab practicum supervisors hip to the clinical site administrators, supervisors, and staff, this is usually done via a memorandum of understanding or other formal document.

- Make a request in writing for the use of the site and the involvement of staff for a student clinical experience. The request should include the total number of students, the students’ names, the dates of the clinical rotation, and any information about the students that would be helpful to administrators and staff.

* This handout adapted from: Reference Manual for Preceptorship in Midwifery Education, American College of Nurse-Midwives, 2013.
• Seek participation in an initial orientation session for the facility administrator, matrons, department in-charges in the departments where students will work, and preceptors or lab practicum supervisors. The orientation should include information about the objectives of the practical rotation, use of anatomical models and job aids for practice, and materials used to assess student progress (e.g., checklists).

• Since tutors and/or clinical instructors will also plan follow-up visits and phone calls to the site during the student rotation to monitor the progress of the students, they should be asked to provide approximate dates for these follow-up visits and phone calls to help both the school and the preceptor in planning.

• Assess the clinical site and provide site strengthening where critical gaps are uncovered.

• Request permission to assess the clinical site to gather information about the client caseload, potential preceptors or lab practicum supervisors who are available at the clinical site, and the number of other students who will use the facility at the same time. Tutors can then use this information to decide how many students will go to each clinical site and the types of experiences they will have.

• The clinical site assessment will also provide information about the quality of care at the facility. It should include assessment of practices compared to national standards and guidelines. The assessment results should be discussed with the facility administrator and chiefs of services so that an action plan can be formulated to address major gaps.

• Organize a knowledge and skills update for preceptors or lab practicum supervisors to ensure knowledge of evidence-based practices, and provide ongoing clinical updates as needed.

• Schools are responsible for ensuring that preceptors or lab practicum supervisors’ knowledge and skills are evidence-based and reflect what is taught in the curriculum. “Standardizing” preceptors or lab practicum supervisors using the same tools and checklists that are used in the school’s skills labs will ensure consistency.

• If necessary, schools can provide updates for preceptors or lab practicum supervisors on the principles of adult learning and humanistic approaches to care. Preceptors or lab practicum supervisors who are able to conduct effective skills demonstrations and coaching as well as lead case studies and role plays will be highly valuable in students’ education.†

• Provide preceptors or lab practicum supervisors with course objectives, outlines of didactic material, reference manuals, and other relevant materials. Schools should also prepare a preceptor information pack at the beginning of each semester containing relevant materials such as:
  • Checklists for coaching, demonstrations,
  • Objectives specifically developed for the students’ clinical experience, and
  • Preceptor and student evaluation forms.

• Work with the facility and preceptors or lab practicum supervisors to establish a rotation schedule that will ensure sufficient practice opportunities with minimal impact on the functioning of the various clinical services. Transport of students to their clinical sites will need to be arranged.

• Provide facilities with additional supplies and consumables for students. Send supplies and consumables such as gloves, cotton wool, and gauze to facilities that do not have enough. Facilities might appreciate a school’s willingness to send more of these supplies for the students’ use.

• Ensure that students have practiced all basic skills, including communication and counselling, and have demonstrated competence in simulation before performing skills on clients.

• Conduct a clinical experience orientation meeting with students before they go to their clinical rotation sites. During this meeting, the school can review and discuss with the students their responsibilities, the clinical practice objectives and schedules, the assigned clinical site, how their progress will be monitored and assessed and the names of their preceptor(s). Once at the clinical site, the preceptor will provide an orientation to the facility.

• Conduct the final evaluation of students at the end of the program, with input from preceptors or lab practicum supervisors, based on the objectives established prior to the preceptors or lab practicum supervisorship.

• Evaluate each clinical site on a regular basis to determine whether the site continues to fulfill the requirements for the clinical education of students. A site with deficiencies may not receive more students until issues are resolved.

**Clinical Site Responsibilities**

Just as the educational program will contact the clinical site administration in writing about its own role in ensuring a high quality practical rotation, the facility/clinical site administration will agree in writing to undergo site assessment and strengthening, and to participate as a training site for students from the educational program. The experience can be made even more positive for students if the facility administration agrees to do the following:

• Provide a preceptor or lab practicum supervisor on each shift with students.

• Maintain the standards of evidence-based clinical care that were taught during site-strengthening activities.

• Collaborate with schools to identify potential preceptors or lab practicum supervisors and allow preceptors or lab practicum supervisors to attend knowledge and skills updates as well as regular meetings with tutors.

• Maintain trained preceptors or lab practicum supervisors in relevant clinical areas to preserve continuity for students.

• Collaborate with the school to develop incentive and recognition programs for preceptors or lab practicum supervisors.

• Participate in ongoing communication between the school, the preceptor, and the student.

• Provide equipment and consumables, if possible.

• Ensure safety of students and put in place mechanisms to prevent and protect students from sexual harassment. Encourage all staff to create a friendly learning environment.

**Tutor or Clinical Instructor Responsibilities**

Some schools have clinical instructors who play a dedicated role in supervising and managing practical rotations, other schools require this from tutors for the classes they teach. Whoever plays this role, they should perform the following responsibilities:

• Identify appropriate preceptors or lab practicum supervisors.

• Determine the need to update preceptors or lab practicum supervisors in requisite knowledge and skills as well as key training and mentoring skills, and assist in providing those updates.

• Assign students (in groups or as individuals) to a preceptor and develop a rotation schedule.

• Discuss and resolve problems with a preceptor or clinical site, pulling in administration when needed.

• Share contact information with the clinical site, preceptor, and students.
• Develop and communicate learning objectives for each clinical rotation and share the objectives with
the preceptor.
• Ensure that tools such as checklists, case studies, role plays, job aids, and student evaluation
templates are up-to-date and shared with preceptors or lab practicum supervisors.
• With the preceptor or lab practicum supervisor, determine the number of students the facility can
take while still ensuring adequate, constructive clinical experiences.
• With the preceptor or lab practicum supervisor and clinical site, arrange appropriate student
accommodations, if needed.
• Orient students to the objectives and activities of the practical rotation.
• Orient the preceptor or lab practicum supervisor to the students, learning objectives, assessment
tools, schedules, and any special requests or assignments.
• During regular site visits, monitor the students’ clinical experience and practice sessions using
checklists, and perform or observe pre-clinical and post-clinical meetings.
• Develop a schedule to routinely communicate with preceptors or lab practicum supervisors (by phone
and visits) during the clinical rotation to monitor student progress and identify any problems that arise.
• Collect feedback on student performance from preceptors or lab practicum supervisors.
• Collect feedback on the appropriateness of the site for continued student training and share with
preceptors or lab practicum supervisors and other tutors.
• Manage conflicts or other difficulties that develop between students and the preceptor, staff, and/or
other students.

Preceptor or Lab Practicum Supervisor Responsibilities

The preceptor or lab practicum supervisor will read and understand all roles and responsibilities before
signing a letter of agreement.

Before students arrive for their clinical experience, preceptors or lab practicum supervisors and the tutors
in charge should check the student accommodations (where applicable) for the following:
• Cleanliness, access to ventilation, and lock and key for the door
• Availability of water and clean toilet facilities
• Clean and comfortable bed and bedding
• Chair and desk or table and light source
• Easy access to clinical site

Ideally, the preceptor or lab practicum supervisor should meet students as they arrive, show them their
accommodations, explain where they can get food, give them information on whom to contact if there
are any problems, and give them details on the time and location of the clinical site orientation meeting.

At the clinical site the preceptor or lab practicum supervisor should complete the following preparations:
• Prepare the space where teaching aids and models are kept and ensure that equipment and sufficient
supplies and commodities are available for students to use during their clinical practice.
• Track all support provided by the school (e.g., additional supplies for student use). If necessary, the
preceptor should make arrangements to procure additional equipment and supplies.
Module CP03

- Identify and report any obstacles to student learning at the clinical site and use the clinical site standards to advocate for improvements in practice.

- Plan the clinical schedule and activities (based on the school’s and students’ objectives) and prepare the student duty roster, if applicable.

