

WHITE PAPER

From Novice to Expert:

Turn Your Employees into High Performers

How the Progression of Expertise can Benefit Your Training Program

Progression of Expertise Can Improve Your Training Program

Adapted from the Dreyfus Model of Expertise

An effective training program is a key component of a successful business. While effective training is an investment, it does pay off. One widely cited study by professional services firm Accenture found that for every \$1 invested in training, companies receive \$4.53 in return. That's an impressive ROI.

So, what are the specifics? Where does that return on training come from?

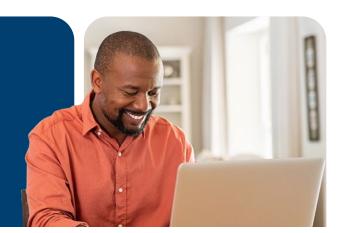
Lets begin with the obvious. **Training your workers improves their skills.** They can complete more tasks, making them more productive. And, eventually, they can complete more complex tasks, enhancing their value to your organization.

Training also increases workers' competence. Not only can they complete more tasks, but they do also it with fewer mistakes. You have a better product or service, less downtime, and fewer injuries.

Finally, training often meets compliance requirements. Whether you have to worry about federal, state, or local regulations, training makes sure you stay compliant and avoid fines.

Obvious Training Benefits:

- 1. Improves skills
- 2. Increases competency
- 3. Meets compliance requirements





Training also provides some less obvious benefits.

Workers who have improved skills and are more competent require less supervision. If your managers spend less time managing workers, they have more time for developing strategies to help your business grow. Managers who trust their employees to do their jobs can focus on ways to streamline processes and reduce costs.

Many organizations are struggling with worker retention. One of the best ways to keep workers is by providing effective training. Ongoing training to increase worker expertise contributes to job satisfaction. And more satisfied employees are less likely to look for greener pastures.

As you build worker expertise through training, you develop a pool to fill vacancies by promoting internally. Providing your own talented workers makes replacing managers and supervisors easier – and workers who can see a clear career progression are more likely to stay with your organization. It's much easier to hire entry level positions to replace workers you promote than to find qualified managers to step into a supervisory role.



Other Training Benefits:

- 1. Reduces supervision needs
- 2. Increases worker job satisfaction
- 3. Provides succession planning

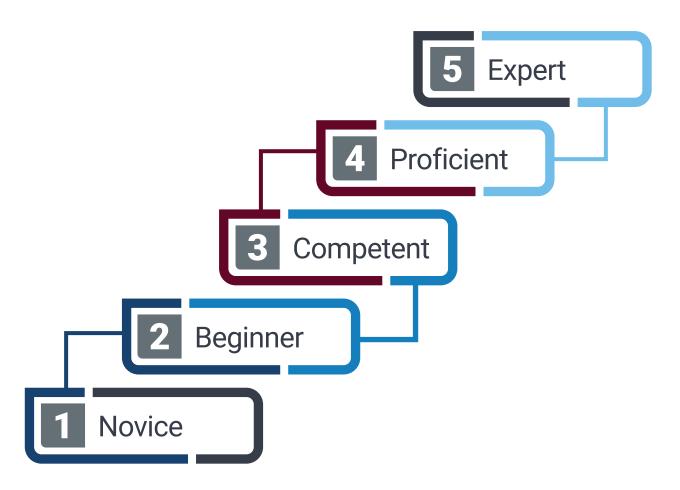
However, you can't just sign your workers up for a bunch of training and expect strong results. An effective program needs to be structured around the tasks employees perform. Each worker's training should be based on what they do.

As workers gain experience and knowledge, they can perform more independently. They can also perform more advanced tasks. Their training should progress as their skills do.



A key element in a structured training plan is employee progression planning.

The first step in developing a progression plan is understanding the stages so you can identify how to move workers from stage to stage. We generally look at five stages for training progression:



Capability assessments identify where workers are in the expertise progression and create opportunities to move them along the path. The training progression should align with job progression, so your workers see a clear career path, providing an experienced pool for you to pull from as supervisor and management positions open up.

Correlating training progression with job progression provides a framework for the expected performance level and identifies how much support is needed at a given level to reduce the risk of operations issues.



Stage 1: Novice

Training for novices starts at the beginning - instructors break down the job task list into simple pieces and parts a beginner can recognize without possessing the necessary skills. These workers are new and inexperienced, so the focus is on telling them what needs to be done.

Training can be provided online or in the classroom. Online training gives everyone a consistent foundation – they get the same information in the same manner before moving into the next level of training.

For example, a new driver learns to recognize basic aspects of driving such as speed and rules for going forward and in reverse. But merely following the rules doesn't translate to reliable performance in the real world. Workers need more than the rules. They need to know the context in which the rules apply.

At the novice stage, workers understand how, but not necessarily why.

So, novice training starts with teaching the pieces, but workers need context to move to the next level.



They still need a lot of direction from their supervisor while they evolve into a more productive worker.





Stage 2: Advanced Beginner

As a novice acquires experience in coping with real situations and begins to understand relevant context, they can respond to more complex situations. After practicing examples, the novice can start to recognize new aspects. At this point, they can contribute more to their role.

