

Coaching For Competence: From Novice > Beginner > Competent > Proficient > Expert

Adapted by John Gookin from the Dreyfus brothers' most excellent book (Dreyfus, 1986.)

Competence in a skill is the ability to perform in a way that produces the desired results. This is something that develops with experience and training. Different people need different experiences to become competent and some learn faster than others. There are natural steps that learners evolve through as they develop: these five descriptions describe competency levels in general terms. The first and last stages are well-supported by the scientific community; the middle three are fuzzier. We all probably display each of these levels of expertise every day. An important part of self-awareness is a grasp of our own competencies in the skills we need to perform.

Coaching notes: help people become more aware of their own competency levels so they can see what their greatest contributions to teams are and so they can develop action plans for their continued growth. Use developmentally appropriate training strategies for different levels and expect each individual to be more efficient using their own preferred learning styles. (See the NOLS *Wilderness Educator Notebook* for a field-oriented learning styles self-assessment based on “multiple intelligences.”)

Stage 1: Novice

- Novices use objective facts and apply them using **over-simplified rules**. We call them *context free rules* because they are applied to these facts without situational judgment.
- Novices **apply rules in a simple methodical way** where they recite every little detail to themselves rather than recognizing patterns. For most people this gets tedious after a few experiences. A novice reader might identify the first letter of this sentence by using the fact that an A has two long diagonal lines in a specific orientation to each other, with a shorter horizontal line crossing them about half way up; then they would read the next letter.
- General rules, like “Wear your seatbelt to stay safer” that are true most of the time, but not always, are called *heuristics*. Novices often **treat heuristics as dogma**.
- A novice **doesn't know what it is that they don't know**. Their clueless-ness isn't a comment on their character, or education habits, just on their lack of specific experience.
- A novice's first glimpses of a new discipline teach them simple lessons that frame their expertise in this specific realm. A novice assumes that what they have seen is **normal** and that it predicts what they will see the next time.

Coaching notes: Novices usually perform better if a competent person just tells them what to do and when to do it. Novices need to experience “normal” situations, not the exceptions to the norms. They need simple situations to practice applying their simple rules. Novices need guided experiences and basic instruction at the “one reason why” level of understanding. A guide needs to keep them out of harm's way since they lack situational judgment. A guide may have to just tell them what to do in some complicated situations, and the novice usually appreciates these clear directions. Clear directions and guidance help a novice to succeed at the task at hand, and to give them what they need most: experience. One of the most important things to teach a novice is to ask for help when they need it.

Stage 2: Advanced Beginner

With experience and intelligence, people can usually move quickly to the advanced beginner stage.

- Repeated experience helps beginners become **more familiar with patterns**.
- Repeated experience dealing with real situations fosters the **beginning of situational judgment** where beginners start to identify patterns when certain rules become relevant. They start to learn some exceptions to the rules they initially thought were more concrete.
- But the advanced beginner still **lacks a big picture perspective**. They need a mentor to guide them into situations where they can apply their rules and situational judgment, so don't expect them to notice the roar of the approaching distant waterfall while you are having them evaluate the small rapids immediately in front of them. A clear example observed on a NOLS whitewater course was the advanced novices looking at increased risks as inherent if you wanted to paddle exciting water, whereas the competent paddlers (next level) understood the larger perspective that exciting water needed intelligent and skillful mitigation to bring risks back down to tolerable levels.

Coaching notes: Don't tell beginners to become competent; give them so much real world experience that they will naturally crave competency. Provide “live” coaching to help them succeed. Let them start to risk making mistakes, within boundaries, so they learn their own lessons. Set them up for success with clear instructions, but don't bail them out as readily as you would aid a novice. Help them learn situational judgment, both specifically and generally.

Stage 3: Competence

- An advanced beginner eventually becomes overwhelmed with possibilities. Our brains can usually handle 7 +/- 2 sensory factors when judging a situation (Miller, 1954). Stress diminishes the number of factors we can keep in our highest level of consciousness. Competent performers can slowly put options in **hierarchical order**, like eventually dropping their cell phone to deal with avoiding the oncoming cement truck.
- Competent performers know **solutions to common problems**. This helps them shortcut extensive analysis.
- Competency includes a **big picture perspective with simple priorities**. Once a priority is set, an action plan is developed to use the above rules and judgment to deal with the situation. If more than one priority is chosen to deal with, **multi-tasks are treated as sub-problems** and dealt with individually (higher levels of expertise deal with multiple sub-problems more holistically.)
- Competent people have used a typical *forgetting curve* regression to forget many of the facts they once knew, but they subconsciously still access them and allow them to shape their **intuitive feelings about decisions**.
- **Choosing priorities is more intuitive and less objective** than the above rules, because of its complexity, and because of the natural need for speed in priority-setting. Intuition is the use of subconscious thought, where you access much

more information than your conscious brain can ever afford to manage. It takes a lot of real world experience to become competent. Some people become better at this than others.