The preceptor or lab practicum supervisors’ other general responsibilities include the following:

- Sharing contact information with the tutor and students

- Understanding where the students are in the curriculum and the strengths and needs of each student as s/he arrives for the clinical rotation

- Communicating regularly with the tutor coordinator about the students’ performance, progress, and issues

- Managing conflicts between students and the preceptor, staff, and/or other students

- Conducting student evaluations, reporting periodically and at the end of the clinical rotation using approved templates, and sharing the results with the relevant faculty or clinical instructor.
### Table 1. Challenges to an Effective Preceptor or Lab Practicum Supervisor Ship Program

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Effect on Learners</th>
<th>Possible Solutions</th>
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</table>
| Learners practice with little or no supervision in the facility | - Learners not able to discuss or clarify learning objectives  
- Learners not continually assessed and do not receive feedback  
- Learners not able to discuss the problem-solving process (i.e., history, physical examination, diagnosis, plan of care), which limits development of clinical decision-making skills  
- No consistent role model  
- Lack of support for client’s rights  
- Cannot guarantee safety of client care | - Assign a trained preceptor or lab practicum supervisor who is available at all times during learner practice |
| Learners are supervised by a staff member on duty, who may not be a trained as a preceptor or lab practicum supervisor | - Poor monitoring of learner’s ongoing progress in knowledge, skills, and attitudes  
- Staff might not have standardized practices  
- Staff generally have no formal training as clinical preceptor or lab practicum supervisor | - Identify a trained preceptor or lab practicum supervisor to work with learners throughout the rotation |
| Practices at clinical site do not reflect practices that are taught in the classroom | - Learners not able to practice and apply evidence-based knowledge and skills  
- Learners expected to perform outdated practices | - Carry out targeted site strengthening so that current evidence-based practices are used by staff and preceptor or lab practicum supervisor  
- Ensure presence of trained preceptor or lab practicum supervisor to facilitate practice  
- Increase communication between preceptor or lab practicum supervisor and school |
| Learners do not have an opportunity to practice some skills on clients | - Learners not able to achieve competence in some skills  
- No or limited teaching models at clinical sites | - Support learners in performing clinical skills at the clinical sites  
- Make homemade teaching models  
- Demonstrate competence in simulation setting before and after clinical rotation (particularly important for clinical skills that are not common and may not be seen during a rotation)  
- Expand the number and variety of facilities that can take learners |

‡ This handout adapted from: Reference Manual for Preceptorship in Midwifery Education, by American College of Nurse-Midwives, 2013.
<table>
<thead>
<tr>
<th>Challenge</th>
<th>Effect on Learners</th>
<th>Possible Solutions</th>
</tr>
</thead>
</table>
| Preceptor or lab practicum supervisor does not have formal training to ensure clinical education of learners | • Preceptor or lab practicum supervisor does not have the needed knowledge and skills  
• Preceptor or lab practicum supervisor is not able to assist learners in mastering skills in the clinical area | • Provide a training program for preceptor or lab practicum supervisor specifically focused on needed knowledge, teaching and coaching skills, responsibilities, and documentation |
| Very low client load at clinical facility              | • Learners don’t have the clinical experiences they need to master skills           | • Send fewer learners  
• Delay sending learners until the caseload is adequate  
• Expand the number and variety of facilities that can take learners |
| Clinical facility is used by many other educational programs | • Not enough preceptor or lab practicum supervisors for learners  
• Learners not able to get enough clinical experience | • Do not send learners, or send fewer learners  
• Expand the number and variety of facilities that can take learners  
• Work with site and other programs to develop a rotation schedule for learners that decreases congestion in the facility |
| Clinical facility has no teaching models or equipment   | • Learners not able to practice skills on models when the clinical area is not busy  
• Learners have limited learning in some areas | • Develop locally made models  
• Search for resources for the school and facility |
| Limited support from the school during learner’s clinical rotation | • Preceptor or lab practicum supervisor feels frustrated and not supported  
• Learner, clinical, or administrative issues that arise may not be fully addressed | • Clearly identify school’s responsibilities when establishing preceptor or lab practicum supervisor system |
Handout 3: Follow Up Support and Monitoring

Follow-up support and monitoring is a vital component of managing clinical practice because it enhances communication among the members (the school, the preceptor or lab practicum supervisors, and the clinical site administration), helps identify issues that need to be addressed, provides support to preceptors or lab practicum supervisors and students, involves the clinical site administration as an active partner in the process of ensuring a quality practical experience.

Communication between the preceptor or lab practicum supervisor and the designated tutor or clinical instructor during the clinical site rotation is critical to ensure smooth functioning of the clinical or practical rotation and to support those involved as issues arise. Communication and support can be carried out through regular phone calls and.

Each school needs to develop its own schedule for support and monitoring, which will depend on the length of the clinical rotation; the distance to the clinical site; the needs and schedules of the preceptor or lab practicum supervisors, student, and tutor; the availability of transportation; and the need to address issues as they arise. The timing of follow-up visits can be planned during the initial site assessment visit. An example schedule for a six-week student clinical rotation is provided below. If a serious issue arises, special calls and/or visits should be scheduled. This schedule enables the school and the clinical site to have close contact through visits both before and after the clinical rotation is halfway completed. Between clinical site visits, the tutor or preceptor can initiate telephone calls for quick check-ins and to assess whether students need any additional support. See Table 1 for an example of a communication schedule.

Table 1. Sample Communication Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Communication by School</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Site visit</td>
</tr>
<tr>
<td>3</td>
<td>Call to preceptor and student(s)</td>
</tr>
<tr>
<td>4</td>
<td>Site visit</td>
</tr>
<tr>
<td>5</td>
<td>Call to preceptor and student(s)</td>
</tr>
<tr>
<td>6</td>
<td>Review Preceptor Evaluation and Student Evaluation forms</td>
</tr>
</tbody>
</table>

Clinical Site Visits

Clinical site visits can be used to gather information about how a student’s clinical rotation is going and to provide an opportunity for everyone who is involved in the clinical site rotation—preceptor or lab practicum supervisor, student, clinical site administration, and tutor or clinical instructor—to inform each other of accomplishments, areas of concern, and solutions to problems. These visits also offer an excellent opportunity for preceptors or lab practicum supervisors to receive support from the tutor. The steps recommended for follow up visits to sites are included below.

1 This handout adapted from: Reference Manual for Preceptorship in Midwifery Education, by American College of Nurse-Midwives, 2013.
Follow-Up Clinical Site Visits

**Step 1.** Preceptor or lab practicum supervisor and tutor meet to discuss:
- General update
- Any challenges that may need administrative interventions
- Preceptor needs
- Plan for day

**Step 2.** Preceptor or lab practicum supervisor and tutor meet with administration to discuss:
- Purpose of visit
- Visit schedule
- A time for debriefing at end of day

**Step 3.** Preceptor or lab practicum supervisor and tutor work together in the clinical area:
- Preclinical meeting
- Activities in the clinical area
- Post-clinical meeting

**Step 4.** Preceptor or lab practicum supervisor and tutor meet to discuss:
- General update on student performance
- Student problems, what has been done to solve the problems, and any support needed from the school
- Staff or administration problems, what has been done to solve the problems, and any support needed from the school
- Commodity needs
- Student accommodations
- Self-evaluation by preceptor using the Preceptor Evaluation form as a guide
- Preceptor needs and ways to meet those needs
- Any concerns

**Step 5.** Tutor meets with students to discuss:
- Student performance, number of skills completed, competence, strengths, and areas of need (use a Student Evaluation form to guide discussion)
- Whether students’ objectives have been met, and plans to meet the objectives
- Students’ feedback on preceptor (use a Preceptor Evaluation form to guide discussion)
- Staff or administration problems, student accommodations or any other concerns

**Step 6.** Preceptor or lab practicum supervisor and tutor discuss meeting with students and develop recommendations

**Step 7.** Preceptor or lab practicum supervisor and tutor meet with students to discuss issues and recommendations

**Step 8.** Preceptor or lab practicum supervisor and tutor debrief with administration

Providing support for the preceptor or lab practicum supervisor’s skills is an important aspect of the clinical site visit. When the preceptor or lab practicum supervisor and tutor are working with students in the clinical area (Step 3), the preceptor or lab practicum supervisor can use the Preceptor Evaluation form as a guide for self-evaluation. During the later meeting with the tutor (Step 4), the preceptor and tutor can review and discuss the checklist. The preceptor or lab practicum supervisor always reviews his or her own performance first, and then the tutor contributes anything that the preceptor did not discuss. Responsibilities such as establishing a healthy learning environment, conducting a pre-clinical meeting, coaching students, supporting students in the clinical area, conducting demonstrations, and conducting a post-clinical meeting require complex skills that can be improved through evaluation and feedback.

A meeting between the students and the tutor (Step 5) gives students a chance to discuss their clinical rotation. If a student has a special problem, it may be more appropriate for the tutor to speak privately with the student. Although typically the students and tutor meet without the preceptor or lab practicum supervisor, the tutor should always share information that is not confidential with the preceptor or lab practicum supervisor. In Step 6 of the follow-up visit, the preceptor or lab practicum supervisor and tutor meet to discuss information shared by the students and develop recommendations resulting from the visit. Together, the preceptor or lab practicum supervisor and tutor decide the agenda for the next meeting with students (Step 7).

