

Effective Training Practices

Training is a type of learning intervention that can improve workplace performance and facilitate the introduction of new job responsibilities by improving workers' knowledge, skills and behaviors.

Part of a series of briefs on evidence-based practices, this brief is for program managers who develop and implement programs that include training activities.

Training is an effective tool for improving performance, but it must be conducted with careful attention to the needs of learners, the context in which learners perform and current evidence about what makes training effective. This brief summarizes evidence and best practices for making the most of training interventions. It is designed to help program managers: (1) identify when training is appropriate to introduce a new job responsibility or help improve performance, and (2) ensure that training is effective.

Is Training the Answer?

Before investing time and resources in training, it is important to conduct a performance assessment to be certain that training is the best way to prepare workers for a new responsibility or improve performance that does not meet standards.¹ There are many factors that influence performance and need to be in place to support desired performance.² These factors include:¹⁻³

- Clear job expectations
- Clear and immediate performance feedback
- Adequate physical environment and tools
- Motivation and incentives to perform as expected
- Organizational and administrative support
- Skills and knowledge required to do the job

A thorough performance assessment will identify potential challenges related to these factors. Training is appropriate only when a performance gap is due to a lack of knowledge and skills.* Because performance gaps often have multiple causes, the situation may require several integrated interventions. For example, a training course on a new clinical procedure may be coupled with an exercise to clarify staff roles and responsibilities and improve work-flow procedures.

Focusing on all factors that influence performance helps supervisors and workers ensure that the knowledge and skills acquired in training are applied and maintained in the workplace.² Effective training makes optimal use of resources, maximizes learning, improves performance and, ultimately, improves program outcomes.

Before a Training Intervention

Highly motivated participants and a supportive organization are essential if training is to make a measurable impact on performance.

Learner motivation. Adult learners are internally motivated and that motivation to learn contributes to the success of training. One way to increase learner motivation is to involve training participants and their co-workers in setting goals. This creates a shared vision and

* Note that some tasks are better learned on the job and may not require a training intervention.

investment in the program outcomes. A study in the United States found that the development of agreed-upon learning goals leads to more effective training.⁴ Having agreed-upon goals ensures that the learning is applicable and builds on the participants' experience. Involving learners in goal setting also allows them to fully appreciate the benefits of using the new knowledge and skills, gives them the satisfaction of having more control over the tasks they perform at work, and fosters a sense of belonging — all of which add to their motivation to learn and perform.⁵

Learners are more likely to perceive training as useful when they recognize the need to improve job performance or acquire a new skill and feel that the training will enhance their performance. The expectation — from supervisors, learners and their co-workers — that the training is important and that the skills learned in training will be applied at work also has a positive effect on learner motivation and on the success of training.⁶⁻⁸

Organizational support and commitment. An organization's structure and systems — including policies, procedures and work processes — must be in place and optimized to support the goals of the organization and the specific tasks of individual workers. Training cannot correct performance that results from inadequate or inefficient organizational systems.

Individual learners also look to their organization's commitment to high-quality standards for service delivery and provider performance. In an organization that values high-quality performance, learners are more likely to value the training and to use the new knowledge and skills, leading to improved performance.⁹⁻¹¹

Before implementing training, take time to understand and maximize participant motivation and to ensure that the organization supports the training process and outcomes.

Developing Training

Follow these best practices for developing and implementing effective training.

Set short- and long-term learning goals. The principles of cognitive theory state that goal setting is important for learning.¹² Goals for the training should be based on the gaps in knowledge and skills. It is important to set both short- and long-term goals, as these together are more effective than long-term goals alone¹³ (see box for an example).

Assess learners, the work setting and job tasks. Gather information about learners from performance assessments, interviews, observations and other means.¹⁴ Information to be gathered may include learners' desired outcomes, educational background, work experience, job responsibilities, and language and reading level.³ The work setting assessment should include the supervisory system, available job aids and

equipment, and work processes in all groups affected by the implementation of new skills.¹⁵ Also identify resources and requirements for training, such as certification requirements or available funds.

Set standards for performance. Job responsibilities and tasks should be clear, as should standards for performing those tasks. Standards should include both what to do and the results expected for satisfactory job performance.³ Consult with workers who perform at an expert level to determine standards of practice and to develop checklists for assessing optimal performance. It is advisable to observe an expert performer on the job and note the person's specific behaviors, as skills may be so innate that it is difficult for the expert to describe each step.

