

CPD: The Professional
Helpsheet Series

COMPETENCIES

Overview

Competencies, whether used in business or by professional institutions, cause more misunderstandings than they should. Perhaps it's because they can be simpler than they at first appear and we have a natural tendency to look beyond the obvious.

Let's set the scene. You're at the pub talking with colleagues about a vacancy in your team. A fellow colleague asks you: "What sort of person are you looking for?" You reply: "Well, they need to be a good team player, have solid problem solving skills and good project management, plus a bit of high vacuum." Does that sound familiar? Well, that's the start of a competency framework.

What's a competency framework?

Competencies are a means of describing what people can actually do. Gone are the days of assuming that attendance at a training course or obtaining a qualification means competence at doing something.

As well as having a title or subject area (such as "project management"), there's a need for the competency to have some means of measurement. As scientists, we probably like that – it grounds us in reality and can be beyond dispute. However, this can be problematic, because we're measuring people, and people don't lend themselves to four decimal places of accuracy.

A competency can describe a behaviour that is observable, particularly when considering more management-orientated issues. This may be a single statement or it may detail several unique levels of behaviour (table A). When it comes to technical/job skills, it may be more appropriate to have a generic rating scale like "high", "medium" and "low" (table B). A group of competencies that articulates wider performance is often termed a competency framework.

Table A: Extract from one competency in a Police service framework

Team membership	Level 1	Level 2	Level 3	Level 4
The ability to co-operate and work effectively together	...achieving their own job and ensuring that they get the time and resources to do so...	...helping other team members by acting as an additional resource...	...passing on skills and knowledge to others...	...being sensitive to the dynamics of the team...

Table B: Extract from a generic rating used for many skills in an IT and engineering business

Product or methodology	Level 1	Level 2	Level 3	Level 4
Name of product or methodology	...has a good awareness of an area, and understands when and where it is appropriate to use a particular technique.	...is proficient in the basic tasks and procedures in an area. Is capable of independent working on basic operations.	...is a trusted problem solver in a given area...	...is an expert in the area with an advanced knowledge in most aspects. Is a reference point for levels 1 & 2 staff in resolving problems.

Critically, any framework should be useful and beneficial. So, what are the benefits?

Benefits

If we can all use the same measures and the same scale, we can start to have some consistency and apply boundaries. We will more than likely be using the same language, which attributes the same meanings to measure individuals against this framework. “So what?” you may ask.

As well as measuring an individual, we can profile a job or a role using this same framework and, when comparing the individual with the role, we can identify strengths and development needs from the differences. This is a major strength of such a system.

Provided that the scales and descriptions are articulated well, we can obtain much more objectivity than simply “she’s a great worker” or “he can do a lot better.” A typical in-company framework will be audited by the individual and then signed off by their line manager, rather similar to many appraisal processes. Having these tighter definitions can make it easier to discuss performance or role requirements. A simple question from a line manager when considering a definition might be: “When did you do this?” In fact, many organisations integrate their competency frameworks directly as part of their appraisal or performance-management systems to aid the staff/manager dialogue. Some others stagger it, while still using the same terminology, to help staff and manager to consider individual development needs openly.

Even more benefits can accrue when the business actively uses the framework. Project teams can be pulled together effectively from disparate sites, groups, departments or even countries rather than the work being given to “the usual suspects”. Individuals can identify the differences between current and future roles, and start to manage their own career development. Organisations can use this data for succession planning and talent management, helping them to plan who might be the team leader or managing director of the future. Interviews can be better structured and focus on the specific competencies relevant to the recruitment in hand. Many interviewers across the organisation can work in a consistent way and thereby improve on the decisions made.

Assessment and development centres (for recruitment and succession planning/career development, respectively) move things on further and use these competencies to evaluate performance in areas where individuals don’t necessarily have experience. Assessors formally evaluate observable performance over a number of exercises, each considering several competencies, to build a picture of an individual’s capability.

Competency frameworks can keep an individual’s career in the forefront of their mind, help them to identify transferable skills both internally and on the job market, and assist them in writing their CV.

Competency frameworks can thus be used comprehensively across all sectors of business and all levels of seniority. In addition, they are also used by professional bodies like the IOP, but why?

What’s in it for the IOP?

The reason you may be a member of the IOP, want to join the Institute or are seeking chartered status is probably based on your professional status, networking opportunities, personal career development and the IOP’s standing.