Finally, they meet once again with the clinical site administration to provide information about the day’s findings and the specific recommendations they developed (Step 8).
A Summary of Follow-Up Visit Form is provided below. The tutor is responsible for completing this form based on the discussions with the preceptor or lab practicum supervisor, students, and administration. This form is completed in duplicate, with one copy for the preceptor’s file and one copy for the school.

**Follow-Up Phone Calls**

Follow-up phone calls offer opportunities for less formal reviews of the areas included in the Summary of Follow-Up Clinical Site Visit Form. These phone calls are generally initiated by the tutor, but preceptors and students may also make them. Examples of points that can be discussed during follow-up phone calls include the following:

- Pre- and post-clinical meetings
- Types and numbers of clinical experiences and whether or not they are meeting the students’ needs
- Possible solutions, if the clinical experiences are not meeting the students’ needs
- Concerns about students
- Concerns brought up by students (regarding the site, the preceptor, or administrative/logistic issues such as accommodations)
- Any general concerns (e.g., site administration, commodities)
- Date and time for next clinical site visit or phone call
# Summary of Follow-up Clinical Site Visit Form

**Note:** This form is to be filled out by the tutor in duplicate at the end of the follow-up clinical site visit. One copy is for the preceptor’s records and one copy is for the school.

<table>
<thead>
<tr>
<th>Date:</th>
<th>Site Visited:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Tutor (Evaluator):</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Names of Preceptors (all):</th>
<th>Names of Students (all):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### For questions 1–3, please fill in the line before the statement using the following responses:

- **A** = Excellent
- **B** = Satisfactory
- **C** = Needs Improvement
- **NA** = Not Applicable

1. **Pre-Clinical Meeting**
   - __Ask if there are questions about the previous day__
   - __Discuss day’s objectives__
   - __Assign task/clients to students__
   - __Agree on communication methods to use when student is giving care__
   - __Ask students to present on a client during the post-clinical meeting__

2. **Activities on the Unit** (how preceptors and students are working together)
   - __Coaching__
   - __Demonstration__
   - __Support (use of positive reinforcement and good communication skills)__
   - __Feedback__

3. **Post-Clinical Meeting**
   - __Facilitate student presentation of cases__
   - __Feedback on clinical skills__
   - __Discuss students’ questions__
   - __Practice on models__
   - __Review and discuss group assignments__
   - __Give group assignments__
   - __Support students (use of positive reinforcement and good communication skills)__

---

**Module CP03**

Faculty Development Program: Reference Manual
### 1. Meeting with Preceptor

<table>
<thead>
<tr>
<th>Student Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Name</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
</tr>
</tbody>
</table>

- a. Any concerns with staff or administration?
- b. Are there enough commodities to cover the period students will be in the facility?
- c. Any other concerns?
<table>
<thead>
<tr>
<th>Student Name</th>
<th>Skill</th>
<th>No. Skills Performed</th>
<th>Competent</th>
<th>Areas of Need</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>On Model</td>
<td>On Client</td>
<td>Yes/No</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<td></td>
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<tr>
<td>3.</td>
<td></td>
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<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Name</td>
<td>Skill</td>
<td>No. Skills Performed</td>
<td>Competent</td>
<td>Areas of Need</td>
<td>Comments</td>
</tr>
<tr>
<td>--------------</td>
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<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**1. Meeting with Students**

- a. Objectives for clinical rotation that have been met, or plans to meet the objectives:
- b. Feedback on preceptor:
- c. Any problems with staff or administration?
- d. Are student accommodations sufficient?
- e. Any other concerns?

**4. Recommendations from visit:**

**5. Agreements (e.g., changes to be made at clinical site, support needed from school, ways to better support preceptor, ways to address a student issue):**

**Date of next visit:**
Pre-Clinical Meetings

The preceptor, clinical instructor or lab practicum supervisor should begin each clinical day with a 15- to 30-minute pre-clinical meeting in a location away from client care areas. During the meeting, this individual will:

1. Welcome the learners;
2. Ask learners if they have questions about the knowledge and skills reviewed the previous day;
3. Discuss the learning objectives and special assignments for the day;
4. Assign tasks and clients to each learner (this may also be done in the clinic);
5. Reassure learners that the role of the preceptor is to help and ensure the safety of clients and learners;
6. Come to an agreement with the learners on the communication method to be used during coaching when the learner is giving care to a client;
7. Assign learner(s) to present on one of their clients during the post-clinical meeting;
8. Remind learners to take their learning guides to the clinical area; and
9. Respond to any questions.

The daily learning objectives should be based on the topics and skills that are to be covered that day.

Post-Clinical Meetings

Post-clinical meetings are often rated as one of the most valuable components of clinical training.†† The post-clinical meeting is a combination of debriefing, learning, and planning. It is an opportunity for learners to share experiences from the day and to openly discuss in a supportive, nurturing environment any difficult experiences they have encountered in the clinic. The meeting also offers an opportunity for the preceptor, lab practicum supervisor or clinical instructor to praise learners for good performance and to identify aspects of their performance that can be improved. If a post-clinical meeting has been effective, learners should leave it feeling respected and reinforced in their efforts to learn. If possible and appropriate, other staff at the clinical site can be invited to participate in the meeting.

You will need approximately 45–60 minutes for the post-clinical meeting and should plan to conduct the meeting in an area that is removed from client care areas.

The preceptor’s responsibilities during the meeting include the following:

- Asking learners to present interesting or difficult cases, or an assigned case, using the clinical decision-making process (i.e., history, physical examination, problems and needs, plan of care)
- Giving feedback on clinical skills performed by learners, using the evaluation/feedback process:
  - Asks learners to share how they felt about the experience
  - Praises satisfactory points and discuss questions
  - Offers suggestions for areas needing improvement

†† This handout adapted from: Reference Manual for Preceptorship in Midwifery Education, by American College of Nurse-Midwives, 2013.
- Asks learners to complete any required documentation
- Responding to questions about specific situations or clients
- Conducting additional practice with models or simulations, if needed
- Reviewing and discuss any group assignments
- Planning for the next clinical session and notifying learners of any changes, if needed

**Post-Clinical Meeting Case Study Presentations**

Case study presentations give learners the opportunity to share experiences they have had in the clinic, to demonstrate what they have learned, and to problem-solve as a group. The preceptor, lab practicum supervisor or clinical instructor invites a learner to present and listens carefully during the presentation, taking notes for later comment. After the learner presents the case study, other learners can comment and the preceptor, lab practicum supervisor or clinical instructor reviews any points that were not brought up by the learners (e.g., areas of the history that were overlooked or aspects of the physical examination that were performed correctly or incorrectly). The preceptor or lab practicum supervisor also ensures that the problems/needs and plan of care identified for the case study client are correct and complete. The preceptor asks learners “why” questions and/or questions about areas of the case study that are not clear or cause confusion.

In addition, the preceptor makes sure the presenting learner:

1. Reviews the case systematically (history first, physical exam second, and so on),
2. Confirms all problems/needs, and
3. Prepares a separate plan of care for each problem or need.
Blueprinting an Exam

Test Blueprints
A blueprint is an organized written plan for testing, and is a recipe for an effective assessment. The following provides an overview of the blueprint creation process.

Creating the Blueprint
Creating a blueprint begins with consideration of what is being tested. This can be very narrow, as in the case of a teacher developing a weekly quiz, or very broad, as in the case of a nursing council developing an entry to practice examination for licensure. There is no universal standard for what should be on a blueprint. Builders using blueprints to plan housing, industrial, or commercial spaces place different emphasis based on purpose. For example, a housing blueprint may feature comfort and aesthetics where an industrial blueprint will likely focus on strength and durability. An assessment blueprint is also guided by purpose. A classroom blueprint may emphasize attention that each objective received in the curriculum while a licensing exam blueprint would likely focus on competencies required upon entry to practice. Regardless of the scope of the assessment, following a few simple steps will result in a high quality and very useful blueprint. Please refer to the Exam Blueprint Template and a completed example at the end of the following instructions.

Step I—Assemble All Important Documents Logically Related to the Test
In the case of the teacher developing a quiz, this may be limited to the course syllabus and lesson plans. In the case of a nursing licensing exam, the documents may be extensive, including but not limited to the national curriculum, standards of practice, competencies and essential package of health services.

