



Learning for Performance

A Guide and Toolkit for Health Worker Training and Education Programs





The Capacity Project is an innovative global initiative funded by the United States Agency for International Development (USAID). The Capacity Project applies proven and promising approaches to improve the quality and use of priority health care services in developing countries by:

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Preface

Purpose

This manual presents *Learning for Performance*, a systematic instructional design process based on IntraHealth's experience in designing reproductive health and HIV/AIDS training and performance improvement programs over the last 27 years in countries around the world. Our work in human resources for health, especially through the Capacity Project, also informs this document.

The process outlined in this document is being used in many countries and continues to evolve as we learn additional lessons about what is most useful and practical in various contexts.

Who is this document for?

This manual is intended for individuals and teams who are developing or strengthening education or training programs as a component of performance improvement or human resources for health programs—instructors; trainers; instructional designers; curriculum developers; supervisors and training managers.

While this guidance was created primarily to facilitate the work of those who are developing learning interventions, it can also be used to teach the *Learning for Performance* process.

Organization of this document

The first section of this document introduces the *Learning for Performance* process and explains its benefits. The section also contains descriptions of three areas of work that are fundamental to the process: performance improvement, instructional design and human resources for health.

The second section provides detailed instructions to lead curriculum developers through each step in the *Learning for Performance* process and incorporates a set of worksheets, each with abbreviated instructions, which should be used with the process.

The worksheets are also available separately in MS Word format. In some situations it may be appropriate to use a targeted selection of the tools rather than going through the entire process.

Learning for Performance can be used with other guidance on training and learning. Companion resources are listed at the point in the text where they may be most useful. Additional resources are listed in the References and Resources list, the last section of this document.

Introduction: Overview and Background of *Learning for Performance*

This section introduces the *Learning for Performance* process and explains its benefits. It also contains descriptions of three areas of work that are fundamental to the process: performance improvement, instructional design and human resources for health.

Introduction

Health workers¹ are among the most valuable resources of any health system. Developing a strong workforce requires training health workers to perform their jobs, updating their skills and knowledge to match evolving health needs and helping health workers advance along appropriate and satisfying career paths.

Learning interventions² are critical components of offering good quality health care services, ensuring that health workers perform to standard and addressing the human resources for health crisis facing many countries. (See page 7.)

Learning for Performance

Learning for Performance is an instructional design process that is targeted to fix a performance problem or gap when workers **lack the essential skills and knowledge** for a specific job responsibility, competency or task. The *Learning for Performance* process combines experience in two key areas, performance improvement and instructional design, described on pages 4-6. This process can be used to develop learning interventions of any scale.

¹ *Health worker* is used in this document to refer to all people primarily engaged in actions with the principal intent of enhancing health (e.g., doctors, nurses, midwives, lab assistants, managers and supervisors and health managers), as well as informal, community or family care providers.

² *Learning intervention* is used in this document to refer to any type of education or training program. These include *any educational course or program* (e.g., pre-service or basic education, in-service training, continuing education, continuing professional programs or courses), as well as *all learning approaches* (e.g., classroom-based courses, distance learning, on-the-job learning, independent self-study, clinical practicum and blended learning approaches).

Learning for Performance steps

Learning for Performance uses a step-by-step process with practical tools. The steps of *Learning for Performance* appear in this document in the order they are typically performed. As the development team follows the process, it is often appropriate to go back to an earlier step and refine the outputs to make the education or training program focused, efficient and effective. The *Learning for Performance* process is flexible and, depending on the situation, it may be possible to use only portions of the process, or enter the process at steps other than the first step. Experience shows that the first few steps usually occur in tandem.

Box 1: The steps to *Learning for Performance*

1. Specify the learning goal related to the gap in skills and knowledge
2. Learn about the learners and their work setting
3. Identify existing resources and requirements for training and learning
4. Determine job responsibilities (or competencies) and major job tasks related to the gap in skills and knowledge
5. Specify essential skills and knowledge
6. Write learning objectives
7. Decide how to assess learning objectives
8. Select the learning activities, materials and approaches and create the instructional strategy
9. Develop, pretest and revise lessons, learning activities and materials, and learning assessment instruments
10. Prepare for implementation
11. Implement and monitor learning and logistics
12. Assess effectiveness of the learning intervention and revise

Benefits of the Learning for Performance process

Using the *Learning for Performance* process can:

- ***Improve performance of the workforce.*** Learning interventions developed with the *Learning for Performance* process prepare workers for specific job tasks where there is a performance problem or gap and a priority health need.
- ***Improve the quality of services.*** Learning interventions that are delivered within a performance improvement context, addressing the five key performance factors, can improve the overall quality of services.
- ***Contribute to worker satisfaction.*** When learning interventions are relevant to specific job responsibilities and tasks, health workers may be more engaged and involved in learning and more motivated to perform well on the job.
- ***Increase the effectiveness of learning.*** When learning interventions focus on what is most important, learning can improve. Learners do not have to guess what they are expected to learn. Trainers, teachers and preceptors know what they are expected to teach.
- ***Increase the efficiency of training.*** Learning interventions will use the learners' and trainers' time efficiently by focusing on *essential* content, skills and knowledge, while delivering specific outcomes. The time required for training is generally shorter than when the intervention is developed without following the *Learning for Performance* process. This may be especially beneficial for efforts to address human resources for health issues. (See page 7.)
- ***Improve decision-making.*** Decisions about learning interventions are based on specific, practical, relevant criteria when the *Learning for Performance* process is used.

Key Companion Resources for *Learning for Performance*

Transfer of Learning: a guide for strengthening the performance of health care workers. Available: http://www.intrahealth.org/index.php?option=com_content&task=view&id=70&Itemid=128

Preservice Implementation Guide: a process for strengthening preservice education. Available: <http://www.jhpiego.org/resources/pubs/psguide/psimpdgen.pdf>

Effective Teaching: a guide for educating healthcare providers. Available: http://www.jhpiego.org/resources/pubs/effteach/EffTeach_man.pdf

Performance Improvement

Learning for Performance places learning interventions in the context of performance improvement—a method of analyzing performance problems, determining the missing factors that lead to these problems and setting up systems to improve and support worker performance. Performance improvement is based on addressing the factors that need to be in place for workers to perform their jobs to standard. There is some evidence that attention to the performance factors can also improve job satisfaction and staff retention.³

Box 2: Factors that support health worker performance	
<i>Performance Factors</i>	<i>Questions to identify which factors are missing</i>
1. Clear job expectations	Do workers know what they are supposed to do?
2. Clear and immediate performance feedback	Do workers know how well they are doing?
3. Adequate physical environment, including proper tools, supplies and workspace	What is the work environment like, and what systems are in place to support it?
4. Motivation and incentives to perform as expected	Do workers have a reason to perform to standard? Does anyone notice? Do they believe the task is important or that they can perform successfully?
5. Skills and knowledge required to do the job	Do workers know how to do the job?

When a performance gap is identified in terms of these performance factors, a solution or set of interventions can be matched to the root cause of the gap.

For example, if health workers do not know HOW to do the job, the performance gap is likely caused by a lack of skills and knowledge, and a learning intervention is an appropriate solution.

Performance gaps may be identified at different levels. For example:

- **At the health facility level**, e.g., workers on the job are not performing up to an established standard
- **At a district or regional level**, e.g., there are not enough workers who are prepared to address a priority health problem
- **At the system level**, e.g., an entire cadre or a new cadre has been assigned a new area of responsibility but has not yet been prepared to perform the work.

³ Yumkella F. Retention of health workers in low-resource settings: challenges and responses. Capacity Project Technical Brief No. 1. Chapel Hill, NC, IntraHealth International, 2006. Available: http://www.capacityproject.org/images/stories/files/technical_brief_no1_retention.pdf

When multiple performance factors are missing

Often, more than one performance factor is responsible for a performance gap. For best results, interventions to close a performance gap must be carefully coordinated. When managers, supervisors and administrators ensure that all of the performance factors are in place, they are providing the organizational support that health care workers need to perform to expected levels. For example:

- *If workers do not know how to process surgical instruments correctly (factor 5) and the autoclave is broken (factor 3) then at least two interventions are needed to improve infection prevention practices at the facility. If training is not coordinated with an equipment upgrade, performance may not improve.*
- *If supervisors do not understand how surgical instruments should be processed and if they do not require and encourage proper practice (factor 2), performance still may not improve, even if the autoclave is fixed and the learning intervention succeeds at closing a gap in skills and knowledge.*

Box 3: Is a learning intervention the only intervention needed?

When more than one performance factor is responsible for an overall performance gap, coordinating all related interventions helps ensure that, together, the interventions will result in better performance. For the above example where clinic-based health workers are not performing appropriate infection prevention practices to standard, the missing performance factors and related interventions are listed below.

<i>Missing performance factors</i>	<i>Planned interventions</i>
lack of sterilization equipment and consumable supplies for infection prevention	<ul style="list-style-type: none"> • provide sterilization equipment and ongoing supply of consumables to improve the physical environment in the clinic
health workers do not know how to perform appropriate infection prevention practices	<ul style="list-style-type: none"> • provide training in skills and knowledge for infection prevention tailored to the health workers’ characteristics and infection prevention responsibilities, worksite requirements and protocols
lack of clear job expectations and performance feedback about infection prevention procedures	<ul style="list-style-type: none"> • develop and disseminate infection prevention service standards and protocols • develop job descriptions that clearly describe responsibilities in infection prevention • train staff to use supportive supervision to convey and reinforce job expectations about infection prevention

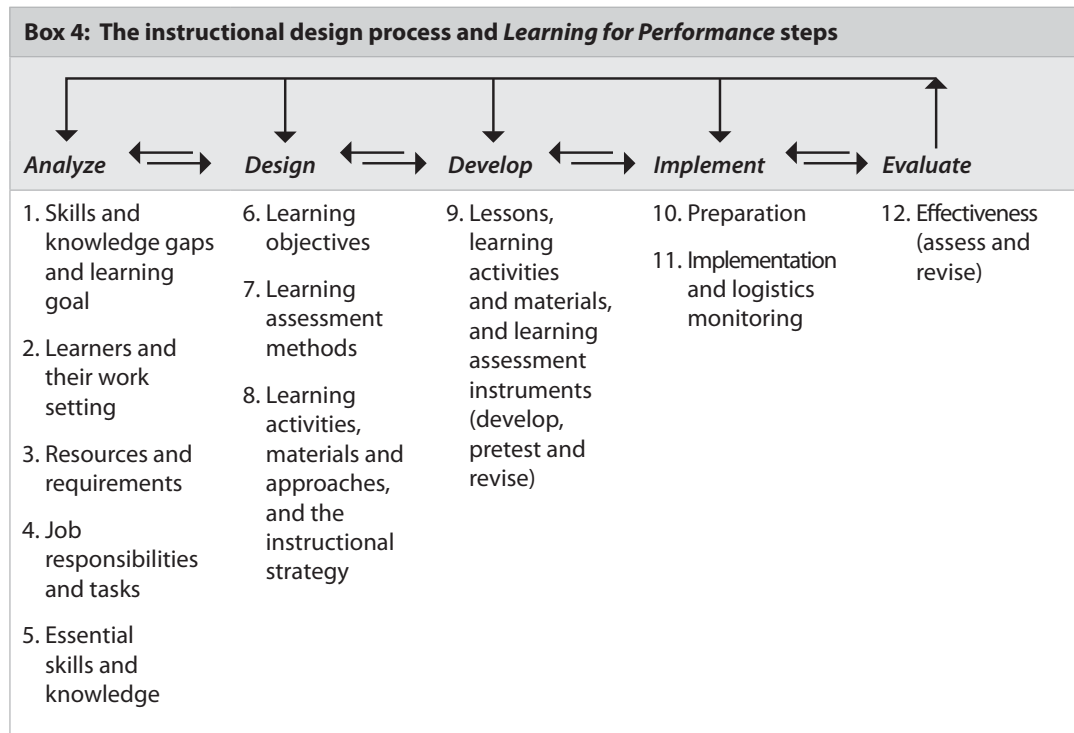
Key Companion Resource for Performance Improvement

Stages, steps and tools: a practical guide to facilitate improved performance of healthcare providers worldwide. Available: <http://www.intrahealth.org/sst/>

Instructional Design

Instructional design is a systematic five-phase process used worldwide in health, education, business and industry to develop training and educational programs. The five phases of the instructional design process are: analyze, design, develop, implement and evaluate.

Learning for Performance applies the five phases of instructional design and strengthens the relevance and efficiency of the learning by systematically linking the curriculum content and learning methods to the job tasks, the specific learners and specific work contexts. This results in better transfer of learning to improved performance on the job. (See References and Resources for more information on instructional design.)



Learning for Performance: The Importance of Understanding the Human Resources for Health Context

Many countries are taking bold steps to identify human resources for health issues and to meet the goal of getting adequate numbers of “the right health workers with the right skills in the right place doing the right things.”⁴ Wherever human resources issues are identified, a multisectoral approach to planning, developing and supporting the health workforce is recommended. Within the framework of this multisectoral approach,⁵ addressing the performance of health workers is a key strategy. The *Learning for Performance* approach can play an important role in enhancing health worker performance.

