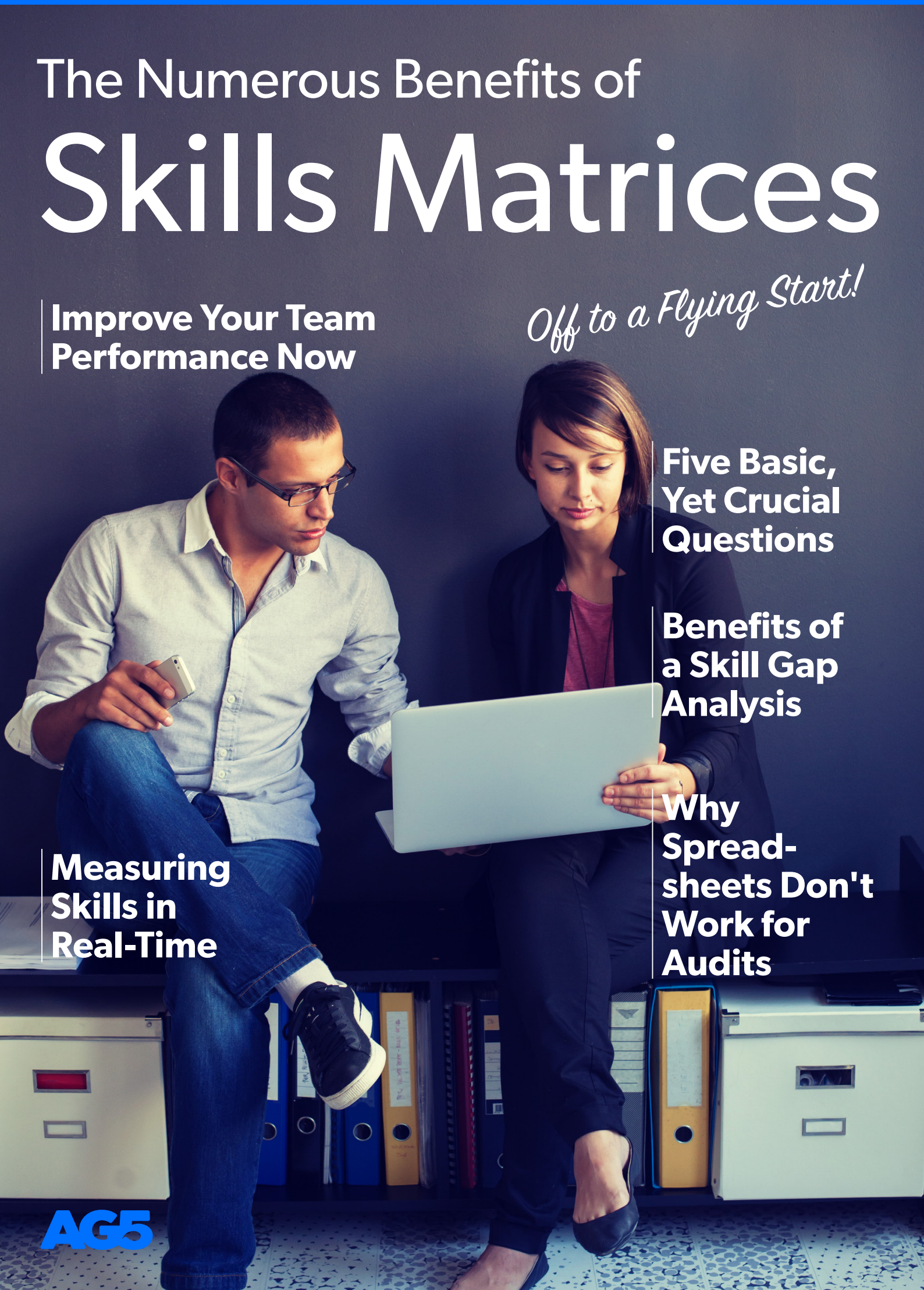
The Numerous Benefits of Skills Matrices



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Five Basic, Yet Crucial Questions

Benefits of a Skill Gap Analysis

Why Spread-sheets Don't Work for Audits

Measuring Skills in Real-Time

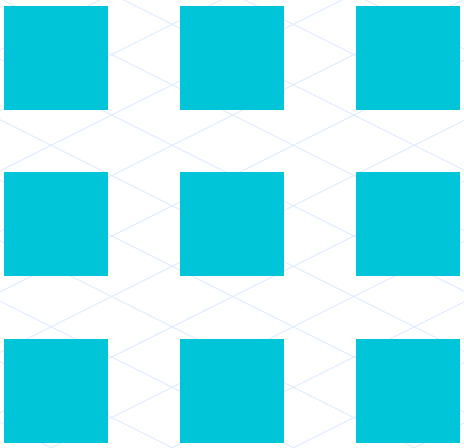
AG5

This white paper examines the benefits to be gained from using skills matrices. We'll be demonstrating how staff and teams perform better as a result, and the actual benefits they provide.