Step II—Review Documents While Asking the Following Questions:

- What are the competencies that need to be tested?
- How important are these competencies in relationship to one another? Consider rank ordering the identified competencies from MOST to LEAST important.
- To what degree can competencies be measured on a test? Some competencies with a strong psychomotor (hand) skills component cannot be assessed using an multiple-choice, true-or-false, or matching question and may require clinical or simulated return demonstration by the learner.
- What type of test question is best? If there is a strong clinical decision making skills component to what you need to test, use multiple-choice questions. If you are testing knowledge of basic facts and principles, consider true-or-false or matching questions because they are easier to produce and can test efficiently across a broad subject matter area.

Step III—Prepare the Blueprint
Avoid the tendency to over-complicate the blueprint. A simple blueprint is easiest to follow and in the end more useful than one with many dimensions. A simple table, like the one presented below will guide this process.
Sample of Completed Blueprint—Classroom Quiz

The following blueprint was built for a 20-question quiz for an antenatal care course testing knowledge of the first trimester care unit. The course is from a midwifery curriculum.

<table>
<thead>
<tr>
<th>Essential Learning Outcome</th>
<th>Knowledge</th>
<th>Skill</th>
<th>Attitude</th>
<th>Item Type</th>
<th>% Emphasis</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Clinical Reasoning Skill</td>
<td>Psychomotor Skill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counseling</td>
<td>X</td>
<td></td>
<td></td>
<td>MCQ</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>Risk screening</td>
<td>X</td>
<td></td>
<td></td>
<td>MCQ</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Physical examination</td>
<td>X</td>
<td></td>
<td></td>
<td>Matching</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>Estimating gestational age</td>
<td></td>
<td>X</td>
<td></td>
<td>MCQ</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td>20</td>
</tr>
</tbody>
</table>

In this illustration, the midwifery teacher is interested in developing a 20-question unit quiz. She starts her blueprint by examining the relevant components of the syllabus. This course was weighted heavily on physical examination (30%) and counseling (40%) leading the teacher to test more heavily in this area. The teacher next considers each of these topics to determine the most appropriate type of question. Client counseling, risk screening, and estimation of gestational age all require significant clinical decision skills and will therefore be tested with MCQs. Physical examination requires psychomotor skills that cannot be tested on a quiz. The teacher decides however that there are basic facts and principles underlying physical assessment that can be covered on the quiz and plans one eight-point matching question to test them.

You can find a template for an exam blueprint on the next page.
## Exam Blueprint Template

<table>
<thead>
<tr>
<th>Essential Learning Outcome</th>
<th>Knowledge</th>
<th>Skill</th>
<th>Attitude</th>
<th>Item Type</th>
<th>% Emphasis</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Outcome 1</td>
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<td></td>
</tr>
<tr>
<td>Outcome 2</td>
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<tr>
<td>Outcome 3</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Outcome 4</td>
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<td></td>
</tr>
</tbody>
</table>
Module AE02: Constructing Assessment Items and Tools

Resource: Guidelines for Checklist Validation

After developing a checklist to assess the skills of service providers, it is important to validate it to be certain that it:

- Adequately assesses the included skills as intended, and
- Is usable by a variety of people in a job category, without having to have excessive training.

Steps for Validating a Checklist

- Distribute the checklist to a sample of skilled service providers who have significant experience and to subject matter experts (SMEs) who are sufficiently skilled in the area that the checklist is intended to assess.
- Ask each service provider to do the following:
  - State whether they routinely perform the task as an essential component of the skill being assessed.
  - Imagine the borderline or “just competent” service provider. Often, we refer to these as “novices.” 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.
- Ask each subject matter expert (SME) to do the following:
  - 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

Calculate the percent of skilled service providers and SMEs who think 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 skilled service providers and SMEs.

Criterion-Referenced Pass Score

- Calculate the average of skilled service providers and SME estimates of novice service providers who would satisfactorily demonstrate each task. For example, if skilled service provider or 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%.
• Compute the average of all the averages for all tasks on the checklist.

• If some of the skills on the checklist are more important than other skills, you can assign a weight to each item on the checklist. This might range from 1 for an important skill, 2 for a more important skill, and 3 for a most important skill.

• You should use these weights when computing the total score so that if a learner demonstrates a satisfactory performance on a very important skill she gets a “3.” If she demonstrates a satisfactory performance on a skill with the lowest level of importance she gets a “1.”

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

**Pilot Checklist and Develop an Acceptable Margin of Error**

• Pilot the checklist with multiple SMEs providing simultaneous measures of student performance. Ensure that all SMEs can observe and hear the 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 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).

**Checklist Validation Template**

Here is a template you can use when you prepare your checklist for validation.

When you assemble your checklist in MS Word, insert the template below under each step. This will give your reviewers a place to put their feedback.

<table>
<thead>
<tr>
<th>a. Skill is an essential component of competency</th>
<th>Yes ☐ No ☐</th>
<th>b. Percentage of novice trained service providers whom you would expect to satisfactorily complete this skill</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. Suggested revisions to statement of skill:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Module AE03: Analyzing Assessment Results

Reading: Analyzing Assessment questions and results: Common Sense & Statistics

You will be able to improve the quality of test questions by:

- Taking simple common sense actions to analyze test questions before they are administered
- Interpreting the performance of test questions after they have been administered using the two most common item analysis statistics difficult and discrimination.
- Interpreting the performance of distractors after questions have been administered

A test is only as good as the questions that it contains. Test questions are difficult to write and often do not perform as well as expected the first time they are administered. Fortunately, there are a few key common sense and simple statistical strategies that can be used to identify questions that perform well or need improvement both before and after they are used.

Common Sense Analysis

Take Your Own Test

Many test questions look perfect to the writer immediately after it has been created. Educators and trainers can identify the majority of problems with test questions themselves by taking the following simple steps.

- Put test questions and the intended answers to those questions away for at least 48 hours after they are written. Immediate review is not a good use of your time. You will not see the problems immediately after working on the test.
- Take your own test without looking at the intended answers. If an educator or trainer cannot answer their own question correctly, there is a problem with the question. You will be surprised how many of your own questions you will not be able to answer.
- Review all questions, spending most time on those that you were unable to answer.

When reviewing your own tests, focus on the guidelines for writing questions provided in Module Two. For example, does the TF question test only one proposition and is it completely true or false? Does the stem in the MCQ clearly state the problem? Does that stem contain all of the information that is needed to solve the problem? Does the stem contain unnecessary information that may confuse the learner? Do the MCQ have plausible distractors? Is only one of the MCQ response options correct? Have you identified the correct or BEST answer as your key?

Repair problems that you have identified, put the test away and review again in another 48 hours.

Ask Colleagues to Review Your Test

Colleagues are often able to identify problems in test questions that are not visible to you. After you have reviewed and made your own corrections, ask colleagues to take your test. Distribute your test as broadly as practical. Colleagues with and without expertise in the subject being tested can give you important perspective on your questions. If subject matter experts (SMEs) cannot answer your questions correctly there is something wrong with the question. Conversely, you should also be concerned if those without expertise can answer the question correctly because you are likely testing something other than the intended topic.
Calculate the average score of both the SMEs and non-SMEs taking the test. A high average score by SMEs is evidence of a valid test. A low average score by non SMEs is also evidence of a valid test. Please consider the following results from a set of 30 test questions measuring antenatal care competencies are administered to a group of tutors from midwifery, anesthesia and general science departments of a university. These findings provide evidence supporting the validity of this test because one would expect expert midwives to perform well on the test, expert anesthetists, who are health providers to do less well and science teachers to perform poorly.

<table>
<thead>
<tr>
<th></th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwife Tutors</td>
<td>95 percent</td>
</tr>
<tr>
<td>Anesthetist Tutors</td>
<td>70 percent</td>
</tr>
<tr>
<td>General Science</td>
<td>40 percent</td>
</tr>
</tbody>
</table>

Finally, as colleagues are in the process of your test question, ask them to comment on their clarity and sources of confusion. Distribute a set of uniform instructions along with the test questions. Use the guidelines for constructing test questions provided in Module Two to guide these instructions. A simple tool developed by Jhpiego to review test questions created for its training programs is provided below as an example of guidance that can be provided to colleagues.

**Statistical Analysis**

Three simple statistics can provide exceptional guidance to educators and trainers interested in improving the test questions that they write. These statistics are often available when computers are used to administer or score tests. Fortunately, these statistics are very simple to calculate and can therefore be used even when tests are administered and scored using pencil and paper.