Box 5: Selected situations where *Learning for Performance* supports efforts to address human resources for health issues

Learning for Performance enhances and increases the efficiency of education and training efforts required to support the following processes:

- Aligning training with national health goals and priorities
- Accelerating the training of health workers
- Upgrading the skills of an entire health worker cadre
- Creating and deploying a new health worker cadre
- Shifting tasks among existing cadres (e.g., from doctors to nurses, or from nurses to community health workers)
- Improving the density of health workers in a specific area
- Upgrading skills and knowledge of newly recruited health workers for the settings in which they will work
- Developing fast-track bridging programs to assist existing health workers to gain the skills and knowledge needed to advance to positions in higher priority health worker cadres
- Training community workers, who may have no prior education in health, to address uneven rural/urban distribution of health care services

4 World Health Organization. *Working together for health: the World Health Report 2006*. Geneva, WHO, 2006. Available: http://www.who.int/whr/2006/whr06_en.pdf

5 An international working group has developed a framework with the following elements: policy, finance, education, partnership, leadership and human resources for health management systems. This framework is becoming a common reference point for stakeholders, policymakers and others addressing human resources for health issues. Available: <http://www.capacityproject.org/hrhactionframework/>

The *Learning for Performance* approach offers several key benefits within the context of human resources programming because it:

- Ties learning to specific identified job responsibilities and competencies, which is especially beneficial in task shifting
- Eliminates unnecessary topics from training, which reduces “curriculum bloat”
- Identifies the most appropriate ways to develop health workers (approaches, methods, assessments, etc.)
- Incorporates skills practice and application of skills and knowledge that are directly linked to the worker’s job situation
- Addresses the performance factors that determine whether new skills and knowledge can be applied on the job (transfer of learning).

The structured process of *Learning for Performance* can be used to develop professional skills, behaviors and attitudes that may be lacking in the traditional education for health professionals. Examples of such skills are: management skills for nurses, supportive supervision, lifelong learning skills, sensitivity to gender issues, treating all clients or patients with respect and empathy (e.g., destigmatization and elimination of discrimination toward persons living with HIV and women seeking postabortion care).

Key Companion Resources for Human Resources for Health

In some settings comprehensive human resources for health (HRH) assessments are available. However this is often not the case. An optional worksheet is included to help training developers understand and take into account the human resources context in which the *Learning for Performance* process will be applied and the specific linkages between a learning intervention and other HRH strategies and approaches. Additional companion resources for human resources for health are listed below.

Management Sciences for Health. HRM [Human Resources Management] Resource Kit. Available: <http://erc.msh.org/mainpage.cfm?file=2.8.0.htm&module=hr&language=English>

The Capacity Project. Human Resources for Health Global Resource Center Available: <http://www.hrhresourcecenter.org/>

Global Health Workforce Alliance. HRH Action Framework. Available: <http://www.capacityproject.org/hrhactionframework/>

Tool 2 (Optional): Human Resources for Health Context Worksheet (See Step 1)

World Health Organization. HRH Tools and Methodologies Available: <http://www.who.int/hrh/tools/en/>

Maximizing the Success of Learning Interventions

Training is often proposed as a stand-alone intervention to fix a service delivery problem. This approach often fails to bring about desired changes in health care or in worker performance, not because the training has failed, but because of a failure to support training with interventions that address other root causes of poor performance.

Every effort should be made to ensure that other potential root causes of performance gaps are identified and addressed to better ensure the success of learning interventions. For example:

- *When health workers are being trained to provide antiretroviral therapy, other interventions may be needed to strengthen the supply and logistics system to avoid stock-outs of antiretrovirals.*
- *When workers are trained to take on additional tasks, it may be important to adjust compensation or provide non-financial incentives for taking on additional work.*

Stakeholder support and involvement are critical to the development of learning interventions of any scale. Especially when the learning intervention involves multiple groups, it is essential to convene a stakeholder group or to involve stakeholders at the beginning of the development of a learning intervention and to involve them when key decisions are made. Stakeholder groups may include representatives from:

- Ministries of Health, Education, Finance
- Professional associations and councils (e.g., nurses, midwives, doctors, lab technicians)
- Schools of nursing, midwifery, medicine, allied health and others
- Community leaders
- Health education professionals
- Specific groups that will benefit from improvements in services (e.g., persons living with HIV, women, mothers, adolescents).

Learning for Performance: The Step-by Step Process

This section provides detailed instructions to lead developers of learning interventions through each of the following steps in the *Learning for Performance* process. It also incorporates a set of worksheets to be used with the process.

- Step 1.** Specify the learning goal related to the gap in skills and knowledge
- Step 2.** Learn about the learners and their work setting
- Step 3.** Identify existing resources and requirements for training and learning
- Step 4.** Determine job responsibilities (or competencies) and major job tasks related to the gap in skills and knowledge
- Step 5.** Specify essential skills and knowledge
- Step 6.** Write learning objectives
- Step 7.** Decide how to assess learning objectives
- Step 8.** Select the learning activities, materials and approaches and create the instructional strategy
- Step 9.** Develop, pretest and revise lessons, learning activities and materials and learning assessment instruments
- Step 10.** Prepare for implementation
- Step 11.** Implement and monitor learning and logistics
- Step 12.** Assess effectiveness of the learning intervention and revise

Step 1: Specify the learning goal related to the gap in skills and knowledge

The *Learning for Performance* process begins by reviewing the human resources for health issues and performance problems/gaps, determining if these issues or problems/gaps require a learning intervention, and if so, specifying a **learning goal** that is related to a gap in skills and knowledge.

When a learning intervention is part of a response to human resources for health issues, human resources assessments may provide valuable information to guide the development of the learning intervention.

In the context of performance improvement, **the result of a performance needs assessment⁶ that has identified a performance problem is a key starting point.** (See Box 2, which contains key performance questions.)

Examining existing information about human resources or performance gaps will help ensure that:

- A learning intervention (education/training, etc.) is the right solution.
- The learning intervention is tailored for the right level of health worker, in the right place and for the essential skills or competencies.
- Other interventions that are needed to make sure the learning intervention is successful are also identified.
- The learning intervention is designed to help learners transfer skills and knowledge to the job, resulting in improved job performance. (See pages 4-5 for more information on performance factors.)

Process

Use Tool #1 *Sources of Information Worksheet*, Tool #2 (Optional) *Human Resources for Health Context Worksheet* and Tool #3 *Performance Factors Worksheet* to record information in this step.

1. **Collect and review existing information** about human resources for health issues and performance problems/gaps.
2. **Describe the gap in performance (skills and knowledge gap) that a learning intervention can address.** Information from a performance needs assessment or human resources assessment is especially useful. At this point it is important to:

⁶ **Performance Needs Assessments and Human Resources for Health Assessments**—A performance needs assessment is an activity to define the gap between desired health worker performance and actual performance, identify missing performance factors that are root causes of the gap, and select interventions to address the root causes. A human resources for health assessment is a large, macro-level activity to identify gaps in a country's capacity to plan, develop and support their health workforce so that health services can meet health needs.

- Clearly define the problem and identify its cause(s)
- Verify that the problem is related to job performance
- Verify that the problem can be addressed, at least in some part, through a learning intervention.

3. Write a goal or overall objective for the learning intervention. The goal of a learning intervention is a statement that clarifies, in broad terms, what the learner will be able to do after the learning intervention. For example:

Box 6: Sample gaps and goals	
<i>Lack of skills and knowledge causing a performance gap</i>	<i>Learning goal</i>
<i>75% of clinic-based health care workers do not know how to perform infection prevention practices to standard to reduce the risk of transmitting infections in health care facilities.</i>	Goal for in-service training: <i>Clinic-based health care workers will be able to perform appropriate infection prevention practices to standard to reduce the risk of transmitting infections in health care facilities.</i>
<i>100% of graduates of the nursing school do not know how to prevent HIV/AIDS infection or provide ART.</i>	Goal for pre-service education: <i>Nursing school graduates will be able to provide HIV/AIDS prevention and ART services, according to the national HIV/AIDS service policies, standards and procedures guidelines.</i>

4. Describe the interventions that are planned to address the other performance factors besides skills and knowledge. While training developers do not always have authority to address all performance gaps, it is important to raise missing performance factors with stakeholders or others who can make changes in these areas. This is critical to maximizing the success of learning interventions and ensuring that the trained health workers will have what they need to apply their new skills and knowledge on the job. Also, describe how you will coordinate with those who are responsible for the other interventions to close the performance gap and achieve desired performance.

Helpful Hints

- A performance needs assessment is a good starting point for determining how to develop a learning intervention. Further analysis of the learners, the work environment, the resources and requirements and the job tasks is also needed. Later steps in the *Learning for Performance* process address these points.
- Sometimes a comprehensive learning intervention can address several performance factors. (See example in Box 7, page 14.)

Box 7: A comprehensive performance and learning intervention

Private midwives in Ghana wanted to expand their services to adolescents, but they did not have experience or skills in working with clients in this age group. The Ghana Registered Midwives Association, working with IntraHealth International and the PRIME II project, developed a self-directed learning program that targeted several performance factors to ensure the success of the learning intervention.⁷

<i>Performance factor</i>	<i>Interventions</i>
1. Clear job expectations	Self-learning materials based on Ghana's <i>National Reproductive Health Service Policy and Standards</i> and international standards in adolescent reproductive health and counseling
2. Clear and immediate performance feedback	Facilitator visits and peer review group sessions for performance feedback and learning from each other
3. Adequate physical environment, including proper tools, supplies and workspace	Counseling materials (penile models, job aids, etc.) and family planning supplies provided to learners Learning activities encouraged creative adolescent-friendly modifications to service sites (e.g., private space and separate entry for adolescent clients)
4. Motivation and incentives to perform as expected	(Private midwives were already motivated to expand their services, as noted above) Learning activities examined how health providers' personal values and attitudes toward adolescents can affect their behavior toward adolescents, and therefore adolescents' interest in seeking health care from them
5. Skills and knowledge required to do the job	Printed self-study modules with readings, learning activities, self-assessments, role plays and exercises for learning partners covering skills and knowledge in adolescent reproductive health, counseling and education, family planning/emergency contraception/postabortion care and sexually transmitted infections/HIV/AIDS services for adolescents

⁷ Nelson D. Improving client-provider interaction and counseling. PRIME II Results Review. Chapel Hill, NC, IntraH, 2002. Available: http://www.prime2.org/prime2/pdf/RR_2002_Ghana_RTL_300.pdf

Tool 1: Sources of Information Worksheet

Suggested Use: It is important to base learning interventions on the most reliable and up-to-date resources available. It is rare that all the information and all of the best sources are available, so check multiple sources where possible. Some of the best sources of information are briefly described below.

Instructions: Use this sheet to record all available sources of information, including resources unique to the specific situation in which you are working. As you fill out other worksheets, begin by checking the resources you listed on this sheet to make sure your work is based on the best available data.

Resources that may be available	Summary of relevant information (with page number or URL)
National human resources for health data (e.g., human resource database or information systems, HRH assessments, training database)	
National human resources for health plan	
Performance needs assessments	
National policies, guidelines and standards , especially those on human resources for health	
Written job descriptions	
Evidence-based standards and guidelines from WHO and professional associations	
World Health Organization HRH database , which gives composition and distribution of the workforce by country	

Tool 1: Sources of Information Worksheet (continued)

Resources that may be available	Summary of relevant information (with page number or URL)
<p>Curricula for health-related professional and vocational courses generally available from the Ministry of Education or Ministry of Health</p>	
<p>Health professional organizations for information about certification and scopes of practice</p>	
<p>Expert health workers and providers for information about all aspects of service delivery</p>	
<p>Supervisors and managers for information about job tasks, performance, motivation, incentives, etc.</p>	
<p>Observation (e.g., supervisors' observation of workers on the job)</p>	
<p>Small-scale studies</p>	
<p>Interviews with community members, health workers, stakeholders and others</p>	
<p>Other sources of information for this situation</p>	

Tool 2 (Optional): Human Resources for Health Context Worksheet

Suggested Use: This tool is optional. It is intended for situations where a learning intervention is required to address human resources for health (HRH) issues (e.g., training for task shifting or to prepare a new cadre). The purpose of the tool is to help the training developer understand the human resources context in order to design learning interventions that are appropriate to this intended use. For example, if a learning intervention is part of a plan to rapidly mobilize a thousand new health workers, it will look significantly different from an intervention to integrate a new content area into pre-service education.

Instructions: Discuss the human resources for health context for the learning intervention with one or more persons who are in charge of the human resources effort. Consider the questions and factors listed in the column on the left below. Use the column on the right to describe the programmatic context of the learning intervention. Answer as many questions as you can now. Keep adding information to the worksheet as you identify it. Describe the most promising program strategies in the last box.

Other Related Tools and Resources: See Key Companion Resources on page 8.

Resources Used: List data sources used in completion of this worksheet. (Refer to Tool 1.)