Not only will we be looking at the theory, we'll also see how skills matrices can be used in practice. For instance, we'll be demonstrating how proficiency levels form the basis for every skills matrix, as well as how varied they can be, from simple to complex. We'll be discussing three types of matrix, which will help you apply the principles to your personal situation. Then we'll look at measuring, analyzing, and optimizing,

Armed with these insights and practical information, you'll be in a position to decide which matrix would work best for your organization.

Enjoy!



The Five Basic, Yet Crucial Questions

Our blog post titled Five Basic, Yet Crucial Questions to Ask Yourself before Implementing Skills Matrices addressed what we believed to be the five questions every organization and employer needed to ask themselves. Only once these questions had been answered should they get down to the business of implementing skills matrices. To recap, here are those five basic questions:

1. What 'qualifications' do my staff need? (Required)
2. What 'qualifications' do my staff already have? (Actual)
3. Are my staff sufficiently 'qualified'? (Skill Gap)
4. If a gap exists, how and where can we acquire or develop missing 'qualifications'?
5. How and where can 'qualifications' be formally demonstrated?

We purposefully used the word 'qualifications' or 'qualified' to emphasize that this entails far more than just skills. View 'qualifications' as a set of criteria in which 'skills' are a subset.

The answers to these five questions provide a basic insight into the requirements and potential complexities of managing staff qualifications within your organization. If you succeed, then you'll not only be in control of your daily operations, but you'll also be able to make ongoing improvements within your workforce. This is just one way you'll be able to make a difference, not only within your company, but also in the market or sector in which you operate.

Skills matrices help organizations improve. But how exactly? How can you develop a matrix or matrices that are right for your organization? How do you use skills matrices on a day-to-day basis?

What is a skills matrix?

A skills matrix is a visual tool, which specifies the skills needed to perform a given task or job, as well as their actual and required proficiency levels. It can also help with day-to-day planning based on operational strengths.

- They also provide answers to questions such as, "Do I have sufficient staff with the right skills to carry out the work at hand?" and
- "Do I have the right mix of proficiency levels in my team?".

"A skills matrix is a powerful, visual tool to help you manage staff skills."

Various types of matrix exist depending on who owns the matrix, e.g. matrices for teams, departments, sites and managers.

Something we're particularly enthusiastic about, and we also hear about from our users, is the fact that it's possible to see the current status and areas for improvement at a single glance. This is one of the major benefits of skills matrices.

The Benefits of Skills Matrices

Improved Staff & Team Performance

A skills matrix clearly and concisely illustrates a current individual and/or team status in relation to safeguarding the right skills in the right place at the right time. It also highlights the 'gaps', i.e. the discrepancies between actual and required proficiency levels.

A major benefit is that matrices maintain a focus on these gaps. In other words, they're always on your radar. This alone generally prompts those in charge to fill the gaps. It's an uncomfortable feeling knowing that there are gaps and you're not doing anything about them.

Staff can also get personally involved in developing and improving their own skills. This is certainly the case where skills matrices are used for joint career development and appraisal purposes.

This working method helps make the team and the organization as a whole far more resilient and professional. A team is made up of the right people with the right skills who perform their tasks to achieve exceptional results. Successful teams and organizations are constantly on the look-out for talented new employees. This is another way in which you can continually make improvements as a team, company, or organization. And this doesn't require any drastic change management program. Just look where improvements need to be made in terms of proficiency level and you're already on route to improving quality levels.

Did you know that...

- Eighty per cent of the top-performing companies have defined their skills and competences?
- These companies use their insights to improve workforce performance?
- These companies use their insights to recruit and select new staff?
- Organizations using skills management are more profitable and report higher customer and staff satisfaction levels?

Aberdeen Group, Competencies in the 21st Century.

Benefits for Organizations

As previously mentioned, skills matrices provide a real-time, visual insight into staff/team skills and skill gaps. This helps staff and teams perform better. Allow us to explain how working with skills matrices benefits the entire organization.

Staff: Can see directly what skills they could or should acquire or develop to make further progress. They can use skill matrices:

- to see actual proficiency level.
- to see which skills he/she could or should acquire or develop and which skills the team needs as a whole.
- to remain motivated and continually develop and acquire new skills.

Team Leader: Can see directly his/her team's current status in terms of operational strength, skills, skill gaps, and training requirements. Can use skills matrices:

- to plan in such a way that safeguards operational strength.
- to see actual and required skills quickly and easily, and determine training and/or learning requirements, or recruitment needs.
- to increase staff flexibility by encouraging lateral development and job variation to prevent boredom.

Personnel Manager: Uses skills matrices as essential input for his/her work. Can use skills matrices:

- to identify the right people with the right skills for recruitment and selection purposes.
- to conduct staff appraisal and career planning interviews.
- to determine training requirements and monitor the effect of training programs.

Skills Matrices – Strategic & Operational

Skills matrices should form an integral part of your company's HRM policies at a strategic level. They play an important role not only for the personnel department, but also at an operational level in terms of risk management.

We're convinced that even your customers will notice a difference once you've optimally deployed your staff's skills, filled the gaps in a timely fashion, and motivated your staff to work on their own personal and professional development. After all, isn't this the reason why we do what we do?