**Difficulty Index**

The difficulty index is simply a calculation of the percent of test takers who answered a question correctly. A difficulty index can be created for any response type question, i.e. TF, MCQ or Matching.
Consider the difficulty indexes for five questions provided above. All learners have answered question 1 correctly and it has therefore received a difficulty index of 1.00. Questions with a difficulty index of 0.80 or greater are considered easy. Questions 1-3 above are easy according to their difficulty indexes. A question testing content that is important and has therefore been mastered by most learners will also receive an easy difficulty index. Question 4 above has received a difficulty index of 0.70 and is considered of moderate difficulty. Questions with this level of difficulty are highly desirable. Question 5 has a difficulty index of 0.30. Most learners have been unable to answer this question correctly. This is a reflection of a problem with the question or the teaching learning methods used to teach to the content that the question is testing. In general, questions with a difficulty index of less than 0.5 should be revised or eliminated from a test.

**Discrimination Index**

A discrimination index compares top and bottom performers on a test ability to answer a question correctly. A discrimination index can be created for any response type question (i.e., TF, MCQ, or Matching.)

In the example below, the top and bottom 10 learners were compared following administration of a test.

**Formula - Discrimination**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 10</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Bottom 10</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

D = Correct/Total (Top) – Correct/Total (Bottom)
D = 7/10 - 4/10 = 3/10 = 0.3
Desirable Positive Discrimination
In this next example, more bottom ten learners (4) have been able to answer the question correctly than top ten learners (3).

Distractor Analysis

Distractor analysis compares the number of learners selecting each of the response options on an MCQ. Consider the following example presented below.

Question one has a difficulty index of 0.8 because 80 percent of learners selected the correct answer C.

Question two also has a 0.8 difficulty index but the remaining 20 percent of learners selected distractor B. In this question, distractor A is ineffective and should be reviewed for replacement or possible modification. The same situation appears in Question five.

Question three is more difficult (0.7) but also has two effective distractors.

All learners have answered question 4 correctly. This question should be reviewed to see if distractors B and C could be improved to increase its difficulty.

Tip
Four-option MCQs frequently have one distractor that a very small percentage of learners select. Consider using three-option MCQs which are easier to construct and are equally as valid and reliable.
Faculty Development Program

Instructor Lead Training I PowerPoints

Session 1:

Goals of the Faculty Development Program

- Leadership
- Teaching skills
- Gender-sensitive pedagogy

Welcome to your Cohort!

A cohort program is “a group of people banded together or treated as a group” in a degree program or course of study.

Don't Miss the Videos!

facilitating Learning Activities

Always click the play icon to watch the video. They are required videos and demonstrate skills.

How Will your Participation be Assessed?

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<tr>
<td>Successful demonstration of coaching skills</td>
<td>10%</td>
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</tbody>
</table>

Weekly Activities

- Complete the assigned module
- Complete the assigned module exercises
- Optional: Meet with your peers to complete exercises and identify any questions
- Send any questions

For more information, please visit

Facebook.com/MCIPublic  twitter.com/MCIPublic

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Session 2:

Global and National Health Workforce Landscape

Demand vs. Need: Four Scenarios

Proven shortfall of 18 million health workers to achieve and sustain the SDGs

MOH Priorities: Health Workforce

Ebola’s Impact on HRH

More Information

- Working for health and growth report: http://www.who.int/hhr/com-heeg
- Policy briefs: http://www.who.int/hhr/com-heeg/com-heeg-policy_briefs
- The power of health workers YouTube video: https://www.youtube.com/watch?v=1sP0a1Yy01
- The economic power of health workers video: https://www.youtube.com/watch?v=1sP0a1Yy01

Faculty Development Program: Reference Manual
Instructor Lead Training | PowerPoints

MOH Priorities: Health Workforce Limited Number of Midwives and MLTs

Goal and Objective of MCSP/HRH

- **Goal:** The goal of this program is to **strengthen the capability and resilience of Liberia’s frontline health workforce** to address second order impacts from the Ebola crisis and provide safe, quality and respectful services.

- **Overarching Objective:** To enhance the quality of pre-service education available to registered midwives (RMs) and medical laboratory technicians (MLTs) to assist in meeting Liberia’s workforce needs for achieving a more resilient health system.

Implementation Strategy Mirrors GOL Health Workforce Program Theory

Reflection

As faculty, how have you made a difference in your country?

How do you think pre-service education could do an even better job preparing a fit for purpose health workforce?

For more information, please visit [www.mcspprogram.org](http://www.mcspprogram.org)

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facebook.com/MCSPglobal twitter.com/MCSPglobal
Session 3:

The Health of Pre-Service Education: An Integrative Review
Key Findings and Evidence-Based Conceptual Model

Inclusion Process

Pre-Service Conceptual Model

Students
Which of the following was found to contribute to student retention in the academic program?

a) Gender
b) Interest in the profession
c) Life experience

Students
Which of the following was found to contribute to student retention in rural or low-resource settings post-graduation?

a) Targeted recruitment from those communities
b) Prioritizing female gender in selection
c) Team-based education (different professions together)

Prioritize rational and targeted student selection over traditional criteria
Instructor Lead Training I PowerPoints

Teachers/Tutors & Preceptors
The review of the literature identified that the preceptor/clinical mentor role is **LESS** important than having a classroom teacher who is also clinically proficient, true or false?
**False**

*Preceptors do matter*

Infrastructure & Management
Which were identified as ‘essential enhancements’ for infrastructure issues?
- a) Simulation and computer labs
- b) Large classroom size
- c) Student hostel updates

Curriculum
Studies that explored problem-based learning revealed which of the following?
- a) Markedly improved clinical skills and performance
- b) Negative impact on written exam performance
- c) Some positive effects on knowledge acquisition & performance

*Core competency-based*

Formative and summative assessment critical

Clinical Practice Sites
There is evidence to support which of the following:
- a) Robust didactic instruction in simulation
- b) Early exposure and varied clinical practice opportunities
- c) Clinical practice peer-to-peer supervision

Influencing Factors
- Environment
- Policies
- Finances
- HRH shortages
- Regulation
- Other
Influencing Factors

Regulation: Accreditation and Licensure key to sustained quality systems

Accreditation

- Ensures that educational programs produce health professionals who meet minimum standards.
- Ensures that educational programs produce health professionals who meet minimum competency standards.

Licensure/Registration

- Provides independent assurance of competency to health and medical professionals.

Continuing Professional Development

- Periodic revalidation assurance for maintenance of competency.
- Discusses continuing education requirements to maintain competency.

Accreditation Standards

Are you familiar with your country’s educational accreditation standards? What do they expect in the classroom? In the clinic? In the management of the practical site?

For more information, please visit www.mcsprogram.org

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Session 4:

- **eLearning Considerations**
  - Presentations: Not every slide has audio, if it does have audio, it will automatically play.
  - Slides do not auto advance: Let them play and click “next” when you have finished the slide or there is a pause of more than 3 seconds.
  - You will need to view each slide to be able to pass the module assessment.
  - The key resources (also in the Reference) are in the Resources section.

- **Technical Requirements**
  - Must have flash software on your machine.
  - Must have up-to-date web browser (Internet Explorer, Google Chrome or Firefox).
  - Must allow executable files, and file with ‘ActiveX directory’.
  - May need to turn off virus scanners, especially if set to remove risks, will remove executable files.
  - May need to play from the folder files, choose “storyline.html”.

- **Activity: Flash Drive Review Instructions**
  - In your group, make sure everyone can:
    - Find and open the module they want.
    - Click on icons to play the module.
    - Click on a resource to open it and close it.
    - Play a video.
    - Answer a question.
    - Complete a module assessment (don’t worry about the score).
    - Close a module and return to where you were.
Instructor Lead Training | PowerPoints

Session 5:

Key Terms Game

True or False...?
- Sex refers to biological differences between men and women.
- TRUE... and Gender refers to social, economic, political and cultural opportunities based on sex.

Key Terms Game

- What is the difference between gender equality and gender equity?
- Equality means both enjoy equal rights and equity means both have equal opportunities.

Inequality looks like this....

- Women are more likely than men to experience sexual and domestic violence.
- Men are often paid more than women for the same work.
- Men are in more positions of power within the medical field and in business.
- Women bear the brunt of the AIDS epidemic, both in terms of total infections and in care and support for those living with HIV.
- Women have less opportunity for leadership positions
- Other examples??

Equity vs. Equality

[Cartoon image: for a fair selection, everyone has to face the same issue. Please climb that tree.]

[Graphic: comparison between equality and equity]
Equity in Practice

- An affirmative action policy adopted by a health facility to increase the number of women in senior leadership posts may be gender-equitable because it leads to ensuring equal rights among men and women.
- Providing additional life skills coaching and support to female students may help reduce student drop-outs and lead to greater equity in education.
- Other examples?

Key Terms Game

- For each example, indicate if it is a gender ROLE (expected tasks or roles) or a gender STEREOTYPE (expected likes or behaviors).