<i>Issues to Consider</i>	<i>Record Answers Here</i>
<p>A. What are the known HRH issues?</p> <ul style="list-style-type: none"> • Too few qualified providers • Uneven rural/urban distribution • Unfilled positions and attrition • Need to upgrade the skills of a cadre • Need to create a new cadre • Need to shift tasks among cadres • Need to improve retention of workers • Need to improve compensation • Others 	

Tool 2 (Optional): Human Resources for Health Context Worksheet (continued)

<i>Issues to Consider</i>	<i>Record Answers Here</i>
<p>B. Approximately how many qualified health workers are needed (based on the best available data)?</p> <ul style="list-style-type: none"> • Hint: Query the Global Atlas of the Health Workforce (http://www.who.int/globalatlas/) • If good data are not available, make a reasonable rough estimate based on the best available expertise. 	<p>Current number of qualified workers: _____</p> <p>Current population in need of services: _____</p> <p><i>Calculations</i></p> <p>Current density: _____ per 1,000 population</p> <p>Desired density: _____ per 1,000 population</p> <p>Number of additional workers needed _____</p>
<p>C. For task shifting:</p> <ul style="list-style-type: none"> • What cadres presently deliver services? • What other cadres could do the job? (Who are the least specialized workers? Who would the individuals served trust? Who is most likely to stay on the job where they are most needed?) 	
<p>D. What HRH strategies are needed and how do these strategies support each other?</p> <ul style="list-style-type: none"> • Performance support and improvement • Recruiting workers who are already qualified • Training new cadres with specialized roles • Recruiting individuals from the community • Increasing incentives and improving workplace safety to reduce attrition • Others 	

Tool 3: Performance Factors Worksheet

Suggested Use: Use this worksheet to link learning interventions to performance improvement. Use the results of a performance needs assessment if available. If the assessment has not been done, work with a knowledgeable contact and any reliable data available to complete the sheet.

Instructions: Review the factors in the left hand column. Use the column on the right to describe the problems. If there is a gap in skills and knowledge, use the final section to specify the Learning Goal and describe interventions to address any other performance factors.

Other Related Tools and Resources: Step 1: Specify the learning goal related to the gap in skills and knowledge; Box 2: Factors that support health worker performance; Box 3: Is a learning intervention the only intervention needed?; Box 7: A comprehensive performance and learning intervention; and Tool 2 (Optional): Human resources for health context worksheet.

Resources Used: List data sources used in completion of this worksheet. (Refer to Tool 1.)

A. Describe the performance gap or change in health services
(Hint: Copy from a performance needs assessment, if available.)

Consider the questions in the column on the left and describe the gap in the space to the right.

B. Job Expectations Gap

- Do workers know what they are expected to do and how well they are expected to do it?
- Do workers have written job descriptions, standards, job aids, etc.

If no, describe the problems in this area.

C. Feedback Gap

- Do individual workers receive feedback on what they do well and what needs to change?
- Do workers receive feedback on performance of the facility where they work?

If no, describe the problems in this area.

D. Work Environment Gap

- Is the physical environment adequate? (e.g., water, power, space, ventilation, privacy, repairs needed)
- Are the necessary tools, equipment and supplies available when and where they are needed?

If no, describe the problems in this area.

Tool 3: Performance Factors Worksheet (continued)

Consider the questions in the column on the left and describe the gap in the space to the right.

E. Motivation and Incentives Gap

- Do workers feel confident in their ability to perform the job successfully?
- Do they think the work is important or makes a difference?
- Do they feel the job is valued by their colleagues or community?
- Is the workplace safe? (e.g., workers are respected and not subjected to violence; infection prevention measures to protect workers are in place)
- Are salaries adequate and paid when due?

If no, describe the problems in this area.

F. Skills and Knowledge Gap

- Do workers know how to perform the job?
- Do they have the skills and knowledge they need?

If no, describe the problems in this area.

Describe the plan to address all identified performance problems listed above.

Use this section to specify the **learning goal** and initiate the best possible coordination between learning interventions and other interventions that improve job performance.

<i>Copy or reference each problem identified in a performance needs assessment or in the previous section of this sheet. Write one problem in each row and fill in all columns for that problem. Add rows as needed.</i>	<i>Planned Intervention and Goal</i>	<i>Person Responsible</i>	<i>Actions to coordinate or support through the learning intervention</i>

Step 2: Learn about the learners and their work setting

Effective learning interventions take into account **who performs the job tasks related to the performance gap and under what work conditions**. This step answers those questions with information that helps you envision possible approaches to training that will or will not work for the situation.

Knowing the **characteristics of the learners**—their background, experience, current or future job responsibilities, recent training, literacy/languages, gender, total number and so forth—helps you direct the learning intervention to the appropriate level.

Knowing the **physical and social environment of the work setting**—facility size, condition and locations; range of services offered; work team; supervisory and referral systems and so forth—helps you tailor the learning intervention to the real-life conditions of the sites where the learners work.

Factors in the work setting can **support proper job performance or discourage performance**. If conditions in the work setting discourage proper performance the **learning intervention may need to address these**. For example, job aids, problem-solving exercises, supervisor training and changes that increase health workers' motivation to perform may be needed.

Process

Use Tool #4 *Learner Characteristics Worksheet* and Tool #5 *Work Setting Characteristics Worksheet* to record information in this step.

1. Find out about the learners

Sources of information include: data from the performance needs assessments and training information databases, site visits and observations (or written reports of these), and interviews with stakeholders, managers/supervisors and a representative group of learners.

Some of the important *characteristics of learners* to consider in designing a learning intervention are:

- **Job category and job description** (community health worker, midwife, nurse, physician, specialist, etc.) of the workers who perform the job tasks related to the performance gap
- **Reading and writing level and language** or languages they use. If workers are not used to reading, more illustrations may be needed. Will it be possible to provide information in their native language?
- **Educational background and work experience**. What pre-service education have learners achieved? Are learners members of professional associations? Are learners used to referring to international standards documents or websites?

- **Computer literacy.** Do learners have access to and use computers and the internet?
- **What learning approaches have the workers experienced?** How do they learn best? How do they like to learn?
- What do learners **already do or know how to do** that is similar to the job tasks related to the performance gap?
- Do the health workers **like learning**? What motivates them to learn? (e.g., certification, personal satisfaction at doing a better job, spending time with others in similar jobs, time away from the job). What do they **dislike about learning**? (e.g., feeling like it is a waste of time, taking tests, time away from the job, feeling like they already know how to do the job).

2. Find out about the work setting

Some of the most important characteristics of the work setting to identify are:

- **Where do the learners work?** (e.g., health post, primary care center, teaching hospital) What services are offered? How are the facilities staffed? What equipment and supplies are available? What is the referral system?
- **What resources** (reference documents, standards and guidelines, etc.) are available on the job and are they up-to-date?
- **What is the supervision system** for the workers?
- Are **training activities held at the site, or could they be?** (e.g., group training, practicum site, on-the-job training)
- **What is the workload like?** How efficient is client flow? Is there adequate caseload and preceptor/learner ratio for learning?
- **Are there supply problems** with essential drugs and equipment? If so, this may require additional interventions focused on systems.

3. Make notes about approaches to learning that might be suitable.

Review the information collected on the worksheets. Think about training approaches that have been successful with similar content, similar learners and similar work settings. Keep all options in mind because there may be several appropriate training approaches. Consider the busy schedule of most providers and the possibility of several alternative, at least partially self-directed learning methodologies when appropriate. (See Step 8 for ideas.)

Helpful Hints

- Information about learners, their work settings and the resources and requirements for training (see Step 3) is usually collected at the same time.
- If some information is not readily available now, add it later if it becomes available. Avoid the tendency to make assumptions and guesses without verifying them through document reviews, interviews and observation.

Tool 4: Learner Characteristics Worksheet

Suggested Use: Use this worksheet to collect and organize information about each group of health workers who will participate in the learning intervention.

Instructions: Complete this form using the information gathered during document and training information database reviews, interviews and observations with learners, supervisors and other knowledgeable informants.

Other Related Tools and Resources: Step 2: Learn about the learners and their work setting

Resources Used: List data sources used in completion of this worksheet. (Refer to Tool 1.)

Identify the categories of workers who may need training and their characteristics.

A. Job Category and Numbers of Learners per Category

- Medical officer _____
- Medical assistant _____
- Nurse _____
- Midwife _____
- General practice physician _____
- Specialist physician _____
- Other provider cadre _____
- Other job category (trainer, preceptor, research assistant, etc.) _____

B. Characteristics to consider

Background

- Reading and writing level; language(s)
- Educational background
- Gender, socio-cultural issues, geographic location
- Similarity to the persons who use services
- Work experience
- Job responsibilities that include job tasks similar to those included in this learning intervention
- Membership in professional organizations

Training and learning

- Recent in-service training received (last 3 years)
- Preferred training approaches and methods (group-based, individual, technology, on-site, etc.)
- Motivation to complete training (certification, recognition, job expectation, interest, etc.)
- Willingness to experience different learning approaches
- Barriers to full participation in training (logistical, motivational, etc.)

List and describe each category of learner here. Attach job descriptions if available.

Tool 5: Work Setting Characteristics Worksheet

Suggested Use: Use this worksheet to organize information about the work setting. This information is essential to plan the learning intervention and supporting interventions. If a performance needs assessment has been done, much of the information for this worksheet may already be available.

Instructions: If you are conducting site visits, use one sheet for each facility. In other situations, it may be most feasible to compile information on a group of facilities (e.g., all district hospitals) on one sheet. Check information that may have been collected for assessments, evaluations and program planning and copy it in here as needed.

Other Related Tools and Resources: Step 2: Learn about the learners and their work setting

Resources Used: List data sources used in completion of this worksheet here. (Refer to Tool 1.)

Describe the facilities where learners work. Include the considerations that are listed to the left.

A. Service Delivery Setting

- Name and location
- Sector (public sector, NGO, faith-affiliated, private-for-profit, community-owned, etc.)
- Level of care (primary, secondary, tertiary)
- Staffing (number, positions vacant, etc.)
- Population/community served (number, other known characteristics)
- What is the range of services offered at the work site, including referral and outreach services?
- What is the referral system for services not provided at the learners' work site? Which cases do they refer and to whom or to where?
- What is the size and condition of the facility (number and type of rooms, privacy, access to clean water, job aids, client education materials, supplies and equipment)? If a facility assessment has been conducted, summarize findings.

Tool 5: Work Setting Characteristics Worksheet (continued)

Describe the facilities where learners work. Include the considerations that are listed to the left.

B. Reference Documents Available and Needed

- Service policies, standards, procedures guidelines
- Job aids

C. Supervision System

- Who supervises the learners? On-site or visiting supervisor? How often does supervision take place?
- If there is no formal supervision system, how does the worker come to understand job expectations and receive feedback on performance?
- What does the supervisor do when s/he meets with the learners (e.g., problem-solve, provide feedback, ensure learners have tools and supplies, observe and evaluate, provide on-the-job training)
- Are supervision guidelines and checklists available?

D. Work Groups

- Who are the learners' co-workers?
- How many co-workers are there and what cadres do they represent?
- How do they work together?
- What is their division of responsibilities?

E. Potential to Implement Specific Training and Learning Interventions at the Work Sites

- What is the appropriateness of implementing any of the possible training approaches (e.g., classroom, practicum, on-the-job, independent study) at the work site?
- Would the site be convenient for learners and practical for trainers?
- Is the client caseload adequate for practice, if needed?
- How similar is the site to the actual settings where learners work?
- Does the site have an existing training mechanism (e.g., a teaching hospital, continuing education program, training rooms, trained trainers/preceptors)?

Step 3: Identify existing resources and requirements for training and learning

This early stage in developing the intervention is also the best time to get specific information about the **resources available, specific requirements for training** and any **constraints** (factors that limit what is possible) to avoid wasting time developing a learning intervention that will not meet requirements or that cannot be put into place.

Process

Use Tool #6 *Resources and Requirements Worksheet* to record information in this step.

1. Find out about the possibilities and practical limits for the learning intervention (resources, requirements and constraints)

Information sources include: interviews or conversations with stakeholders and supervisors, results of a performance needs assessment, proposals, reports, national documents or policies.

The following are examples of information you may find at this time:

- The training time may already be established, e.g., a 5-day in-service training or an 18-month pre-service curriculum.
- The organization may not want their health workers to be away from their worksites for long periods of time.
- The stakeholders may want to pilot a new training approach with only a sample of health workers who need the upgraded skills, but then have a plan for scaling up the training to reach all who need it.
- Testing requirements may be set by national bodies or professional associations.
- Requirements for entrance, graduation and certification may be set by professional associations or councils.
- Certification requirements may limit training options.
- Written materials may require approval at the national level.
- Video or computer equipment to access some existing materials may not be available. Or, you may find that technology is more available than expected.
- The budget may or may not cover some types of activities or materials.
- Decisions about who will attend training may have been made.

2. Think about how the information affects the possibilities. What is possible, what is not possible and what changes would make a difference? Make notes about activities or approaches that may be suitable. Be practical, but also be creative.

3. If you encounter serious constraints, **explore with stakeholders possible changes to remove constraints**. For example, it may be possible to work with professional associations to revise scopes of practice.