Develop learning objectives. Develop learning objectives based on the essential skills and knowledge for each job task. Learning objectives define the performance that learners will demonstrate as part of, or resulting from, the training.³

Determine learning content. The training content should be based on the identified skills and knowledge gaps of the learners.¹¹ Include only the information or skills necessary to achieve desired job performance. Too much information impairs long-term retention.¹⁶ Training effectiveness decreases when learners are overwhelmed with excessive content that is not immediately relevant or applicable.¹¹ Training content should build on current knowledge and experience rather than repetition of what learners already know.^{17,18}

Choose appropriate trainers. Choose experienced trainers who have a grounding in adult education techniques and a combination of skills and experiences that match the skills and knowledge gaps you are addressing. Determine whether you need an experienced educator, content experts or a skilled facilitator. You may need someone with a combination of these skills or more than one facilitator.

Setting Goals: Infection Prevention as an Example

Program outcome (long-term goal): Incidence of clinic-based infections will be reduced by at least 20% after one year.

Gap in knowledge of skills

75% of clinic-based health workers cannot perform infection prevention practices to the standard.

Learning goal (short-term)

100% of clinic-based health workers will be able to perform appropriate infection prevention practices according to established standards.

Keep class size in mind. Research shows that class size influences motivation to learn.¹⁹ The number of learners appropriate for a specific training will depend on the learning objectives. For example, a training to address a gap in knowledge can generally accommodate a larger number of participants than a skills-based clinical training.

Gather training resources. Look for existing, evidence-based resources (such as job aids or curricula), especially those that have been evaluated and have yielded positive results.

Use appropriate technology. Use of new technology does not guarantee quality. Training content and design are more important than using the most current technology.¹⁸ The desired learning outcome and the process by which people learn should drive the training method, rather than availability of or familiarity with a method or technology.

Simulate the workplace. Training activities that closely simulate the workplace improve the transfer of learning.¹⁸ Activities should also allow learners to reflect on their previous experience. The structure of training should be based on the prior knowledge of the learners and should help them apply the new knowledge or skill in the context of their past experiences.¹²

Give feedback during training. Training facilitators should provide corrective feedback to learners as they are learning¹⁸ because feedback is tied to future performance. The facilitator

should let learners know clearly whether answers are correct or practice exercises meet the standard.¹²

Evaluate effectiveness. While there is a relationship between favorable reactions to training and positive learning outcomes, the relationship is not strong enough to warrant using learner satisfaction alone as a measure of effective training.²⁰ Evaluation of training should assess what knowledge and skills are gained and whether they are applied in practice.

After a Training Intervention

As important as it is to engage learners and supervisors before the training, it is equally important to support learners on the job after the training.

Supervisor support. Supervisor support has been proven to influence the transfer of learning.^{11, 21} Examples of supportive behavior include supervisors participating in the training, discussing new learning, tying performance improvement to compensation or other rewards, and encouraging learners to use their new skills.¹¹ A post-training debrief can enable learners, co-workers and supervisors to discuss individual or group action plans for using new knowledge and skills. Providing the opportunity to perform the new job tasks as soon as possible is essential.¹¹ Supervisors should also monitor the progress of learners in applying the new skills. This could be informal or part of a formal monitoring and evaluation plan, but progress should be monitored against the knowledge

KEY RESOURCES

Although the resources below are designed for health programs, they include information that can be used in non-health programs.

Learning for Performance: A Guide and Toolkit for Health Worker Training and Education Programs (IntraHealth, 2007). This toolkit provides a systematic process that helps connect learning to specific job responsibilities and competencies. It includes guidance on learning goals, learning objectives and specific activities for meeting those objectives, and evaluating the effectiveness of a specific training. Available at: <http://www.intrahealth.org/page/learning-for-performance>

Transfer of Learning: A Guide to Strengthening the Performance of Health Care Providers (IntraHealth, 2002). This online toolkit provides strategies and techniques that can be used before, during and after training interventions to ensure support for the transfer of knowledge and skills to improve performance on the job. Available at: <http://www.intrahealth.org/tol/>

Performance Improvement Stages, Steps and Tools (IntraHealth, 2002). This online toolkit provides information on performance improvement with tools that can be used for every stage of the performance improvement process, from a performance assessment through monitoring and evaluation. Available at: <http://www.intrahealth.org/sst/>

Effective Teaching: A Guide for Educating Healthcare Providers (World Health Organization and Jhpiego, 2005). This reference manual contains 12 modules on topics such as facilitating group learning, managing clinical practice, and preparing and using knowledge and skills assessments. Available at: <http://www.jhpiego.org/en/node/387>

Programming for Training: A Resource Package for Trainers, Program Managers, and Supervisors of Reproductive Health and Family Planning Programs (U.S. Agency for International Development, The ACQUIRE Project/EngenderHealth, 2008). This resource package provides an overall approach to programming for training, as well as information, methods and tools for designing, developing, planning, implementing and evaluating training. It also provides tools and information for strengthening training systems. Available at: <http://www.acquireproject.org/archive>, click on Training Curricula and Materials, and then Resources.