<table>
<thead>
<tr>
<th>STEREOTYPE</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;boys don't cry&quot;</td>
<td>&quot;men should become doctors, not nurses&quot;</td>
</tr>
<tr>
<td>&quot;girls are more compassionate&quot;</td>
<td>&quot;women should be submissive&quot;</td>
</tr>
</tbody>
</table>

Gender-Responsive Pedagogy: Definition

- What do we mean by “gender-responsive pedagogy?”
- Gender-responsive pedagogy refers to teaching and learning processes that take into account the specific learning needs of female and male students.

Gender-Responsive Pedagogy: Teacher Biases

The gender biases of teachers are often expressed through language that reflects their personal beliefs and stereotypes regarding women and men, and the social norms related to men’s and women’s roles and responsibilities.

Gender-Responsive Pedagogy: Teacher Biases, cont’d

- Women are not as good at science as men.
- Women make better nurses than doctors because they are naturally nurturing.
- Women are better doctors than men because they are more emotional and they use emotional behavior.

Gender-Responsive Pedagogy: Teacher Biases cont’d

Don’t use gender-insulting language, but let it be by your students, and speak up when fellow teachers and other adults speak this way.
Liberia Educational Standards Address Gender

Area 4: Institutional Management
• Addresses sexual harassment policies
• Pregnancy and other gender-related health issues

Know your educational accreditation standards!

Application Exercise

• Review the gender-responsive pedagogy checklist and self-assess your current practices
• Be honest! You do not need to share your answers
• We will ask for reflections after you finish.

For more information, please visit

Abate and Child Survival Program
USAID

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Twitter.com/NCPJADC
Session 6:

Faculty Development Program
Getting Started on the eLearning Modules

Weekly Activities

Respond to the discussion project
Complete the assigned module
Complete the assigned module exercises
Meet with your peers or mentor to complete exercises and identify any questions
Send any questions

Instructional Planning Worksheet Template

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>Learning Activities</th>
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<th>Resources</th>
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<tbody>
<tr>
<td>Teacher students how to prepare a lesson. Students observe the performance checklist.</td>
<td>Direct observation</td>
<td>Handout: preparing lesson plans</td>
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</table>

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<tbody>
<tr>
<td>Given a range of client case studies, identify the appropriate family planning counseling tasks for each type of client, completing all the tasks on the checklist.</td>
<td>Direct observation</td>
<td>Handout: Different types of counseling clients Case studies for different types of counseling clients</td>
<td></td>
</tr>
</tbody>
</table>
Main Focus until the Next Session

- Completed instructional worksheet
- Portfolio Session plans and materials: Bring your exercises from TL02, including a session plan

How Will your Participation be Assessed?

<table>
<thead>
<tr>
<th>Criteria</th>
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<tbody>
<tr>
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For more information, please visit:

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Twitter.com/ICFJpkol

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Faculty Development Program

Instructor Lead Training 2 PowerPoints

Session 1:

How Will your Participation be Assessed?

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ILT #2 Goals and Focus

- Share the status of your change management project
- Provide you with practice and feedback on your Theoretical Learning exercises
- Address any questions or concerns from the Theoretical Learning modules
- Prepare your portfolio
- Improve your PowerPoint presentation
- Demonstrate effective facilitation of a game, case study or presentation
- Additional computer skills practice
- Describe the content included in the clinical/practical and assessment modules and expectations for completion

Select a Unit:

- Theoretical Learning
- Clinical or Practical Learning
- Student Assessment and Program Evaluation

Goals of the Faculty Development Program

- Leadership
- Teaching skills
- Gender-sensitive pedagogy

For more information, please visit

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Session 2:

Objectives

- Review your TL exercises
- Draft your portfolio resources based on the instructional planning worksheet
- Incorporate feedback from others

Review of TL02 Exercises

- TL02 Exercise 1: Review a Course Syllabus
- TL02 Exercise 2: Develop Course Grading Criteria
- TL02 Exercise 3: Develop a Course Schedule
- TL02 Exercise 4: Develop a Session Plan (we’ll do this next and work on it all this week)

Review of TL02 Exercises: Discussion Questions

- TL02 Exercise 1: Review a Course Syllabus: The syllabus is provided for you. What improvements did you identify that you added or would like to add?
- TL02 Exercise 2: Develop Course Grading Criteria: This is also determined by the council. Were you able to apply the information and if so, how?
- TL02 Exercise 3: Develop a Course Schedule: Were you able to use the templates or course schedule samples included in TL02 module resources section? Who is willing to share theirs?

Work on Course Schedules: Activity

- Using TL02 Exercise 3: Develop a Course Schedule, divide participants into small groups by course or similar course that includes a clinical practice component (see TL02 schedule samples in the resources section)
- Using the course schedule examples, each small group will work on a specific course schedule with a focus on the clinical practice component—facilitators will rotate and provide feedback
- Provide 45 minutes for work; then ask a group to project and share—discuss how they schedule clinical practice and share best practices and suggestions

Sample Instructional Planning Worksheet

<table>
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<td>Teacher demonstration of how to prepare a reagent. Students practice after and refer to the steps in the performance checklist.</td>
<td>Direct observation using standard operating procedure or checklist.</td>
<td>Handouts: preparing and labeling reagents</td>
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Sample Instructional Planning Worksheet

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<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>Provide handouts on different types of counseling clients and related family planning tasks. Discuss with the group. In case studies, learners identify appropriate counseling tasks based on different types of clients.</td>
<td>Handout: Relabeled counseling tasks for different types of counseling clients. Case studies for different types of counseling clients.</td>
<td>Draft Session Plan</td>
</tr>
</tbody>
</table>

Crafting Your Portfolio

- Instructional Planning Worksheet
- Create learning activities
- Select and create assessment items
- Identify learning resources

Portfolio

- Session Plan
- Learning Activities
- Learning Resources
- Exercises
- Assessment Items

Main Focus until the Next Session

- Completed instructional worksheet
- Portfolio Session plans and materials: Bring your exercises from TL02, including a session plan

For more information, please visit

facebook.com/CPHybrid, twitter.com/CPHybrid
Session 3:

**Objectives**
- Revise your instructional planning worksheet.
- Describe the key components of your portfolio.

---

**Sample Instructional Planning Worksheet**

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<td>Given reagents, laboratory equipment and appropriate glassware, the learner will prepare and label a reagent according to the steps in the performance checklist.</td>
<td>Teacher demonstration of how to prepare a reagent, students practice preparing and labeling and refer to the steps in the performance checklist.</td>
<td>Direct observation of performance; using standard operating procedure or checklist.</td>
<td>Handout: preparing and labeling reagents</td>
</tr>
</tbody>
</table>

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**Instructor Planning Worksheet Review Demonstration**

- Project a volunteer’s instructional planning worksheet for review and feedback. The group will review and respond to these questions and make recommendations:
  - Are learning objectives written to include behavior, conditions and criteria?
  - Are learning activities relevant and meaningful? Will the learning activities selected ensure learners are able to achieve the learning objectives? (Do the learning activities “mirror” desired behavior?)
  - Do the assessment methods “mirror” the desired behavior? Are they appropriate for the objective?
**Instructor Lead Training 2 PowerPoints**

### Instrucational Planning Worksheet Activity

- In small groups by school, peers review each other’s instructional planning worksheet using these criteria:
  - Are learning objectives written to include behavior, conditions and criteria?
  - Are learning activities relevant and meaningful? Will the learning activities selected ensure learners are able to achieve the learning objectives? (Do the learning activities “mirror” desired behavior?)
  - Do the assessment methods “mirror” the desired behavior? Are they appropriate for the objective?
  - You have 45 minutes for review.

### Crafting Your Portfolio

1. Instructional Planning Worksheet
2. Draft Session Plan
3. Create learning activities
4. Select (and create) assessment items
5. Identify learning resources

### Portfolio

- Session Plan
- Learning Activities
- Exercises
- Learning Resources
- Assessment Items

### For more information, please visit

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Session 4:

Games
- Have a defined learning objective
- Simple
- Fun
- Competitive, with a set of rules
- Limited time

Samples
- Quiz Show Style: Two teams - 1 person from each team comes up at a time to answer a question.
- First to hit the buzzer, grab a baton gets to attempt to answer. They can discuss (or not) with their team before answering.
- Correct answer on first try is 3 points, correct answer by second person is 1 point.