Helpful Hints

- Information about resources and requirements is usually collected at the same time as information about the learners and their work settings (Step 2) through review of documents, interviews and observation.
- As mentioned in Step 2, if some information is not readily available, add it later if it becomes available. Avoid the tendency to make assumptions and guesses. If you must make assumptions, try to verify them by using the sources of information mentioned above.
- **Do not always assume that things cannot change.** If you find that the situation appears to limit the success of the intervention or you have a great idea but resources are not available, write up your recommendations and ideas and try to discuss them with people who have the authority to make changes or who could allocate additional resources. However, be prepared to work with the existing situation if change is not possible.

Box 8: When established requirements for training don't match the need

An organization wants to limit the amount of time learners are permitted to be away from their jobs and has therefore already established the training time. However, your assessment has uncovered the need for more skill development than is possible in this established time. What can you do?

Think of how to explain this need to the stakeholders, perhaps in terms of the cost-benefit of the intervention and quality of its results. Give them some creative options for how to provide opportunities for the learners to develop skill competencies that will avoid interruptions in service delivery.

For example, options might be structured on-the-job training or shorter group-based training interventions followed by self-study and/or peer learning with supervisory coaching until the learners are competent. These interventions, with targeted technical assistance, could even build the capacity of the organization to sustain a continuing education program over time, an option that might be of particular interest to the organization.

Tool 6: Resources and Requirements Worksheet

Suggested Use: Use this worksheet to record the resources and requirements that enable or constrain the learning intervention.

Instructions: Review and consider all available information that affects decisions about the learning intervention and record it on this sheet.

Other Related Tools and Resources: Step 3: Identify existing resources and requirements for training and learning; Box 8: When established requirements for training don't match the need

Resources Used: List data sources used in completion of this worksheet here. (Refer to Tool 1.)

Describe the policies, decisions, requirements and resources that support or constrain the learning intervention.

A. Requirements (policies; decisions already made by stakeholders, etc.)

- Expenditure restrictions (e.g., per diem payment, incentives)
- Type of training and time allowed for training
- Limits on time learners can spend in training and away from their post
- Location of training
- Selection of trainers or facilitators and selection of participants
- Existing scopes of practice, definitions and limitations on what cadres can do
- Existing curriculum and training materials that must be revised
- Mandate for attendance at training
- Curriculum and training requirements (e.g., for certification, licensure, continuing education credit)
- Human resources for health plans, policies and strategies

Tool 6: Resources and Requirements Worksheet (continued)

Describe the policies, decisions, requirements and resources that support or constrain the learning intervention.

B. Available Resources

- Funding
- People
(e.g., subject matter experts, training designers, trainers/facilitators, preceptors, managers, established learning partners/groups, co-workers, media and materials production specialists, evaluators, clients or community groups)
- Documentation
(e.g., existing and up-to-date service policies and procedures, job aids/learning guides and other content materials and media)
- Clinical training equipment, supplies, commodities in working order or repairable
(e.g., anatomical models, clinical equipment, infection prevention supplies, family planning commodities)
- Facilities
(e.g., classroom, clinic/work site)
- Media and equipment
(e.g., computers, internet, laser projectors)
- Travel
(e.g., transport, lodging, food, per diem, vehicles)
- Communication
(e.g., postage, courier, phone, internet)

Step 4: Determine job responsibilities (or competencies) and major job tasks related to the gap in skills and knowledge

Statements that define the **overall skills and knowledge** gap and **learning goal** (as in Step 1) are just the starting point for determining what the learning intervention will teach. These statements are not precise enough to define the content of a learning intervention.

In this step, the learning content is defined more precisely by describing the **job responsibilities** (or job competencies) related to the skills and knowledge gap. Job responsibilities are then broken into the **major job tasks**.

Process

Use Tool #7 *Job Responsibilities and Tasks Worksheet* to identify the job responsibilities and major job tasks.

1. List the job responsibilities or competencies where there is a skills and knowledge gap. Sources of information about job responsibilities include:

- written job descriptions
- national service delivery guidelines
- results of a performance needs assessment
- interviews with health workers who need to participate in the learning intervention
- interviews with supervisors and current expert health workers.

List **ONLY** the job responsibilities or competencies that are directly related to the performance gap. Limiting the learning intervention to what is essential is the key to focusing the intervention where it is most needed and developing an efficient intervention that uses available time and money to the best advantage.

2. Break each job responsibility or competency into its major job tasks.

- Begin each task description with a **“doing” verb (action verb)** (e.g., provide, examine, wash, counsel).
- Describe the task as a performance (**a behavior that can be observed and measured**) and so that it can be evaluated by observation. If a job task cannot be described in “doing” terms, it may be information (or job knowledge) rather than a job task. Job knowledge is addressed in Step 5: *Specify essential skills and knowledge*.

3. Include ONLY the major job tasks that are NECESSARY to carry out the job responsibility. Unnecessary tasks should not be included in the learning intervention. Job responsibilities and tasks listed in this step may be further refined based on additional criteria in later steps, e.g., learner characteristics.

Box 9: Sample job responsibilities and related job tasks	
<i>Job responsibility</i>	<i>Selected job tasks related to job responsibility</i>
Provide postpartum family planning	<ul style="list-style-type: none"> • With the client, determine the most appropriate FP method • Instruct client on FP method use • Plan for return visit
Provide antenatal care	<ul style="list-style-type: none"> • Take a targeted antenatal history • Estimate the date of delivery • Help pregnant woman and her family develop a birth preparedness plan
Clean the examination rooms	<ul style="list-style-type: none"> • Prepare disinfectant cleaning solution • Wipe all surfaces with an appropriate disinfectant solution

Helpful Hints

- It may be practical to gather information at the same time for this step and for Steps 2 and 3 (The learners and their work setting, and resources and requirements for training and learning) because the information sources are often the same or very similar.
- Detailed job descriptions or national service delivery protocols, where available and up-to-date, are excellent resources for describing the job responsibilities and major job tasks, but many job descriptions are very general and do not give specific responsibilities. Discuss the available resources with the subject matter experts and select one or two that the experts agree are up-to-date and appropriate for the workers who will be trained and the work setting.
- It may be helpful to check with several program managers to validate the information in this step.
- Often the first draft listing of job responsibilities is too broad—it covers responsibilities that are not directly related to the performance gap. In this case, streamline the list to **eliminate tasks that are not directly related to the gap**. This process of streamlining can be thought of as a filter that keeps responsibilities and tasks that are essential and removes those that are not. Filtering out tasks that are not essential at this early step saves time that could be wasted in developing content that is not actually needed.

Step 5: Specify essential skills and knowledge

Learning interventions should be based on the **essential skills and knowledge** that learners must have **to perform each major job task** identified in Step 4. This breakdown of major job tasks into essential skills and knowledge provides the foundation for writing performance-based learning objectives.

Process

Use Tool #8 *Essential Skills and Knowledge Worksheet* to identify the essential training content.

1. For each major job task, ask:

- “What does the health worker have to **be able to do** to perform the job task?” To answer this question, **break down each major job task into steps** and list them in the order they are performed based on up-to-date guidance. These steps are the **essential skills**.
- “What does the health worker have to **know** to perform the job task?” To answer this question, list **what the health worker has to know to do the step**. This is the **essential knowledge**.

The answers to these questions are the **skills and knowledge components of the job**, and they make up the **essential training content** that should be included in the learning intervention.

2. Remove any skills or knowledge on the list if you cannot answer YES to these questions:

- “Does the health worker absolutely **HAVE TO BE ABLE TO DO** this to perform the job task to the established standard?”
- “Does the health worker absolutely **HAVE TO KNOW** this to perform the job task to the established standard?”

Be vigilant in eliminating content that is “nice-to-know” but not necessary. Vigilance in this step keeps the learning intervention focused on performance rather than becoming an overly general course, or “bloated” with content that is not essential.

3. When attitudes are important, (e.g., non-discrimination toward persons living with HIV), list the behaviors, steps or skills that show the attitude. (See examples in Box 10, page 34.) Attitudes or beliefs can often be written in the context of interpersonal skills or self-management skills, but may have a knowledge component as well.

If changing attitudes or increasing motivation is critical, additional interventions to address motivation, incentives or feedback may be necessary to bring about change.

Box 10: Sample behaviors and skills that demonstrate attitudes	
Sample behaviors (These behaviors also include a knowledge component.)	Attitude
<ul style="list-style-type: none"> • Ensures privacy and that the client is comfortably seated • Encourages the client to indicate if she becomes too uncomfortable during the procedure 	Positive attitude and interaction with clients
<ul style="list-style-type: none"> • Appeals to a variety of preferences about learning • Creates an accepting rather than defensive climate for learning 	Training that encourages learning
<ul style="list-style-type: none"> • Changes practices that let a person's HIV status become known (segregating clients, color coding records, etc.) • Models respectful treatment of persons with HIV during all client care 	Decreased stigma or discrimination against a particular group

4. **Check the skills and knowledge with experts**, one or two stakeholders and persons who have been trained in this job task. These persons may further reduce the content. However, they may also add missing content. **ONLY** add content if it is essential for performing the job tasks. When possible, it may be helpful to talk with persons who have participated in similar trainings to establish which skills and knowledge they are currently using. This can help determine what is essential and why (e.g., they are critical steps, frequently used, universally applicable).

Avoid adding non-essential skills and knowledge. There is a tendency to add information that is not necessary. Keeping the learning intervention focused on **essential** skills and knowledge makes it clearer to the learners what they need to learn.

The training content (skills and knowledge to do the job tasks) should be considered final when the tasks are completely described.

Helpful Hints

- Refer to current technical resources (e.g., training materials, service protocols and reference manuals, locally available resources and guidelines from standard-setting bodies such as the World Health Organization and professional organizations). If no up-to-date resources or standards exist, consider if they must be created, and coordinate development of training with development of standards.
- During this process, be alert for problems in performance that may be related to other root causes, especially attitudes and motivation. While solving these problems may be beyond the immediate scope of the person in charge of developing the learning intervention, the chances of successfully improving performance are greater when all performance factors are addressed. (See pages 4-5 in Introduction.)

Tool 8: Essential Skills and Knowledge Worksheet

Suggested Use: Use this worksheet to specify the **essential skills and knowledge** required to perform each **major job task** identified in Tool 7.

Instructions: Use a separate sheet for each major job task you are analyzing. Write the major job task in the box labeled **A**. In columns **B** and **C**, list the skills and knowledge the worker would need to complete the job task. Review each item in the skills and knowledge lists and ask yourself, “Could the worker still perform the task if they did not have that skill or knowledge?” **Eliminate skills and knowledge that are not essential for these particular learners.**⁹

Other Related Tools and Resources: Step 5: Specify essential skills and knowledge

Resources Used: List data sources used in completion of this worksheet here. (Refer to Tool 1.)

A. Major Job Task for Learning

B. Skills Required

What does the health care worker need to BE ABLE TO DO to perform this job task? Is this skill REQUIRED to perform to standard?

C. Knowledge Required

What does the health care worker need to KNOW to perform this job task? Is this knowledge REQUIRED to perform to standard?

⁹ Eliminating non-essential skills and knowledge is particularly important when the learning intervention is focused on developing the skills of health workers who may need more information about what to do and less information about medical principles. It is also important when a cadre or group is being trained for a very specific job.

Step 6: Write learning objectives

Learning objectives state what the learners (participants, students, trainees, etc.) will be able to do as a result of the learning intervention. Learning objectives are based on the essential skills and knowledge identified for each major job task. They are used in the following ways:

- To determine the content, activities and assessments of the learning intervention
- To determine the best sequence for training
- To let the learners know exactly what they are expected to learn
- To let the trainers/instructors know what skills and knowledge to teach
- To avoid developing content that is too general
- As the basis for measuring if the learning intervention is successful.

Process

Use one copy of Tool #9 *Instructional Planning Worksheet* for each major job task from Tool #7 *Job Responsibilities and Tasks Worksheet*.

1. Write one or more learning objectives for each major job task by focusing on the essential skills and knowledge. Learning objectives should describe what the learner does, not what the trainer or course does.

(See Box 12: *Useful verbs for writing performance goals and objectives*, page 39.)

2. Make sure learning objectives have the following SMART characteristics:

Specific: using an action verb that describes the behavior precisely

Measurable: using a verb that describes an observable/measurable action

Attainable/achievable: realistic given the circumstances and resources

Relevant: pertaining to the job tasks and work setting of the learner

Timely/time-bound: specifying a realistic timeframe for performance when appropriate

3. Make sure learning objectives have the following components:

- a **performance** that is observable/measurable—what the learners will do
- **conditions** of performance—circumstances under which the learners will perform the objective
- **criteria or standards** for measuring acceptable level of performance—how well the learners must carry out the objective

(See Box 11: *Sample Learning Objectives*, page 37.)