Clearly, the IOP has a duty to maintain physics standards for the benefit of industry, education, the UK and beyond. Without this, all of the reasons become worthless. If you are considering chartered physicist accreditation, we are looking for sound education and professional competence. These are the component parts of your application, and further guidance is available in our helpsheets and at www.iop.org.

With this in mind, our competency framework articulates what is seen as a necessary base level for everyone joining the IOP, whatever their background. Obviously, not everyone’s experiences are the same, so flexibility is achieved by having a central core combined with a choice from a wider group of competencies. There are also differences between CPhys and CEng, which naturally come from two different roles and separate organisations. There are, however, overlaps in the type of content, although the language may be slightly different.

The next part is evidence. How can you prove that you can do these things? While we can give some examples, they aren’t exhaustive – we’re just trying to give you a flavour (box C). When considering evidence, don’t be constrained by university or work; instead think broadly. For example, if you coach a football team, does this provide evidence of “technical and managerial skills”?

Box C: Extract from the IOP's CPhys framework

C. Technical and managerial skills

You should demonstrate your ability to:

- plan for effective project implementation;
- make effective use of all resources (such as people, time, finance, physics knowledge) and demonstrate leadership in carrying out tasks;
- develop the capabilities of people for whom you are responsible (e.g. students and team members) to meet the demands of changing technical and managerial requirements;
- bring about continuous improvement through quality management.

Completing the paperwork

Once you have reviewed the application process, you will need to get down to the detail. At first it may look a little daunting, but settle down and tackle it in a structured way that works for you.

Don't worry if at first you can't see how it might pull together. Start by gathering information and ideas in a variety of ways. We're all different, so the following suggestions from other applicants may help.

- I reviewed my jobs and made a few notes about what I did.
- Thinking about my different bosses and line managers reminded me of what I really worked on.
- I thought about my best and worst job experiences to consider "what" and "why".
- Although my job description wasn't quite up to date, it was a good start.
- My company's appraisal gave me some summaries about what I'd been doing well.
- When I read the IOP competencies, some situations sprang straight to mind.
- Don't get too hung up on their examples – they're just that and you need to provide your own evidence.

If this is your approach, you may end up with a whole lot of information about what you've been doing which, incidentally, may be helpful elsewhere in your application. Review this information and the competencies, see where they overlap and, where you have more ideas, expand the detail.

Remembering that, as scientists, we like to measure and prove things, make sure you prove it. Explain in a succinct and informative way how you can demonstrate that you have undertaken what is required. You may have had to do similar things on written job applications where companies are seeking evidence to help them to make decisions about whether to interview or not.

A useful approach to consider is summed up by the STAR acronym, as follows:

Situation – set the scene before you go into detail.

Task – what needed to be done?

Action – what did you in particular do?

Result – what was the outcome?

This information list doesn't need to be long-winded and it may only require a sentence or two, but it is akin to a good story having a beginning, middle and end. Have you ever been asked to stop what you're explaining and go back to the very start? If so, this approach may assist your clarity both here and in other written/spoken work.

The action part is where you demonstrate what you did, so beware of the interchangeable use of "I" and "we". If you modestly talk of "we" all the time, it's hard to know what you in particular did. Equally, if "I" restructured the global quality processes, was it really a team effort? Be aware and be honest – even team members make important demonstrable contributions.

Considerations

- Every company and institution tends to have a different competency framework. Yet there will be overlaps and once you get past this, things will become more straightforward and may even map across.
- "I don't agree with the competencies and their definitions." That's often an argument, because we all have our own view. A decision must be made at some point to create a framework. That said, we will then all be using the same measurement, so this consistency will bring its own benefits.
- "I don't want to appear incompetent." Beware of overrating your performance because, as well as being wrong, it can block training and development opportunities.
- "Everyone overrates themselves" This isn't true – just as many people underrate very modestly.
- "I'm senior so all of my competencies are top notch." Often this is a view, yet as we progress in our career and seniority, our detailed technical skills may decrease, our range of skills may increase and our interpersonal competencies should improve.
- "I'm junior and have no evidence or exposure." Naturally, the earlier you are in your career, the less opportunity you may have had. Think broadly about university, clubs, voluntary work and so on. If you're a returner or undertaking a career change, think about previous transferable skills and experiences.

Other information

www.iop.org – the IOP website, for current competencies and application processes

www.civilservice.gov.uk/iam/psg – across the UK Civil Service there is a Professional Skills for Government (PSG) competency framework

Written by Hesketh Emden of proInsight.

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