- Competency is stymied by a slow and detached decision-making process that involves a lot of conscious reasoning. On a learning expedition, this is often the highest standard we can have for our students because we want the safety filter of small groups discussing key decisions.

Coaching notes: Competency is developed from lots of experience, and from diverse experiences. Good coaching can increase what is learned from those quality experiences. Chess players say that practice making quick decisions helps them get not just faster, but more accurate, using intuitive decision making.

The competent leader can be cut loose to make independent decisions in terrain and circumstances that allow them the time they need for their low-speed decision-making process. In fact, it can be argued that at this point, they *need* independence to learn enough from their decisions to develop proficiency.

The scientists that argue that important decisions are mainly analytical say that training and schooling increases competency at this point. The scientists in the naturalistic decision making school say learners mainly need experience. Obviously both schooling and experience need to happen in a reasonable combination for that specific person in that specific field.

It is fine to occasionally ask folks for objective reasons for why they made a certain choice, but don't expect them to remember later why they intuitively felt a certain way.

Stage 4: Proficiency

- The proficient performer is deeply imbedded in the activity, personally. **They are one with the activity** in the sense explained in our Environmental Educator Notebook: they see themselves as part of the system; they aren't operating a car, they are just driving. They have done the activity so often that **routine tasks, decisions, and priority-setting are subconscious habit**, rather than consciously deliberate. Intuition shortcuts the laborious process of consciously addressing every little factor. This adds tremendous efficiency that leads to **rapid and fluid decisions**.

- Proficiency is usually good but it has its traps. One pitfall is when the proficient person hasn't consulted larger datasets than their own past luck: this develops short-sighted **complacency**. Another potential pitfall is if someone views their own experience-based intuition as actually a newly developed mystical ESP ability (the entertainment industry sends us this message) that transfers to other disciplines. Statistics show that in judging avalanches, people who are proficient in assessing avalanche hazard still have a high rate of accidents (McCammon, 2003.)

- Proficiency gets interesting when more than one proficient person makes a decision. Quick agreement is common, either because they both agree, or because the dissenting person understands the priority of the decision. Because of their competency, they don't tend to argue about trivialities. Disagreement is a yellow flag that forces the team to drop to the slower but more objective decision-making strategies explained above. Proficient people can become bored and tired by this slower and more tedious process. But

interactions with other proficient people add a deeper understanding that helps the proficient person develop even greater convictions about the rules they already intuitively knew.

- The proficient performer is **still making decisions analytically. They are just using a lot of heuristics, intuitive shortcuts, and easy prioritization** to speed up the analytical process.

Coaching notes: To gain expertise, these people can work on teams with peers who will display different competencies, they can work with diverse teams, they can push their limits, and they can just improve by having fun doing what they are good at.

Stage 5: Expertise

- People only become expert when they have an extensive experience base and behave as a **student of that discipline**. They are learning new material faster than they are forgetting the old material. Expert performers generally just know intuitively what to do.

- Experts are more comfortable winging it, because **they intuitively know when they can wing it**. They don't question their abilities: **they intuitively know their abilities and boundaries**. At the same time, when experts need to keep track of more than about 7 items, like a pre-flight safety check or packing for an expedition, they tend to use lists so they don't burden their brain with remembering so many details.

- Following experts might not teach a novice to develop objective judgment, but it models excellent judgment. It is important that experts explain situations carefully to novices or the novices may apply the experience to later situations blindly.

- Most of us are expert at bike-riding, driving, hiking, and talking, and would have a hard time explaining how we do these tasks. If we are expert at tasks like paddling or climbing, it takes a deliberate and tedious process to develop a progression for others to learn to be a good novice, then a beginner, then competent. This educational planning skill is one that many technical experts are novices at.

- At the same time, an expert is always an excellent mentor, if it is role modeling you want. They typically can't be bothered by details like why they made certain decisions, because the whole point is to let their intuition use their experience base to just let decisions flow (Jackson, 1999.)

- There is probably a reason that Paul Petzoldt didn't begin NOLS during his prime years in his 20's-30's. He was an expert mountaineer then. He waited until at 51 years old he had been an expert mountaineer and leader of people for so long that he could help novices develop into competent wilderness travelers and leaders. He waited until he was an expert educator.

Coaching notes: The challenge for experts is to maintain their expertise through experience and proactive learning. Resting on their laurels is an easier alternative that erodes expertise.

References

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