Box 11: Sample learning objectives			
Learning Objective (the learner will be able to...)	Observable/measurable performance	Conditions of performance	Criteria
On a written test, list at least 2 ways to maintain privacy for women receiving reproductive health care.	list ways to maintain privacy for women receiving reproductive health care	on a written test	at least 2 correct responses
During a role play that simulates counseling a family planning client, demonstrate use of effective verbal and non-verbal communication skills by scoring at least 20 of 24 points on the “using interpersonal communication skills” checklist.	demonstrate use of verbal and non-verbal communication skills	during a role play that simulates counseling a family planning client	by scoring at least 20 out of 24 points on the “using interpersonal communication skills” checklist
From the signs and symptoms described, decide correctly in at least 4 out of 5 case studies if you can treat the woman or she needs to be referred to a higher service delivery level.	decide if you can treat the woman or she needs to be referred to a higher service delivery level	from the signs and symptoms described in case studies	correctly in at least 4 out of 5 case studies
While conducting a home visit, demonstrate the ability to follow the guidelines for planning and conducting home visits to promote maternal and infant health care.	demonstrate the ability to follow the guidelines for planning and conducting home visits to promote maternal and infant health care	while conducting a home visit	follow the guidelines
Given a selection of equipment and supplies, some necessary, some not, assemble a standard tray for performing an IUD insertion.	assemble a tray for performing an IUD insertion	given a selection of equipment and supplies, some necessary, some not	standard
During supervised clinical practice, provide care according to the standards for women experiencing a non-life-threatening complication in the postpartum period.	provide care for women experiencing a non-life-threatening complication in the postpartum period	during supervised clinical practice	according to the standards
During demonstration on an anatomical model, perform a physical assessment for a pregnant woman, completing all critical tasks on the clinical checklist.	perform a physical assessment for a pregnant woman	during demonstration on an anatomical model	completing all critical tasks on the clinical checklist

4. **Revise** objectives as needed. Compare the objectives with the essential skills and knowledge. Check for gaps and duplicates. Remove objectives if they describe what should happen during training (e.g., watch a video, read certain pages, practice with a model).
5. **Sequence your learning objectives** in the most logical and feasible way to determine the basic structure and sequence of the learning intervention.
 - Objectives should be grouped logically so that ***tasks, topics or problems that are closely related will be taught together.***
 - The ***order should help learners learn.*** For example, the knowledge required to perform a task should be learned before the skill. The proper sequence can also affect motivation to learn. If learners understand ***why information is important, they may be more motivated to learn it*** and to perform tasks correctly on the job.
 - ***Simpler skills and information that is used in many situations (foundations) should be taught before complex or specialized tasks.***
This may also encourage learners to see how new skills and knowledge are related to what they already know or do.
 - Where a step-by-step order is important, ***the sequence of steps should be clear.***

Helpful Hints

- Avoid using verbs that do not describe observable/measurable action and expressions like: *know, comprehend, appreciate, believe, realize, understand, consider, internalize and develop awareness of*, since it is difficult to observe or measure these verbs. See Box 12, page 39, for examples of more specific verbs and revise any very general learning objectives.
- If the training designer cannot rewrite the learning objective in more precise terms, perhaps a subject matter expert can help. If it is not possible to write a more precise objective, the objective can probably be eliminated.
- Learning objectives from other courses are a helpful starting point, but make sure they match the essential skills and knowledge defined in Step 5. Avoid adding objectives that do not correspond to the essential skills and knowledge. Adding objectives that are “nice to know,” but not essential, makes the learning more complex and less focused on improving an identified performance gap.
- Oftentimes, learning objectives only contain the observable/measurable performance (and not the conditions and criteria). This is okay, but when it is time to develop learning assessment tools, you will need to specify the conditions and criteria/standards for measuring the acceptable level of performance on the learning objectives.

Box 12: Useful verbs for writing performance goals and objectives

accept	contribute	identify	monitor	resist
adjust	control	illustrate	name	resolve
adopt	cooperate	implement	negotiate	restate
advise	correspond	improve	notify	revise
agree	counsel	examine	observe	schedule
apply	create	execute	obtain	score
analyze	critique	exercise	offer	secure
appraise	defend	expedite	order	select
argue	define	experiment	organize	share
arrange	delegate	explain	operate	show
ask	demonstrate	express	participate	sign
assemble	describe	follow	perform	sketch
assess	design	formulate	place	solve
assist	determine	furnish	plan	sort
assure	develop	help	practice	specify
attend to	devise	indicate	praise	sterilize
avoid	diagram	initiate	predict	submit
calculate	differentiate	insert	prepare	suggest
categorize	direct	inspect	proceed	summarize
choose	discriminate	instruct	promote	supervise
classify	discuss	interpret	propose	support
collaborate	display	inventory	provide	synthesize
collect	dispose	join	question	tabulate
compare	disseminate	judge	rate	tell
compile	distinguish	label	recall	test
comply	distribute	list	recite	train
compute	draft	listen	recognize	transcribe
conduct	dramatize	locate	recommend	translate
conform	duplicate	maintain	remove	use
consolidate	engage in	make	repeat	verify
consult	establish	manage	report	volunteer
construct	estimate	match	reproduce	wash
contrast	evaluate	model	research	write

Verbs to avoid when writing performance goals and objectives

appreciate	comprehend	develop an awareness of	internalize	realize
believe	consider		know	understand

Tool 9: Instructional Planning Worksheet

Suggested Use: Use this sheet to make decisions about the learning intervention for each of the job tasks that make up a job responsibility or competency.

Fill in the worksheet as you work through **Steps 6 through 8** of the *Learning for Performance* process.

Instructions:

- Write the objectives that specify exactly what learners will be able to do as a result of the learning intervention. Objectives should be SMART (specific, measurable, attainable/achievable, relevant and timely/time bound). Each objective should describe a measurable performance, outline the circumstances or conditions for the performance and provide criteria for measuring an acceptable level of performance. Revise as needed to make sure there are no gaps or duplication.

Related Tools and Resources:

- Step 6: Write learning objectives
- Box 11: Sample learning objectives
- Box 12: Useful verbs for writing performance goals and objectives

- Sequence the objectives in a logical, feasible way to structure the learning intervention. Group similar items together. Put objectives in an order that helps learners learn, builds from simpler to more complex and makes the relationships between content and the order of step-by-step tasks clear.
- Select assessment methods based on the performance described by the objective.

Related Tools and Resources:

- Step 7: Decide how to assess the learning objectives
- Box 13: Selecting learning assessment methods

- Specify one or more learning activities for each objective. The activity should: a) be appropriate to the objective, b) allow enough practice and feedback to facilitate learning, c) allow learners to work with new information or situations, d) require the learners to apply the skills or knowledge in an environment that is as similar as possible to their actual work setting, e) provide opportunities to practice and solve problems, f) provide specific feedback, and g) encourage learners to take responsibility to assess their own learning.

Related Tools and Resources:

- Step 8: Select the learning activities, materials and approach(es) and create the instructional strategy
- Box 14: Selecting learning activities
- Box 15: Selecting learning materials

- Describe the best learning approach for each objective or group of objectives. The approach should provide for: presenting the content, practice with the skills or knowledge, application of the learning content in a realistic (work) setting and follow up. Five overall learning approaches are: 1) Classroom training and skills practicum, 2) Distance learning, 3) On-the-job training, 4) Independent study or self-study and 5) Blended approach (combining several approaches).

Related Tools and Resources:

- Step 8: Select the learning activities, materials and approach(es) and create the instructional strategy
- Box 16: Selecting learning approaches

Tool 9: Instructional Planning Worksheet (continued)

Major Job Task

Skill or Knowledge	Learning Objective	Learning Assessment Method	Learning Activity and Materials	Learning Approach or Approaches

Step 7: Decide how to assess the learning objectives

Learning assessment methods are techniques and instruments for measuring learners’ achievement of the learning objectives. Immediately after writing learning objectives, decide how to assess them. Selecting learning assessment methods at this time helps make sure that the assessment measures the right thing.

Process

Continue filling out Tool #9 *Instructional Planning Worksheet* to record your selection of learning assessment methods.

1. For each learning objective, select an assessment method that will measure the behavior specified. Refer to Box 13 below for suggestions on how objectives can be assessed based on the type of performance they describe.

Box 13: Selecting learning assessment methods											
Type of Performance	Learning Assessment Methods	Written tests	Learner interview	Learner questionnaire	Supervisor interview	Supervisor questionnaire	Observation (simulation)	Observation (practice)	Client records	Learner Action Plan	Other:
Information recall Recalling information (facts, principles, numbers, list of steps, etc.); usually required to correctly perform a motor skill or decision-making skill		√	√	√							
Motor skills Physical movements done in specific way (e.g., clinical procedure that must be accurately sequenced/timed)							√	√			
Decision-making & problem-solving skills Interpreting a real, unique or complex situation and drawing conclusions. Applying skills or knowledge to a new situation (e.g., making a clinical diagnosis; planning for self-directed learning)		√	√	√	√	√	√	√		√	
Attitudes Beliefs or values, especially those that affect a behavior that can be observed. Attitudes, beliefs and values affect motivation to perform job tasks. (e.g., acceptance of adolescents who seek reproductive health services)			√	√	√		√	√	√		

2. **Check that the assessment methods are practical** for the available resources and the scope of the learning intervention.

For example, if caseload is not adequate for skills to be assessed in a clinical setting, simulated practice may be substituted. It may be more practical to observe the counseling skills using a checklist during a role play, to observe a clinical skill using an anatomical model, or to plan for on-site observation of counseling or clinical skills during follow-up after the course.

Helpful Hints

- If it is very difficult to decide how an objective can be assessed, it is possible that the problem is in the objective, not in the assessment. Consider if the objective should be rewritten.
- Development of learning assessment instruments is described in Step 9. Development and implementation of a monitoring and evaluation plan for the learning intervention is described in Step 12.

Step 8: Select the learning activities, materials and approach(es) and create the instructional strategy

An **instructional strategy** is a written document that describes a plan for the learning intervention. The strategy guides the development of the learning materials, the implementation of the intervention and the evaluation plan. Create the strategy on the basis of the work done in the first steps of the *Learning for Performance* process.

Start by selecting **learning activities, materials and approach(es)** that are suited to the learning objectives and that take into consideration the resources and requirements and the characteristics of learners and the work site. Then add the other components of the instructional strategy as described in the process below.

Process

Continue filling out Tool #9 *Instructional Planning Worksheet* to record your selection of learning activities, materials and approach. Use Tool #10 for the *Instructional Program Overview Worksheet*.

1. Examine each skill and knowledge learning objective and decide which **learning activities** are the most appropriate to facilitate achieving that learning objective.

Learning activities with the features listed below encourage learning:

- The activity is **appropriate to the skill or knowledge described** in the objective. (See Box 14, page 45.)
- The activity allows **enough practice and feedback to develop the skill level** required. Development of proficiency (performance to a high quality standard in a variety of circumstances) requires more practice than developing competency (skills are performed correctly during training with an opportunity for further practice to master the skill on-the-job).
- The activity allows learners to work **with new information or situations**.
- The activities require learners **to use the skills and knowledge** they are learning in the environment where they work, or in a very similar environment.
- Learners have many **opportunities to practice** solving problems.
- Learners receive **specific feedback** as soon as practical after performing a skill and have an opportunity to immediately correct any mistakes.
- Learners are encouraged to **take responsibility** by monitoring and assessing their own learning.

Box 14: Selecting learning activities		
<i>Type of Skill or Knowledge</i>	<i>Examples</i>	<i>Suggested Learning Activities</i>
Motor skill	Place a speculum so the cervix can be seen. Clamp and then cut the umbilical cord.	<ul style="list-style-type: none"> • Live demonstration • Videotaped live demonstration or animation • Simulation with anatomical models and equipment • Guided practice with clients
Information	Identify advantages and disadvantages of the IUD. Identify dose and timing for childhood immunizations. Describe danger signs to watch for during labor and delivery.	<ul style="list-style-type: none"> • Studying learning materials (books, manuals, charts, slides, e-learning program) • Listening to a presentation/lecture • Referring to a job/memory aid or service protocols • Group project (e.g., read, discuss and report)
Decision-making or problem-solving skills	Decide whether lab tests are needed based on history, examinations and standards. Identify when labor is not progressing and referral to a hospital is necessary.	<ul style="list-style-type: none"> • Discussions leading to making consensus decisions or actual decision-making with supervision as appropriate • Case studies • Guided learning experiments • Problem-solving exercises • Clinical exercises • Making an action plan • Learning journal or diary
Interpersonal skills and other behaviors that are based on attitudes	Behaviors that are based on showing respect for all clients and clients' rights, such as: Ensure the client is comfortably seated and that privacy is maintained. Tell adolescents and unmarried women about the need to use dual protection. Counsel sexually active adolescents on options to avoid getting STIs. Encourage the client to ask any unanswered questions.	<ul style="list-style-type: none"> • Guided reflection based on personal experience • Group activities about values and attitudes • Respected guest speakers • Brainstorming • Discussion • Role play <p>Changing behaviors affected by attitudes may require several interventions, not just a learning intervention. For example, supervision checklists and standards may need to be updated.</p>

Adapted from Gagne, 1988.

2. Select **learning materials** to support the learning activities, based on

- the learning objective and the type of learning activity selected to achieve that objective
- the learner characteristics (e.g., educational background, job responsibilities, access to technology)
- available resources for purchasing, producing or disseminating the materials
- any requirements for the learning (e.g., if particular standards, guidelines or reference information must be used or adapted).