Create an Educational Game
Objective: Use existing content to create an educational game
Instructions:
1. Identify your learning objective(s) for your game.
2. Think of other games from your culture that could be modified to create an educational game. What rules will you establish for your game? Write them down.
3. Create your game, using existing content. Include up to 10 questions or activities, must be able to play the game in under 15 minutes.
4. We will play several of them tomorrow to practice game facilitation and provide feedback.
For more information, please visit
www.mcsprogram.org

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Session 5:

**Faculty Development Program:** Finding Open Educational Resources

**Open Educational Resources**

**ORB-Hub: Reviewed Instructional Videos**

http://www.health-orb.org/

**Global Health Media Project: Animation-Based Videos**

**Global Health Media Project: Live Demonstration Instructional Videos**

**Multimedia in PowerPoint**

Things to remember:
- Resize images proportionately.
- Use the crop tool to exclude extraneous aspects of photos and other images.
- Always save and move your linked audio and video files in the same folder with your PowerPoint presentation so they will play properly.
Finding Images and Photos

- Google Images: http://images.google.com/advanced_image_search
- Flickr: http://flickr.com/search.html
- Photobucket: http://photobucket.com/search.php
- https://commons.wikimedia.org/wiki/Main_Page
- http://flickr.com/photos/
- http://photobucket.com/
- http://www.flickr.com/
- http://www.isscaphoto.com/
- http://www.isscaphoto.com/
Instructor Lead Training 2 PowerPoints

**Session 6:**

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**How Will Your Participation Be Assessed?**

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</table>

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**Clinical or Practical Learning Unit**

**Select a module:**

**CP01: Facilitating Skill Development**

In this module, you will:
- Identify the steps in the skill development process
- Review tips for teaching each type of skill
- Describe coaching skills needed for skill development
- Describe principles for giving effective feedback
- Develop strategies for facilitating skills practice
- Demonstrate skills using a checklist
- Demonstrate coaching skills in practice and feedback session

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**Student Assessment and Program Evaluation Unit**

**Select a module:**

**AE01: Planning for Assessment**

In this module, you will:
- Describe the purpose of blueprinting for competency assessment
- Develop a well-balanced and defensible test blueprint
- Develop a blueprint for OSCE stations

---

**Preparation for the Next Session**

- Bring your CP and AE exercises for peer feedback in particular clinical simulations, assessment items, blueprints and OSCE stations
- Bring your completed portfolio session plan, learning activities, learning resources and 3-5 assessment items (which you can revise during ILT 3
- Be prepared to demonstrate your coaching, demonstration and running and debriefing a clinical simulation skills
ILT #3 Goals

- Submit your portfolio (if not done already)
- Identify and address any outstanding questions or concerns
- Demonstrate demonstration and coaching skills
- Demonstrate how to run a clinical simulation
- Review and refine your sample assessment items and assessment blueprints
- Practice analyzing test item results
- Review and refine OSCE blueprint and station samples OR practice running a mini-OSCE
Faculty Development Program
Instructor Lead Training 3 PowerPoints

Session 1:

How Will your Participation be Assessed?

<table>
<thead>
<tr>
<th>Criteria</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Portfolio</td>
<td>70%</td>
</tr>
<tr>
<td>Successful demonstration of facilitation skills</td>
<td>10%</td>
</tr>
<tr>
<td>Successful demonstration of demonstration skills</td>
<td>10%</td>
</tr>
<tr>
<td>Successful demonstration of coaching skills</td>
<td>10%</td>
</tr>
</tbody>
</table>

ILT #3 Goals and Focus

- Provide you with practice and feedback for the clinical and assessment modules
- Address any questions or concerns from the clinical and assessment modules
- Revise your portfolio assessment items as needed
- Submit your portfolio (if you haven’t already)
- Demonstrate effective coaching and demonstration skills
- Demonstrate how to run a clinical simulation

For more information, please visit

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Session 2:

Module AE01: Planning for Assessment: Blueprinting an Exam

Why do exam blueprinting?
1. Provides framework for assessment.
3. Matches assessment to curriculum objectives.
4. Ensures adequate sampling across subject area and skill domains.
5. Provides scope and relative emphasis of the assessment.
6. Used to construct the assessment.

Interaction

<table>
<thead>
<tr>
<th>Item</th>
<th>% weight</th>
<th>Knowledge</th>
<th>Applied</th>
<th>Process</th>
<th>Analytical</th>
<th>Item Type</th>
<th>No. of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Reading</td>
<td>30</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>M.C.Q.</td>
<td>6</td>
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<td>30</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>M.C.Q.</td>
<td>6</td>
</tr>
<tr>
<td>Practical combination</td>
<td>40</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>Matching</td>
<td>8</td>
</tr>
<tr>
<td>Conceptual precision age</td>
<td>10</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>True/False</td>
<td>2</td>
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<td>TOTAL</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

Interaction

For each topic listed below, indicate if it is primarily knowledge, skill, or attitudinal in focus.

<table>
<thead>
<tr>
<th>Topic</th>
<th>% weight</th>
<th>K</th>
<th>S</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer parts and functionality</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of common software applications</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safe computer use/Preventing viruses and malware</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interaction

Now, based on the type of competency, identify appropriate assessment item types.

<table>
<thead>
<tr>
<th>Topic</th>
<th>% weight</th>
<th>K</th>
<th>S</th>
<th>A</th>
<th>Item Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer parts and functionality</td>
<td>10</td>
<td>X</td>
<td></td>
<td></td>
<td>Matching</td>
</tr>
<tr>
<td>Use of common software applications</td>
<td>40</td>
<td>X</td>
<td></td>
<td></td>
<td>M.C.Q.</td>
</tr>
<tr>
<td>Safe computer use/Preventing viruses and malware</td>
<td>40</td>
<td>X</td>
<td></td>
<td></td>
<td>M.C.Q.</td>
</tr>
</tbody>
</table>
**Interaction**

Now, based on the weight, identify the appropriate number of questions for a 20-question quiz.

<table>
<thead>
<tr>
<th>Topic</th>
<th>% weight</th>
<th>Type</th>
<th>K</th>
<th>L</th>
<th>Item Type</th>
<th>No. of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer parts and functionality</td>
<td>11%</td>
<td>X</td>
<td></td>
<td></td>
<td>Match</td>
<td>2</td>
</tr>
<tr>
<td>Use of common software applications</td>
<td>50%</td>
<td>X</td>
<td></td>
<td></td>
<td>MCQ</td>
<td>10</td>
</tr>
<tr>
<td>Safe computer use/Preventing viruses and malware</td>
<td>40%</td>
<td>X</td>
<td></td>
<td></td>
<td>MCQ</td>
<td>8</td>
</tr>
</tbody>
</table>

**Sample Blueprint**

<table>
<thead>
<tr>
<th>Topic</th>
<th>% weight</th>
<th>Type</th>
<th>K</th>
<th>L</th>
<th>Item Type</th>
<th>No. of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer parts and functionality</td>
<td>10%</td>
<td>X</td>
<td></td>
<td></td>
<td>Match</td>
<td>2</td>
</tr>
<tr>
<td>Use of common software applications</td>
<td>50%</td>
<td>X</td>
<td></td>
<td></td>
<td>MCQ</td>
<td>10</td>
</tr>
<tr>
<td>Safe computer use/Preventing viruses and malware</td>
<td>40%</td>
<td>X</td>
<td></td>
<td></td>
<td>MCQ</td>
<td>8</td>
</tr>
</tbody>
</table>

**Blueprinting: Instructor Issues**

- Consider the BEST means of assessment
- Sampling vs. testing all content
- Weighting the content areas
- Determining number of questions and assigning points

**Summary**

- Essential learning objectives
- Aligns to KSA
- Item types
- Weighing or degree of emphasis
- Number of score points

For more information, please visit

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Session 3:

**ILT3: Analyzing Assessment Items**

Critiquing Assessment Items
1. Which one of the following is a clinical manifestation of diabetes mellitus?
   - Polyuria
   - Poor appetites
   - Fever

   a. Correct Answer
   b. Percent of "Just Competent" trained service providers who you would expect to answer correctly
   c. Suggested Revisions to Question: Remove word "one" from the stem.  Revise option B to state Poor Appetite.  Begin each response with capital letter.

Distractor Analysis
- Are the distractors (incorrect answers) effective?
- Calculate the percent of individuals selecting each distractor
- Typically in a four option MC item, one item will have a very low selection rate; ok to use 3 choice items
- If problematic, you can revise a distractor rather than replace it

Critiquing Assessment Items
- Volunteer samples?