For example, an advanced beginner chess player can follow "rules of thumb" or shortcut principles, like attacking a weakened king's side. Using these shortcuts is different from using a procedure. The player must have some understanding of the game.

At the advanced beginner stage, learning is still carried out in a step-by-step frame of mind, with the worker following instructions and examples. They still need a lot of direction from their supervisor.

At the advanced beginner stage, learning is still carried out in a step-by-step frame of mind.







Stage 3: Competent Worker

With more experience, the advanced beginner should recognize more relevant elements. These elements can become overwhelming, because the worker does not yet have a sense of what's important in any particular situation. Until they have the experience to develop that perspective, performance is nerve-wracking and exhausting, and they likely wonder how anyone can do this work.

To cope with overload at the competent stage, workers need to know what is important and what is not in a given situation. Now, the competent worker needs to use both rules and reasoning processes. However, reasoning processes are more complicated than procedures and shortcuts for novices and advanced beginners.

Many situations exist in a complex system – more than can be named or precisely defined.

Competent workers in a complex system, such as the power grid or the manufacturing floor, must be able to decide for themselves what plan or perspective to adopt in each situation.

In the novice and advanced beginner stages, if the procedures or task steps don't work, the worker can see if they missed a specific step or didn't follow a guideline exactly. However, a competent worker is now responsible for their own decisions.

In general, if a worker needs the safety of rules, they will never progress beyond the competence level. At this level, workers focus on learning an overall view – which is required for further progress. Training can provide rules and guidance for understanding the big picture, but the competent worker must understand the implications on their own.





Stage 4: Proficient Worker

As the competent worker becomes more comfortable with a task or responsibility, they are less likely to fall back into the step-by-step ways of the novice. They understand why as well as how, which puts them closer to becoming a proficient worker.

For proficiency to develop, workers need to make sense of a variety of situations.

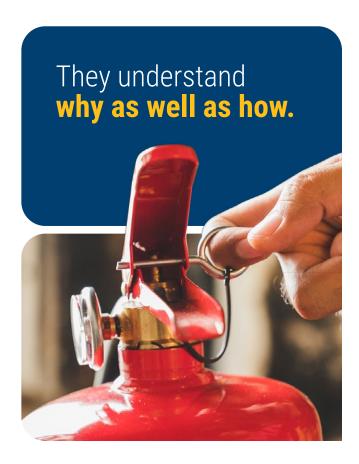
At the proficient stage, the worker sees goals and important aspects.

A complex system has fewer ways of seeing what is going on than ways of reacting. The proficient worker sees what is going on and the important aspects of the situation - now they must use their knowledge and experience to decide what to do.

For example, a worker trained to put out fires proficiently, will choose the correct type of fire extinguisher and operate it in an emergency situation. They will not need to refer to a manual or other instructions or wait for acknowledgment from a supervisor.

Proficient workers are gaining confidence in their skills and knowledge. They continue to need encouragement from supervisors, but don't require the detailed oversight and instruction novices and advanced beginners need.

The proficient worker relies on the principles and guidelines learned through training and expertise to make an informed decision.





Stage 5: Expert

The expert immediately sees what needs to be done and how to do it. An expert can get a split-second sense of a situation and the essential elements which distinguish them from the proficient learner.

This experience does not mean the expert knows the right answer because a complex system scenario doesn't always have one right answer. Instead, the expert knows what matters and can perform an action and adjust from there.

An expert has the deep knowledge and experience needed to act appropriately in completely new situations. An expert control room operator is expected to respond to unique situations and synthesize an appropriate response, whether it's to cut power to a single load or shut down an entire power plant.

From a human performance perspective, while experts can immediately react, it is more important for them to determine whether they should.

At the expert stage, workers are independent. They are emerging as peer leaders and candidates for advancement.

Experts have enough experience in a variety of situations to allow an immediate, intuitive response.





	Knowledge	Standard of Work	Autonomy	Coping with Complexity	Perception of Context
Stage 1: Novice	Cannot connect knowledge to how we do work here	Can perform some steps of the task	Needs close supervision or instruction	Has little or no concept of how to deal with complexity	Tends to see actions in isolation
Stage 2: Beginner	Has working knowledge of key aspects of how we work here	Can perform some individual tasks	Able to achieve some steps using own judgment, but supervision needed for overall task	Grasps some complex situations but can't resolve them alone	Sees actions as a series of steps
Stage 3: Competent	Has good working knowledge of area of practice - some mental models	Can perform all required tasks, but not necessarily all aspects of the job	Able to achieve most/all tasks using own judgment	Copes with complex situations through analysis and knows generally what's going on	Sees actions at least partly in terms of system view
Stage 4: Proficient	Has depth of understanding - more mental models of greater complexity	Routinely performs the job well, depending on complexity of the shift	Able to take full responsibility for own work (and that of other where applicable)	Deals with system-wide complex situations; confident decision-maker	Sees the overall picture and how individual actions fit within it
Stage 5: Expert	Has authoritative knowledge and deep intuitive understanding with rich systemlevel mental models	Can achieve excellence with relative ease for the job in normal and emergency conditions	Able to take responsibility for going beyond guidelines to create improved work practices for others	Switches from analysis to gut instinct without effort in the most complex situations	Sees the overall picture and alternative approaches; vision of what may be possible, normal and emergency

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