Box 15: Selecting learning materials	
<i>Types of Learning Materials</i>	<i>Potential Learning Applications</i>
<p>Print Materials</p> <ul style="list-style-type: none"> • books, monographs • procedures and training manuals, service guides • glossaries, bibliographies • curricula • posters • flipcharts, flipbooks • charts, graphs, tables, photographs • checklists • worksheets • self-instructional modules • handouts 	<ul style="list-style-type: none"> • stimulus material such as case studies for group discussions or role play descriptions • self-instruction with built-in objectives, information, activities, prompts and feedback • learning guides for practicing procedures • learning how to use job aids in the form of illustrated booklets, checklists and pocket counseling cards for community-based workers; laminated wall charts, flow charts, decision trees, procedure charts, pocket cards for clinical providers
<p>Real objects, models and equipment</p> <ul style="list-style-type: none"> • anatomical models • clinical commodities, supplies • clinic equipment 	<ul style="list-style-type: none"> • skill demonstration and practice • on-site training in using/maintaining equipment
<p>Slides, computer-generated presentations, or overhead transparencies</p>	<ul style="list-style-type: none"> • stimulus material for group discussions, e.g., compare normal vs. abnormal, compare changes over time • visuals to illustrate lecture/presentation

Box 15: Selecting learning materials (continued)	
<i>Types of Learning Materials</i>	<i>Potential Learning Applications</i>
Audiotapes and CDs	<ul style="list-style-type: none"> recordings of cases, conversations, interviews as: <ul style="list-style-type: none"> supplements to print or computer-based self-study formats stimulus materials for group discussions models for skill improvement (e.g., counseling skills)
Videotapes and DVDs	<ul style="list-style-type: none"> demonstration of procedures, behavior to be modeled, case scenarios followed by practice and problem-solving/group discussion videotaping and playback for feedback on performance of trainers and counselors (requires camera as well as video playback equipment)
Radio <ul style="list-style-type: none"> regular broadcast radio interactive radio instruction (through broadcast radio or shortwave radio) 	<ul style="list-style-type: none"> convey basic information supplemented by print-based exercises, hands-on practice or instructor-led training interactive radio for seeking and giving advice
Audio-conferencing (audio-only linkages between instructor and learners by telephone line, satellite or internet)	<ul style="list-style-type: none"> lecture to include interaction with dispersed trainees at remote locations supplemented by print-based or audiovisual materials (e.g., slides) for increased participation and practice
Video-conferencing, computer conferencing (audio/video linkages between instructor and learners by telephone line, satellite or internet)	<ul style="list-style-type: none"> illustrated lecture to include interaction with dispersed trainees at remote locations supplemented by print-based or audiovisual materials (e.g., slides, videos) for increased participation and practice
Computer-based training, Internet-based training (on-line learning, e-learning)	<ul style="list-style-type: none"> self-paced learning as primary mode or combined with instructor-led training non-clinical training for computer literates (e.g., management training) practice for diagnostic reasoning combined with email, on-line discussion groups, access to other on-line resources for learning, information and advice

3. Select the **learning approach or approaches** that will be most effective and efficient for supporting the learning objectives and activities.

Generally, learning interventions fall into one of **five overall learning approaches**.

These are:

- Classroom-based learning (with or without a skills/clinical practicum)
- Distance learning
- On-the-job learning
- Independent study or self-study
- Blended learning (combining several of the above approaches).

Consider the points below in determining the overall approach.

- the type of skills and knowledge to be learned and how they will be evaluated and the activities selected for learning
- the characteristics of the learners and their work setting
- the resources, constraints and requirements for the learning intervention (e.g., if a learning intervention must fit into a standard refresher training course; if resources are not adequate to develop and administer an electronic form of distance learning or self-study).

Select the most appropriate approach based on whether it allows for all of the learning activities and whether it allows for enough practice and feedback to learn. Resource limitations and whether other interventions are planned also affect the selection of an approach to training.

Box 16, on page 49, provides guidance about approaches to consider depending on the types of activities you have chosen to help learners master the various learning objectives. If you select a variety of learning activities, a combination of approaches may be appropriate and feasible given the available resources. In such cases, a “blended learning approach” may be best.

Box 16: Selecting learning approaches

<i>Learning Approach</i>	<i>When to Use Learning Approach</i>
Classroom-based learning (with or without skills practicum)	when learning requires significant face-to-face interaction with groups and/or instructors (e.g., discussion, role play, extensive client contact requiring supervision)
Distance learning (individual or peer group learning)	when learning and communication can occur in any location without extensive face-to-face contact with instructor or learning peers; can be based on print or electronic media
On-the-Job learning (whole-site or individual)	when immediate application of learning to job performance is a priority; when the job site is equipped for learning (e.g., trained trainers/preceptors, adequate clients and opportunity for skills practice, training materials and space)
Independent study or self-study	when learner can facilitate own learning with little or no input from instructor or facilitator; when learner needs or wants to work at her/his own pace
Blended learning (two or more of the above approaches)	when types of learning objectives vary widely and are best facilitated by a variety of approaches that can efficiently use existing systems and resources

4. Based on information gathered and decisions made during the previous steps, create a detailed **instructional strategy** that describes how the intervention will be designed, implemented and evaluated. (See Box 17, below.)

Box 17: Components of an instructional strategy

- 1. Instructional program overview** (see Tool #10) includes a program description, learning approach, learning goal(s) and objectives, learner selection criteria, types of learning and assessment methods, activities and materials, duration/course schedule.
Depending on the scale of the learning intervention, you may also need:
- 2. Selection criteria and orientation plan for persons needed to implement the training** (e.g., coordinators/managers, trainers, instructors, preceptors, facilitators and evaluators).
- 3. The training/learning materials and resources needed** (e.g., for learners, coordinators/managers, supervisors, trainers, instructors, preceptors, facilitators and evaluators).
- 4. An assessment and evaluation plan** that describes monitoring and evaluation activities for the learning intervention, including a list of indicators and a description of the types of data collection instruments. (See Step 12 and Tool 14.)
- 5. A training management and implementation plan** that includes an overall work plan and timeline for the intervention development and implementation and a description of the roles and responsibilities and the resources required.

Helpful Hints

- Do not select activities, materials or approaches just because they are familiar or just because they seem innovative or entertaining. Instead, stay focused on the activities and materials needed to achieve the learning objectives and consider approaches that are sustainable in the particular situation.
- It is helpful to make decisions about the strategy at a meeting of the design team. This allows everyone to understand the decisions that have been made, to discuss the various options for the learning intervention and plan to implement the strategy.
- An instructional strategy should consider what happens before, during and after the learning intervention is completed. Ensuring the transfer of learning¹⁰ from a training situation where learners show they CAN PERFORM to a job situation where they actually DO PERFORM requires a coordinated effort. In many situations, additional interventions are needed to ensure job performance improves.
- If possible, it is advisable to check with one or two key stakeholders to make sure the approach is feasible, affordable and practical in the given setting.

¹⁰ See *Transfer of Learning: a guide for strengthening the performance of health care workers*. Available at: http://www.intrahealth.org/index.php?option=com_content&task=view&id=70&Itemid=128

Tool 10: Instructional Program Overview

Program Description

Goals

Learning Objectives

Intended Learners (prerequisite skills and knowledge, selection criteria)

Training/Learning Methods

Learning Materials

Evaluation Methods

Learners

Course Duration

Suggested Course Composition

(Number of learners, trainers/facilitators/preceptors, supervisors, managers, etc.)

Step 9: Develop, pre-test and revise lessons, learning activities, materials

This step prepares the plans and materials needed to carry out the learning intervention.

Process

Use Tool #11 or #12 *Lesson Plan Formats* to develop lesson plans.

1. Identify **existing materials** that you can use as references while developing or implementing the learning intervention. Research print materials and the internet for useful references and resources. Check the following sources:

- Standards and guidelines at the national level first (if they exist and are up-to-date) and from international standard setting bodies, such as the World Health Organization
- Documents from medical professional associations
- Published curricula and journals
- Materials available from reputable websites
- Materials that have been used with similar job responsibilities or competencies and with similar learners, especially if these materials are available in adaptable formats.

Check with experts or national resource persons working with you to make sure the **resources are up-to-date and appropriate to the situation**. Often resources used earlier to identify the essential skills and knowledge can be used to develop the materials.

Sometimes existing materials can be used either as they are, or with minor adaptations. However, **if major adaptations are needed, it may be more practical to start from scratch**. Even then, portions of existing materials can be used (e.g., a section from a book, illustrations or charts) or adapted (e.g., discussion questions, slides, case studies, role plays or checklists) if the copyright allows this. Be cautious about using materials that are not appropriate for the learners and their work setting and using activities that do not meet the requirements of your learning objectives.

2. Develop the **lesson plans**. A lesson plan is a set of instructions similar to a “road map” for conducting the learning intervention and enabling the learners to meet the learning objectives. Usually lesson plans will need to be developed specifically to meet the training requirements.

The lesson plan should be **written for the person who coordinates the learning intervention**. In other words, if the approach calls for a trainer to lead or coordinate the intervention (e.g., group training), the lesson plan should be written for the trainer. Write the lesson plan for the learner if he/she is in charge of his/her own learning (e.g., self-directed learning). Some interventions may require a lesson plan or set of instructions for the instructor, the learners, a supervisor and a practicum advisor for the same set of coordinated activities (e.g., site-based training).

The *Experiential Learning Cycle* can be used **to structure the lesson plan in a way that encourages learners to apply what they learn** when they are working. (See Box 18, page 58.)

Typically, the lesson plan should include:

- An **introduction** that describes why the lesson is needed. The introduction should describe the job task and the skills and knowledge that are required to perform it. The introduction covers “what’s in it for the learners.”
- The **learning objectives**
- A **schedule** or list showing the order in which the activities should be done
- The **assessment strategy** for each objective
- A list of **resources required** and where they are located
- Description of **advance preparation**
- A detailed **description of each activity** (what the learners and trainers need to do to achieve the objectives)
- The **time** each activity should take.

In general, **keep lesson plans short and format them so the main steps stand out**. Learners and trainers are more likely to follow the plan if the lessons plan is short and easy to read. (See Tools 11 and 12 for sample lesson plan formats.)

3. Make a **list and develop or obtain the learning materials** that are needed for each activity and lesson. Remember that materials may be needed for trainers, learners, clinical preceptors, training coordinators, managers, supervisors and evaluators.

Some of the materials that may be needed are:

- clinical guidelines, reference manual or study guide
- illustrations or diagrams
- pre-/post-tests, questionnaires, observation checklists
- a slide presentation for a lecture

- a computer-based simulation for skills practice
- role plays
- case studies
- job aids
- anatomical models, clinical equipment and supplies
- reporting tools and processes for inputting information into a database
- an orientation for facilitators, tutor/mentors and/or supervisors/managers (see Step 10)
- an action plan to help ensure transfer of learning (see Step 11)
- assessment and evaluation plans and related tools (detailing indicators, intended impact and how results will be used for decision-making and subsequent planning) (see Step 12).

These materials may be organized, along with the Instructional Program Overview from the instructional strategy, into a learning package consisting of

- Reference manual
 - Trainer/facilitator/supervisor guide
 - Learner's guide
 - Audiovisuals, equipment, supplies or anatomical models
 - Supporting reference materials and job aids.
4. Develop the **learning assessment instruments** (skills checklists, written tests, questionnaires, etc.). Assessments should be written according to the plan for assessments made in Step 7.

Knowledge assessment tests

- Write **at least one assessment item for each knowledge objective**. More than one item may be necessary for learning objectives that are considered more important or cover more information than other objectives. Ensure that each item matches the learning objective and provides learners with the opportunity to meet the criteria necessary to demonstrate achievement of the objective.
- **Sequencing:** Once you have written your test items, there are generally two ways to sequence them. Group items:
 - that are similar in format—e.g., put all items of the same type (multiple choice, case study, true/false) together
 - based on the objective—e.g., all items that correspond to a particular set of objectives are together.
- **Evaluating tests:** In order to maximize resources, pilot test the assessment when you are pre-testing your learning materials. Observe pilot test participants and ask for their feedback about:

- **Clarity**—Are the directions and items simple and easy to understand?
- **Realistic**—Do the items ask for answers or observe behaviors that are reasonably close to the way the information or skill will be used on the job? Is it possible to observe the learner performing skills described in the objective? (e.g., are materials and equipment available; are clients or patients available at the time when the skill is to be observed?)
- **Difficulty**—Do items require learners to use what they know? Can all learners who have learned the skill or knowledge get the item right?
- **Clear (not tricky) Format**—Do learners have to guess or use a process of elimination? Assessment items that include false statements must be written very carefully. They can easily become too tricky.

Multiple choice questions can be tricky. When writing multiple choice questions, make sure all possible responses are reasonable. Avoid negative expressions and words like “except.” (e.g., Which of the following answers is NOT a danger sign?)

When reviewing questions, check carefully and consider rewording tricky questions or using another type of question. In some situations, a multiple choice question can be replaced by several True/False questions or a short answer question).

- **Reliability and validity:** Tests should be valid and reliable.

Valid tests measure what they were designed to assess.

Reliable tests are those that can be used repeatedly with different groups of learners by different evaluators and will consistently measure what they were designed to assess.

Testing with content and evaluation experts can help determine validity. You can help determine reliability by pilot testing with a representative sample of your intended learners.