Summary
- Simple statistical analysis will help you identify and fix problematic questions
- A low difficulty index (under 50%) or
- A negative discrimination means the question needs revision.
Session 4:

Putting Your Test Together

- Make instructions clear (e.g., TF, MCQ, Matching)
- Place item formats together
- Consider placing a few easy questions in the beginning
- Avoid long strings of difficult questions
- Avoid patterns
  - B is always the correct answer
  - ABCD,ABCD, etc.
- Make active decisions regarding time limitations

Item Analysis

- Purpose: To identify which of the item stems and distractors are being effective in the assessment process
- Item Difficulty: % individuals answering correctly
- Item discrimination: the relationship between the item and total exam score

Item Difficulty Index

<table>
<thead>
<tr>
<th>Question</th>
<th>Total Learners</th>
<th>No. Answered Correctly</th>
<th>Difficulty Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>100</td>
<td>1.00</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>95</td>
<td>.95</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>80</td>
<td>.80</td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>70</td>
<td>.70</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>30</td>
<td>.30</td>
</tr>
</tbody>
</table>

Difficulty index calculation: Percent of test takers who answered a question correctly. Can be created for any response type question (TF, MCQ, Matching)

Practice: Item Difficulty Index

<table>
<thead>
<tr>
<th>Question</th>
<th>Total Learners</th>
<th>No. Answered Correctly</th>
<th>Difficulty Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>10</td>
<td>Easy</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>70</td>
<td>Moderate</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>72</td>
<td>Poor</td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>85</td>
<td>Easy</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>90</td>
<td>Easy</td>
</tr>
</tbody>
</table>

Given the difficulty indexes in the table above, label each question as an easy question, a moderate, desirable question, or a poor question that should be revised or removed.

Item Discrimination: Positive is Good

- A comparison of high and low test scorers that answered an individual item correctly
- A positive discrimination is desirable
  - Indicates that those who know content has selected the correct answer
  - Lack of discrimination may be OK
    - Mastery of essential content
  - Look for 0.3 or higher for item shells
### Formula: Discrimination

<table>
<thead>
<tr>
<th>Response Options</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top 10</strong></td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td><strong>Bottom 10</strong></td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

*D = Correct/Total (Top) – Correct/Total (Bottom)  
D = 7/10 – 4/10 = 3/10 = 0.3

Desirable Positive Discrimination

<table>
<thead>
<tr>
<th>Response Options</th>
<th>A</th>
<th>B*</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top 10</strong></td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Bottom 10</strong></td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

B = Correct/Total (Top) – Correct/Total (Bottom)  
B = 2/10 – 3/10 = -1/10 = -0.1

Suspect Negative Discrimination

### Distractor Analysis

- Are the incorrect answers effective?  
- Are people taking the bait?  
- Calculate the percent of individuals selecting each distractor  
- Typically in a four option MC item, one item will have a very low selection rate; consider 3 choice items  
- Consider modification to distractor rather than replacement

### Summary

- Simple statistical analysis will help you identify and fix problematic questions  
- A low difficulty index (under 50%) or  
- A negative discrimination means the question needs revision.
Session 5:

**Module AE03: Analyzing Assessment Results Item Banking**

<table>
<thead>
<tr>
<th>Rationale for Item Banking</th>
<th>Tools Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Store quality items</td>
<td>• Course materials</td>
</tr>
<tr>
<td>• Improve items</td>
<td>• Existing exam items</td>
</tr>
<tr>
<td>• Increased evidence of validity</td>
<td>• Storage system</td>
</tr>
<tr>
<td>• Model from items that work</td>
<td></td>
</tr>
<tr>
<td>• Categorization of items</td>
<td>• Computer software</td>
</tr>
<tr>
<td>• Facilitates exam blueprinting</td>
<td>• Item analysis data</td>
</tr>
<tr>
<td>• Avoids “recreating the wheel”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 1: Develop a Taxonomy</th>
<th>Step II: Consider Your Platform for Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Content areas</td>
<td>![Image of a computer and storage device]</td>
</tr>
<tr>
<td>• Other parameters</td>
<td>![Image of a table with buttons]</td>
</tr>
<tr>
<td>• Blooms Taxonomy - Clinical decision making</td>
<td></td>
</tr>
<tr>
<td>• Specialty</td>
<td></td>
</tr>
<tr>
<td>• Regional applications (culture, language, practice variation)</td>
<td></td>
</tr>
<tr>
<td>• Knowledge, Skill or Attitudes</td>
<td></td>
</tr>
</tbody>
</table>

**Questions to Ask Yourself**

- How many exam questions do you have available to you right now?
- How much do you know about each of them?
Step III: Develop Organization and Storage
- Keep it simple
- Group-based decision making
- Chose organization based on tool selected

Step IV: Assemble Materials
- Courseware
- Existing exams
- Other miscellaneous existing items
- New item shells (ideas)
- Item analysis data

Step V: Assemble the Bank
1. Establish item bank managers.
2. Input and tag items based on taxonomy
3. Encourage colleagues to input and output from item bank
4. Update regularly

Step VI- Regularly Review the Bank
- Establish schedule for item bank review
  - Individual and Group Review Sessions
  - Update item statistics on a regular basis
  - Prune or improve items that do not work
  - Model from high functioning items

Midwifery Department Item Bank Example
- Midwifery Department
  - Central Banker
  - OB Course
  - L&D Course
  - GYN Course
  - Peds Course

Midwifery Department Item Bank (continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>OB Course</th>
<th>L&amp;D Course</th>
<th>GYN Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Knowledge</td>
<td>Application</td>
<td>Knowledge</td>
</tr>
<tr>
<td>1</td>
<td>Written Exam</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Written Exam</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>
Let's Test Your Learning Activity 1

List below three reasons you would want to complete item banking:
1. [answer]
2. [answer]
3. [answer]

- Score quality items
- Improve items
- Increased evidence of validity
- Model from items that work
- Categorization of items
- Facilitates exam blueprinting
- Avoids “recreating the wheel”

Let's Test Your Learning Activity 2

Below you'll find the steps required to establish an item bank. Put them in the correct order!

<table>
<thead>
<tr>
<th>Building an Item Bank</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
<td></td>
</tr>
<tr>
<td>Develop a Taxonomy</td>
<td></td>
</tr>
<tr>
<td>Step 2:</td>
<td></td>
</tr>
<tr>
<td>Consider Your Platform for Banking</td>
<td></td>
</tr>
<tr>
<td>Step 3:</td>
<td></td>
</tr>
<tr>
<td>Develop Organization and Storage</td>
<td></td>
</tr>
<tr>
<td>Step 4:</td>
<td></td>
</tr>
<tr>
<td>Assemble the Bank</td>
<td></td>
</tr>
<tr>
<td>Step 5:</td>
<td></td>
</tr>
<tr>
<td>Develop a Taxonomy</td>
<td></td>
</tr>
<tr>
<td>Step 6:</td>
<td></td>
</tr>
<tr>
<td>Assemble Materials</td>
<td></td>
</tr>
</tbody>
</table>

Let's Test Your Learning Activity 2: Answer Key

Below you’ll find the steps required to establish an item bank.

<table>
<thead>
<tr>
<th>Building an Item Bank</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
<td></td>
</tr>
<tr>
<td>Develop a Taxonomy</td>
<td></td>
</tr>
<tr>
<td>Step 2:</td>
<td></td>
</tr>
<tr>
<td>Consider Your Platform for Banking</td>
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<tr>
<td>Step 3:</td>
<td></td>
</tr>
<tr>
<td>Develop Organization and Storage</td>
<td></td>
</tr>
<tr>
<td>Step 4:</td>
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<td>Assemble Materials</td>
<td></td>
</tr>
<tr>
<td>Step 5:</td>
<td></td>
</tr>
<tr>
<td>Assemble the Bank</td>
<td></td>
</tr>
<tr>
<td>Step 6:</td>
<td></td>
</tr>
<tr>
<td>Regularly Review the Bank</td>
<td></td>
</tr>
</tbody>
</table>
**Session 6:**

### Module AE02: Constructing Assessment Items and Tools
Advanced Principles and Using Item Shells

#### Scenario-Based Example 1

A 24 years old female has been receiving care in your health center since learning that she was HIV positive three years ago.

- Never started on ART
- Frequent episodes of generalized body weakness
- Recurrent vaginal candidiasis which failed to respond to clotrimazole suppositories on two occasions
- Maintains full time employment

#### Question 1
Which of the following WHO stage is this patient in based on the available clinical information?

- a) Stage I
- b) Stage II
- c) Stage III
- d) Stage IV

Key: C

#### Question 2
Which of the following laboratory tests would be MOST important prior to initiating ART?

- a) Total lymphocyte count
- b) CD4 cell count
- c) Viral load
- d) KOH test and/or wet smear for diagnosis of candidiasis

Key: B

#### Question 3
Which of the following actions would be MOST appropriate?

- a) Refer to a gynecologist for further investigation and treatment of her recurrent vaginal candidiasis.
- b) Advise to stop working until she has been started on ART
- c) Maintain the patient's current care regime

Key: (A)