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or skills gap the training was designed to address. Supervisors and managers should also ensure that the supportive performance factors, such as clear job expectations and an adequate physical environment, are in place (see *Is Training the Answer?* page 1).

Peer support. Peer support also improves training effectiveness, and some studies have found it to be more influential than supervisor support.¹¹ Peer support can be increased by providing continued contact with peer groups formed during training. Peer networks established between training participants both inside and outside of the workplace provide opportunity for continued discussion on training content and can be useful for discussing other performance issues.²² In many settings, where traditional management and supervision systems are not feasible, teams of co-workers can support each other to improve their compliance with new or existing standards at their facilities.²³

For more information about effective training practices, please contact FHI 360 at ResearchUtilization@fhi360.org.

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REFERENCES

- 1 Intrahealth International, PRIME II. Stages, steps and tools. Chapel Hill, NC: Intrahealth International; 2002. Available from: <http://www.intrahealth.org/sst/about.html>.
- 2 O'Driscoll T. Chronicling the emergence of human performance technology. *Performance Improvement*. 2003;42(6):9-22.
- 3 Intrahealth International. Learning for performance: a guide and toolkit for health worker training and education programs. Chapel Hill, NC: Intrahealth International; 2007. Available from: <http://www.intrahealth.org/page/learning-for-performance>.
- 4 Kontoghiorghes C. Factors affecting training effectiveness in the context of the introduction of new technology — a US case study. *Int J Training Dev*. 2001;5(4):248-60.
- 5 Kontoghiorghes C. A holistic approach toward motivation to learn in the workplace. *Performance Improvement Q*. 2001;14(4):45-59.

- 6 Kontoghiorghes C. Predicting motivation to learn and motivation to transfer learning back to the job in a service organization: a new systemic model for training effectiveness. *Performance Improvement Q*. 2002;15(3):114-29.
- 7 Lee K, Pucel DJ. The perceived impacts of supervisor reinforcement and learning objective importance on transfer of training. *Performance Improvement Q*. 1998;11(4):51-61.
- 8 Yelon S, Sheppard L, Sleight D, Ford JK. Intention to transfer: how do autonomous professionals become motivated to use new ideas? *Performance Improvement Q*. 2004;17(2):82-103.
- 9 Colquitt JA, LePine JA, Noe RA. Toward an integrative theory of training motivation: a meta-analytic path analysis of 20 years of research. *J Applied Psychol*. 2000;85(5):678.
- 10 Kontoghiorghes C. Reconceptualizing the learning transfer conceptual framework: empirical validation of a new systemic model. *Int J Training Dev*. 2004;8(3):210-21.
- 11 Burke LA, Hutchins HM. Training transfer: an integrative literature review. *Human Resour Dev Rev*. 2007;6(3):263.
- 12 Knowles MS, Holton EF, Swanson RA. *The adult learner*. New York: Elsevier; 2005.
- 13 Brown TC. Effectiveness of distal and proximal goals as transfer of training interventions: a field experiment. *Human Resour Dev Q*. 2005;16(3):369-87.
- 14 Wilmoth FS, Prigmore C, Bray M. HPT models: an overview of the major models in the field. *Performance Improvement*. 2002;41(8):16-24.
- 15 Romi S, Teichman M. Training programs: a methodological note. *Performance Improvement Q*. 2001;14(4):97-105.
- 16 Rohrer D, Taylor K. The effects of overlearning and distributed practise on the retention of mathematics knowledge. *Applied Cognitive Psychol*. 2006;20(9):1209-24.
- 17 Hannum W. Training myths: false beliefs that limit the efficiency and effectiveness of training solutions, part 1. *Performance Improvement*. 2009;48(2):26-30.
- 18 Hannum W. Training myths: false beliefs that limit training efficiency and effectiveness, part 2. *Performance Improvement*. 2009;48(6):25-9.
- 19 Brown KG, Rietz TA, Sugrue B. The effects of videoconferencing, class size, and learner characteristics on training outcomes. *Performance Improvement Q*. 2005;18(1):59-82.
- 20 Clark R. *Evidence-based training methods*. Alexandria, VA: American Society for Training and Development; 2010.
- 21 Smith-Jentsch KA, Salas E, Brannick MT. To transfer or not to transfer? Investigating the combined effects of trainee characteristics, team leader support, and team climate. *J Applied Psychol*. 2001;86(2):279.
- 22 Joshua H, Joni B. Work environment characteristics and implications for training transfer: a case study of the nuclear power industry. *Human Resour Dev Int*. 2005;8(1):65-80.
- 23 Franco LM, Marquez L. Effectiveness of collaborative improvement: evidence from 27 applications in 12 less-developed and middle-income countries. *BMJ Quality & Safety*. 2011;20:658-665.