- **Cut-off scores** that determine whether learners pass or fail should be set based on how critical the skills and knowledge are to health and safety. National standards may also determine cut-off scores. When setting a cut-off score, make sure that the score is set to separate those who have critical skills and knowledge from those who have not yet achieved an adequate level of skills and knowledge. Eliminating unnecessary information or tricky questions helps make sure that a cut-off score is meaningful.

Skills assessment instruments

- Assessment of skills competency requires observation in real situations or simulation if there are no clients. Develop **skills checklists** to objectively observe and assess performance of skills or procedures.
- Ensure that skills checklists contain the **sequenced steps** required to perform a procedure in a standardized way, along with instructions and a **rating scale** to determine the level of competency on each step. Clinical experts must agree that the skills checklists represent the standard way of performing the procedure or are based on the national service protocols if available and up-to-date.

- Skills checklists with more detailed steps can also be used by learners as *learning guides*. They could also be used by preceptors during practicum training.

5. Get feedback on the draft materials and revise them.

Reviewers can include subject matter experts, instructional designers/media specialists, people familiar with the learner group, potential learners and users, stakeholders and funding/sponsoring organizations. Develop processes and tools to collect targeted feedback from reviewers.

Sometimes the changes suggested by internal reviewers are not appropriate for the intervention or the stated learning objectives. **Be especially careful not to add learning activities and content that are not directly related to the learning objectives.**

6. Pre-test the materials with persons who represent the intended users of the materials when a good draft is available.

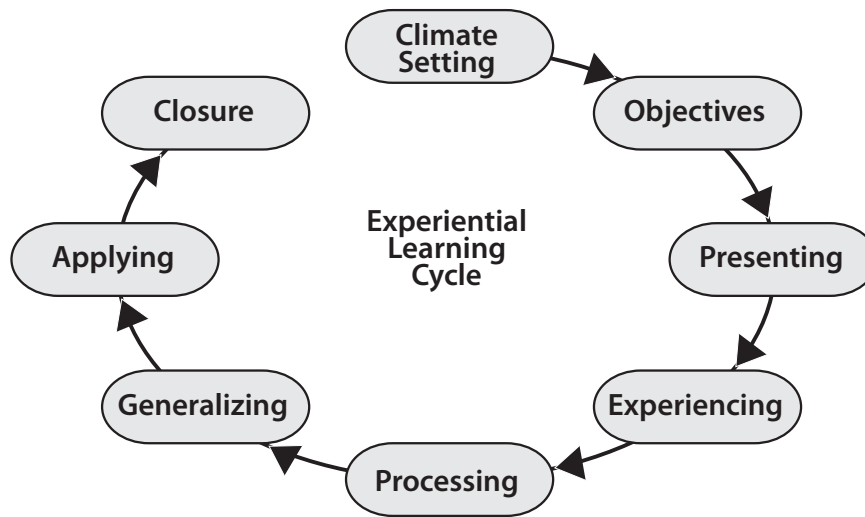
- **Plan** how (develop tools) to collect user comments and suggestions about readability, usability and applicability.
- **Select four or five persons** who represent the user group. These may include: trainers, learners, supervisors and other stakeholders. Make sure the group represents variation in the learners the intervention is developed for.
- **Carry out the activities and use materials** the way final materials will be used, or as close as possible to it.
- **Take detailed notes** about difficulties, misunderstandings and comments.
- Use evaluation instruments to **collect specific user comments and suggestions**; ask users to complete questionnaires, interview users either individually or in a focus group using a set of questions that address particular indicators; explore and understand any suggestions that users share.
- **Make changes suggested by the users.** Consider user suggestions and criticism very carefully, checking with resource persons, experts and stakeholders as needed. Incorporate changes that are feasible and in keeping with the learning objectives. Sometimes users can help work through problems with the materials or the activities and help find practical solutions. Keep in mind that not all user suggestions are appropriate and feasible.

Box 18: The experiential learning cycle

Derived from evidence-based principles of learning, the Experiential Learning Cycle provides practical guidance about designing lessons. Training and learning that is designed in accordance with the Experiential Learning Cycle:

- 1) is linked to real-life
- 2) encourages the learners to express their feelings and opinions and draw on their own prior knowledge and experience
- 3) integrates evaluation methods that provide immediate feedback to learners about their progress.

The guidance in the Experiential Learning Cycle applies to both the intervention as a whole and to the individual lessons and activities. The principles described in the Experiential Learning Cycle are applicable regardless of the learning approaches used.

**Step 1. Climate Setting/Introduction**

- Stimulates interest and curiosity. Prompts learners to begin thinking about the subject that is being introduced.
- Helps learners understand why the subject is important to them, how it will be useful, and what relevant experience and skills they bring to the learning intervention as a whole or to a specific learning activity. Information collected during *Learning for Performance* Step 3 is useful in tailoring learning activities to closely match the learners' interests and needs. Recognition of relevant experience, skills and accomplishments can be highly motivating for learners, especially when it's woven into subsequent elements of the learning experience.

Step 2. Objectives

- Tells the learners what they will be able to do as a result of participating in the learning intervention or activity. At this stage, learners should develop a clear understanding of how the learning objectives relate to performance expectations at the work site.
- Gives learners an opportunity to relate the objectives of the learning intervention or activity to their individual job requirements and work site conditions. Links learning objectives to previous sessions.

Box 18: The experiential learning cycle (continued)**Step 3. Interactive Presentation**

- Presents content using relevant examples; poses questions to learners; supplements explanations with visual aids and summaries to highlight key points.
- Provides a framework for learners—either a theory or a model—that becomes the basis for the experience that follows.

Step 4. Experiencing

- Provides an opportunity to encounter a situation derived from the objective of the training (e.g., skit/drama, role plays, case studies, critical incident, video, small group task/exercise, site/field visit using a checklist to observe a demonstration of procedures). Becomes the common source of learning that learners will share and is the event that will be analyzed during the rest of the lesson.
- Provides learners an opportunity to practice what they have learned in an actual or simulated work setting.

Step 5. Processing/Getting Immediate Reactions

- Solicits reactions from the learners about their individual experiences and challenges them to think about what they learned.
- Gives learners an opportunity to reflect on their accomplishments and receive feedback on their progress.

Step 6. Generalizing

- Learners link what they have learned to the session objectives.
- Learners identify key learning.

Step 7. Applying

- Using the insights and conclusions gained from the previous steps, the learners identify and share how:
 - the learning applies to actual work situations
 - they will use the learning in their work situations to close the performance gap.
- Encourages learners to develop and use an action plan and make specific arrangements for how new skills and knowledge will be used.
- Answers the learners' questions: "Now what?" and "How can I use what I learned?"
- Encourages the learners to consider the implications of what happens in their work situation if they do not effectively apply what they have learned, i.e., consequences of performance errors.

Step 8. Closure

- Summarizes the events of the learning intervention or activity.
- Links training events to job-related objectives and determines if objectives have been met.
- Links learning objective to the rest of learning intervention, especially upcoming sessions.
- Thanks learners for their participation and contribution. Ensures them of your availability for any other questions after the session.

Adapted from: Training Resources Group, Inc. and University Associates (see References and Resources)

Helpful Hints

- Ensure that the lesson plan, activities and materials:
 - Hold the learners’ attention from the beginning and throughout
 - Use a variety of teaching methods
 - Are realistic. Opportunities to practice in realistic settings and to work with real-life problems make the lesson more relevant to the learners.
 - Give frequent feedback; evaluate progress regularly. Do not assume that “covering the subject” means everyone has learned it. Achieving the objectives will take some learners longer than others.
- Write/produce learning materials that are:
 - applicable to the stated objectives
 - current and accurate
 - easy to understand
 - well-organized
 - consistent and properly sequenced so that they are easy to use
 - appropriate for and appealing to the intended users.

There are many published resources that provide design guidance. (See References and Resources.)

- Materials development and duplication can be very expensive. Be creative about using existing materials (national procedures if available and up-to-date, international clinical procedures, other reference manuals). Do not create materials that are not essential. Examples:
 - Use an existing videotape of a clinical procedure with the sound turned off if the demonstration is correct but the language or narration is not appropriate. The trainer can narrate instead.
 - Have learners use plain paper rather than creating handouts for simple activities.
 - For information that may change, consider using word-processed documents duplicated in small numbers.
 - Create materials that can be adapted or updated locally. Avoid using computer software that is not available locally or that requires expertise that is not generally available locally.

Tool 12: Lesson Plan (alternative format)

Session Objectives	At the end of the session, participants will be able to:
Time	
Trainer Preparation	
Facilitation Steps	Step 1. Step 2. Step 3.
Evaluation/ Assessment	
Handouts/ Activity Sheets	
Additional Reading	

Step 10: Prepare for implementation

This step begins with reviewing the Instructional Strategy (see Box 17, page 49) that you developed in Step 8. Now it is time to **prepare for implementation** of the learning intervention according to the instructional strategy.

Process

1. **Make a plan and timeline for implementation.** The implementation plan may include:
 - **roles and responsibilities:** what will persons at various levels do to organize, implement and support the learning intervention?
 - **resources needed:** what training materials, references, equipment, supplies, audiovisuals and other resources are needed for the implementation?
 - **orientation:** how will decision-makers, managers, supervisors and others be informed about the learning intervention and their roles and responsibilities?
 - **facilitator training:** how will faculty, tutors, instructors, trainers, clinical preceptors and other facilitators of the learning process be **selected** and then **trained**? Facilitators may need training in technical content and also how they are expected to carry out the intervention (e.g., training skills, use of materials, orientation to the training approach).
 - **training site preparation and maintenance:** how will classrooms, clinical facilities or other training sites be selected, prepared and equipped?
 - **monitoring:** how will the learning intervention and learners be monitored to ensure the implementation is going smoothly and to identify any adjustments that may need to be made during the learning intervention?
 - **follow-up:** how will learners be followed-up to ensure transfer of learning?
 - **budget:** how will the funding (see information collected in Step 3) be managed?
2. **Obtain needed learning resources.** Learning resources may include printed materials, equipment, supplies, audiovisuals, anatomic models and other resources for carrying out the learning intervention. (See also Step 9, #3.)
3. **Orient, solicit input and generate commitment** from decision-makers, managers and supervisors. Consider including a stakeholder orientation about:
 - the learning intervention
 - the implementation plan and timeline
 - their roles and responsibilities in supporting the learning intervention, learners and the transfer of learning. (See Box 19, page 65.)

4. Select and train facilitators (e.g., faculty, tutors, instructors, trainers, clinical preceptors). Identify and apply facilitator selection criteria (e.g., proficient providers, commitment/positive attitude toward learners and clients, good interpersonal skills). Training of facilitators should include:

- *Skills and knowledge in the subject matter* they will be training others to perform
- *Training skills* they need to impart the technical content to their learners:

- *competency-based training techniques and trainer facilitation skills*

Examples include experiential learning techniques, effective communication and presentation skills, behavior modeling, coaching, skills assessment, supportive feedback, practicing skills in simulated environment before practicing with clients, assessment of competency.

- *transfer of learning to on-the-job performance*

“Transfer of learning” is being able to apply learned skills and knowledge in the work setting. Transfer of learning can be facilitated by a series of activities before, during and after the learning intervention, as illustrated in Box 19: The transfer of learning matrix, page 65. The more items in the matrix that can be implemented, the stronger the transfer of learning operation will be. These activities can be adapted for any type of learning intervention.

- *use of the learning materials*

The instructors and trainers will need to be oriented to the new learning materials and how to use them. The more familiar they are with the learning process, activities and materials, the better they will be able to help learners achieve the learning objectives, modifying the curriculum as needed for their learners.

5. Select, prepare and equip learning facilities.

Selection of *clinical* training sites is usually based on the following criteria:

- sufficient client load for clinical skills practice
- adequate space to accommodate the learners
- sufficient supplies and equipment
- receptive staff prepared to receive the learners
- application of current service guidelines during practice
- similar facility/level of care as where learners will practice
- availability of meals and lodging if necessary.

Sites for *classroom* training and a *skills development lab* should have:

- adequate space and furniture to allow for varying seating arrangements for interactive lectures, group work, simulated skills practice, etc.
- sufficient supplies and equipment in working order
- proper ventilation and adequate lighting.

Preparation of learning facilities involves:

- bringing sites in line with the key criteria above regarding space, supplies and equipment, if necessary
- site-based orientation of administrative and clinical staff.

Helpful Hints

- Effective coordination between the didactic and clinical practicum facilitators will help ensure the linkage between learning the essential knowledge and the application of skills in the work setting. For example, this coordination can be achieved through training didactic and clinical trainers together at the same time, establishing regular meetings between them to review learners' progress and/or having tutors/faculty accompany learners to clinical practicum sites.
- Avoid having many trainers or guest speakers who come and go during the learning intervention and do not have responsibility for following up the learners' achievement. Whenever possible, arrange for trainers/instructors to remain consistent throughout the learning intervention.

Key Companion Resources for Steps 10 and 11 of Learning for Performance

Transfer of Learning: a guide for strengthening the performance of health care workers. Available:

http://www.intrahealth.org/index.php?option=com_content&task=view&id=70&Itemid=128

Training Works! What you need to know about managing, designing, delivering and evaluating group-based training.

Available: <http://www.intrahealth.org/images/stories/pubs/trainingworks.pdf>

Preservice Implementation Guide: a process for strengthening preservice education.

Available: <http://www.jhpiego.org/resources/pubs/psguide/psimpdgen.pdf>

Effective Teaching: a guide for educating healthcare providers.

Available: http://www.jhpiego.org/resources/pubs/effteach/EffTeach_man.pdf

Two excellent resources on how to train trainers in competency-based training techniques are available from JHPIEGO. <http://www.jhpiego.org>

Clinical Training Skills for Reproductive Health Professionals

Advanced Training Skills for Reproductive Health Professionals

Box 19: The transfer of learning matrix

	Before Learning	During Learning	After Learning
Supervisors	<ul style="list-style-type: none"> • Understand the performance need • Participate in any additional assessments required for training • Influence selection of learners • Communicate with trainers about the learning intervention • Help learners create a preliminary action plan • Support and encourage learners 	<ul style="list-style-type: none"> • Participate in or observe training • Protect learners from interruptions • Plan post-training debriefing • Provide supplies and space and schedule opportunities for learners to practice 	<ul style="list-style-type: none"> • Monitor progress of action plans with learners and revise as needed • Conduct post-training debriefing with learners and co-workers • Be a coach and role model—provide encouragement and feedback • Evaluate learners’ performance • Stay in contact with trainers
Trainers	<ul style="list-style-type: none"> • Validate and supplement the results of the performance needs assessment • Use instructional design and learning principles to develop or adapt the course • Send the course syllabus, objectives and pre-course learning activities in advance 	<ul style="list-style-type: none"> • Provide work-related exercises and appropriate job aids • Give immediate and clear feedback • Help learners develop realistic action plans • Conduct training evaluations 	<ul style="list-style-type: none"> • Conduct follow-up activities in a timely manner • Help strengthen supervisors’ skills • Facilitate review of action plans with supervisors and learners • Share observations with supervisors and learners • Maintain communication with supervisors and learners
Learners	<ul style="list-style-type: none"> • Participate in needs assessments and planning • Review course objectives and expectations and prepare preliminary action plans • Begin establishing a support network • Complete pre-course learning activities 	<ul style="list-style-type: none"> • Participate actively in the course • Develop realistic action plans for transferring learning 	<ul style="list-style-type: none"> • Meet with supervisor to review action plan • Apply new skills and implement action plan • Use job aids • Network with other learners and trainers for support • Monitor your own performance
Co-workers and others	<ul style="list-style-type: none"> • Participate in needs assessments and discussions of the training’s intended impact • Ask learners to bring back key learning points to share with the work group 	<ul style="list-style-type: none"> • Complete learners’ reassigned work duties • Participate in learning exercises at the request of learners 	<ul style="list-style-type: none"> • Be supportive of learners’ accomplishments

Adapted from: PRIME II and JHPIEGO Corporation. *Transfer of learning: a guide for strengthening the performance of health care workers*. Chapel Hill, NC: Intrahealth, 2002. Available: http://www.intrahealth.org/index.php?option=com_content&task=view&id=70&Itemid=128

Step 11: Implement and monitor learning and logistics

Now that you have developed or obtained the instructional materials and equipment, oriented and prepared all persons responsible for implementing and supporting the learning intervention and prepared the learning sites, the trainers and facilitators should be ready to carry out the learning intervention.

The products of all your careful planning up to this point should be preserved by careful monitoring of the implementation to ensure the overall effectiveness of the learning intervention.

Process

Use Tool #13 *Action Plan for Transfer of Learning* to document how the learner will apply new skill and knowledge competencies on the job, and to guide the training follow-up and supervisory support after the learning intervention is completed. (See #4 below.)

1. Use the instructional program overview, lesson plans, learning activities and materials developed during Steps 8 and 9 to **guide the implementation**.
2. Use the monitoring and evaluation plan and instruments (see Step 12) to **monitor the implementation**. Mentor and support the faculty, tutors, instructors, trainers, clinical preceptors and others as they use the new materials, content and methods to facilitate the learning process. Encourage the learning facilitators to conduct regular in-process review sessions at the end of every day, if possible, to identify what is going well and what needs improvement. Plan for the next day.
3. **Make adjustments**, as necessary, in the content, process and logistics of instruction in order to support the training team and learners, and to improve learner achievement.
4. Ensure that activities to **support the transfer of learning** are incorporated into the implementation. For example:
 - Ask each learner to keep a learning diary with lessons learned and their application to actual work situations.
 - Have each learner develop and use an **Action Plan**. This is an effective way to make sure the transfer of learning process matches the need and context of each learner (see Tool #13). An action plan sets expectations for the learner and helps plan for application and follow-up of new skills and knowledge.

5. Provide follow-up support for learners and supervisors after the learning intervention. Follow-up visits help ensure the transfer of learning, identify and solve problems and strengthen supervisors' skills in supporting learners' performance on the job.¹¹ Examples of activities for follow-up support include:

- Sharing training outcomes and recommendations and learners' action plans with their supervisors.
- Reviewing the learners' progress on their action plans and helping them work with their supervisors to reinforce learning and improve their job performance.
- Making sure that other performance factors and working conditions are in place.

Helpful Hints

- Encourage and arrange for sharing of feedback and experience among all those involved in a learning intervention. Regular meetings among preceptors or practicum facilitators during the process of training are helpful as is a meeting to receive feedback from the learners at the end of a course and to plan how useful feedback can be incorporated in future training courses.
- Check on the status of the HRH strategies and performance support interventions that you documented in Tool #2 *HRH Context Worksheet* and Tool #3 *Performance Factors Worksheet*. Monitor the progress on these interventions and coordinate with the intervention leaders to make sure the interventions support and contribute to the success of your learning intervention.
- Sometimes the first implementation of the intervention can serve as a pilot-test of a promising new approach (see also Step 12). If a design is new, it may be helpful to roll out the implementation gradually (e.g., in one location and in small stages) so that the design team can make adjustments as needed. Other times the intervention may be an adaptation of an intervention that has already proven successful. In this case, a pilot-test may focus on testing only the new or adapted elements. Occasionally, resources may not be available to pilot-test the intervention.

¹¹ See Marquez L, Kean L. *Making supervision supportive and sustainable: new approaches to old problems*. MAQ Paper No. 4. Supplement to Population Reports, Volume XXX, No. 4, 2002. Available: http://www.maqweb.org/iudtoolkit/service_delivery/maqpaperonsupervision.pdf

Tool 13: Sample Action Plan for Transfer of Learning

Action Plan

Learner: _____ Course: _____ Date: _____

My Support Team/ Partners:

Supervisor:
Trainer:
Co-worker(s):

Specific Areas to Improve: (Think about distinct accomplishments and activities to be achieved.)

Issues to Address: (Describe the barriers that must be eliminated or reduced and how this will be done.)

Detailed Specific Actions (in sequence)

Be sure to include regular progress reviews with the support team as a part of the specific actions.

Responsible person(s)

Resources

Date/ Time*

Changes to look for

Step 1

Step 2

Step 3

Step 4

Step 5

Step 6

Step 7

Step 8

Step 9

Step 10

**establish set day and time for ongoing activities*

Commitment of Support Team/Partners:

I support the action plan described above and will complete the actions assigned to me. If I am unable to complete an activity, I will help make arrangements to modify the plan accordingly.

Signature of learner:

Date:

Signature of supervisor:

Signature of trainer:

Signatures of co-workers:

Step 12: Assess effectiveness of the learning intervention and revise

Monitoring and evaluation are key elements in the development, implementation and ultimate success of a learning intervention. Developers analyze data collected during monitoring and evaluation activities and use it **to make decisions about how to improve the effectiveness and efficiency of the learning intervention.**

Monitoring is an ongoing process of collecting information about how a learning intervention is being implemented. Monitoring can determine whether:

- the learning materials and content are useful and applicable
- the learning facilities are adequately prepared and equipped
- the learning methods and approach are appropriate and acceptable
- the instructors and trainers are adequately prepared and supported
- learners are adequately supported and have achieved the necessary skills and knowledge to the specified standards for competency.

Evaluation takes into account learner satisfaction and achievement at the end of a learning intervention and measures the overall effects of the learning intervention after implementation. Evaluations can determine whether:

- learners, learning facilitators, managers and others are satisfied with the learning intervention
- the intervention itself is judged as appropriate and practical and is sustained
- learners have achieved the necessary skills and knowledge to the specified standards for competency
- intended changes in performance actually occurred and are being sustained at the worksite (e.g., learners are performing as desired)
- the intended changes in performance had the intended impact (e.g., improved services to clients)
- costs and results are in balance.

If an intervention is complex, developers frequently conduct a pilot-test. A pilot-test is an experiment performed on a small scale that allows instructional developers to observe how various components of a learning intervention, such as the learner support system, function before going to full scale. If the scale of the intervention is small (e.g., adding a new module to an existing curriculum in a well-functioning structure) a pilot-test may not be necessary; regular monitoring and evaluation during the actual implementation may be sufficient.

Process

Use Tool #14 *Monitoring and Evaluation Plan* to plan how the learning intervention will be monitored and evaluated, identify indicators and develop instruments and a schedule for the monitoring and evaluation (M&E) plan.

1. **Create a monitoring and evaluation plan.** An M&E plan is a component of the instructional strategy (see Box 17, page 49) and should include:
 - *What to monitor and evaluate:* descriptions of indicators that will be used to measure attainment of the intervention objectives (e.g., learner achievement, usability of materials/tools, acceptability of the approach, costs of activities, job performance)
 - *How and where:* a description of monitoring and evaluation activities to be conducted during and after implementation (including plans for data collection, the instruments for collecting data, the data analysis and intervention revisions)
 - *When:* schedule for the monitoring and evaluation activities
 - *Who:* roles/responsibilities of the evaluation and implementation team
 - *What resources:* resources required to conduct evaluation activities (e.g., the equipment and tools to be used, computer applications for analyzing the data, mechanism for sharing data, funding).

Many of the same indicators, instruments and data that are used for monitoring can also be used for evaluation. All indicators included on assessments and evaluations should inform a process and improve decision-making, or they should not be used. Avoid the temptation to collect monitoring and evaluation data and “go fishing” for interesting results.

2. **Prepare** to carry out the monitoring and evaluation plan:
 - develop instruments to collect data
 - train the monitoring and evaluation team (including trainers/instructors, data collectors, data analyzers) to ensure standardized scoring and observation rating
 - assemble the materials and resources required.
3. **Conduct the evaluation** with users (including trainers/instructors, preceptors, learners/students, supervisors and other stakeholders).
 - observe the intervention activities, take notes about the process: challenges encountered by users, logistical issues
 - use evaluation instruments to collect user reactions and suggestions; ask users to complete questionnaires; interview the users either individually or in a focus group with a set of questions that address particular indicators; explore and understand suggestions shared by users
 - administer pre-/post-tests (skills and knowledge) to measure learner achievement and ensure that the learning intervention is effective

4. **Analyze** your observations, the comments and feedback offered by the users and the learners' achievements on pre-/post-tests. As indicated, **make adjustments** to the strategy, activities, materials, roles and responsibilities, procedures and evaluation instruments.
5. If the evaluation plan includes assessing performance on the job or long-term impact on service delivery indicators, **conduct follow-up evaluation activities** as planned.

Note: If this type of evaluation is planned, developers must have determined whether they have the necessary resources to conduct the evaluation. If non-training interventions were also implemented, the follow-up evaluation may include indicators specific to all the interventions.

Helpful Hints

- If conducting a pilot-test, ensure that all participants understand that you are evaluating the learning activities and materials and not their performance.
- When using distance and self-study approaches, it is especially important for learners to develop the ability to monitor and evaluate their own performance against the “desired performance” and figure out how to change their behavior accordingly. Depending on the learners, developing this ability may be one of the learning objectives in the intervention.
- When using distance and self-study approaches for the first time (see Step 8, #3: Select the learning approach, and Box 16: Selecting learning approaches, page 49), it is especially important to evaluate components of the intervention that are critical to the success of these approaches (e.g., reliability of equipment, readability/understandability/usability of materials, feasibility of conducting site visits for mentoring, appropriateness of peer interaction components, usefulness of time management tools and other learner support components).
- Depending on the number and types of interventions developed and implemented to fix a performance gap, it may be difficult to isolate the contributions of the learning intervention to overall success. Future implementations may provide opportunities to isolate intervention components to determine which are responsible for which results.
- Pre- and post-measurements of specific indicators, and possibly experimental and control groups, are necessary to demonstrate an effect that can be attributed to the intervention. For example, to show changes in the quality of services offered by providers or changes in client access to services, it may be possible to compare service delivery records at the facility before and after the intervention, compare pre-/post-interviews with clients about satisfaction with a provider's performance, and/or compare pre-/post-observations of learners using checklists at their job sites or interviews with their supervisors.

Tool 14: Monitoring and Evaluation Plan

Title of Learning Intervention _____

<i>What to monitor/ evaluate (indicators)</i>	<i>How (activities/methods)</i>	<i>Where</i>	<i>When</i>	<i>By whom</i>	<i>Resources needed</i>

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