Proficiency Levels – The Foundation

Before you can even start creating skills matrices, you'll need to accurately determine which skills your organization actually needs. Then for each skill, you'll need to assign proficiency levels and state how these can be measured. Doing so will make it clear to everyone in the organization what is expected of them, and at what level. The more accurately you do this, the greater the clarity and insight you'll provide. This will form the foundation of your skills matrix.

We've included an example below to illustrate this process. In this example, we defined the 'Calibrating Measuring Equipment' skill for a manufacturing company.

A Name and describe the skill.

A	**Calibrating Measuring Equipment** Calibrating measuring equipment for its intended use

B Determine the number of associated proficiency levels. In this example, this was set at four – *Trainee*, *Advanced*, *Expert*, and *Trainer*. Note the symbol next to each level, which will be used next in the skills matrix. Describe each proficiency level clearly and concisely.

A	**Calibrating Measuring Equipment** Calibrating measuring equipment for its intended use			
B	1. TRAINEE Performs maintenance under supervision	2. ADVANCED Performs maintenance independently	3. EXPERT Improves maintenance procedures	4. TRAINER Trains others to maintain measuring equipment

C Define how this is measured for each proficiency level, e.g. state relevant behavioral indicators, knowledge levels, or responsibilities.

A	Calibrating Measuring Equipment Calibrating measuring equipment for its intended use			
B	1. TRAINEE Performs maintenance under supervision	2. ADVANCED Performs maintenance independently	3. EXPERT Improves maintenance procedures	4. TRAINER Trains others to maintain measuring equipment
C	Doesn't really know where or how to begin	Knows and performs standard calibration procedures	Supervises others performing calibrations	Creates new training procedures for calibrating equipment
	Doesn't know the difference between, voltage, current, and resistance	Has sufficient knowledge of voltage, current, and resistance	Can calculate power output from voltage, current, and resistance readings	Teaches others the principles of electricity

This defines the skill in terms of proficiency levels and how these levels can be measured. You can do the same for your own organization's skills, competences, or tasks. On the upside, it's an exercise you'll theoretically only ever have to do once. Thereafter, you'll only have to make any necessary amendments. And to get off to a quicker start, you'll find plenty of sector- or industry-specific skill/competence lists online, so that you don't have to reinvent the wheel. Piece of cake!

All Shapes & Sizes

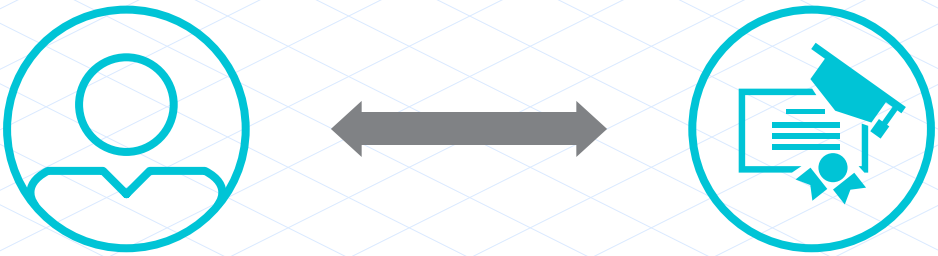
A wide variety of skills matrices are available for use. Several factors play a role including:

- company size
- organizational complexity
- no. of jobs/roles/skills
- proficiency level granularity
- ownership

These factors will in part influence the type of skills matrix you'll need and the elements to include. We'll use three examples ranging from simple to complex. We'll be looking at this aspect in detail to help you apply these principles to your own organization.

Matrix Version 1 – Individual Requirements

In the simplest version, you assign 'qualifications' or 'skills' to an individual.



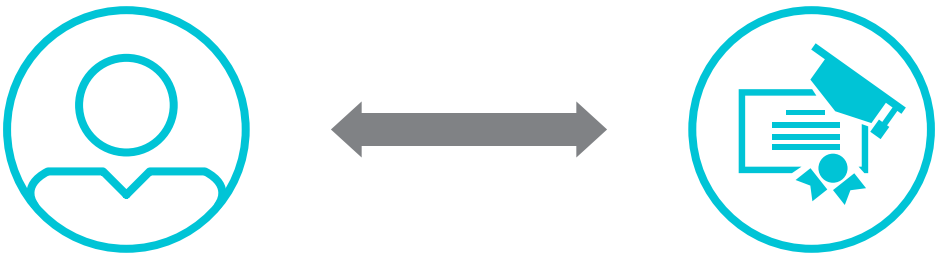
A skills matrix will then look fairly simple. The left-hand column lists your employees and the top row lists relevant qualifications or certifications. In the matrix itself, you use check marks or crosses to denote that a given employee is certified or qualified.

Please see the example below.

Afdeling	Unit A	Certificaten					
Team:	Ploeg B	1	2	3	4	5	6
		VCA-VOL	BHV	Heftruck			
Regnr.	Naam						
38872	Ewald Alofs	✓	✓	✓			
39258	Vikas de Canselaar		✓				
42382	Maureen Aalderts	✓					
46322	Coen Egbertsz	✓	✓				
48944	Fleur van de Ree		✓				
42630	Ben Samuel			✓			

A slightly more complex version involves assigning proficiency levels.

Matrix Version 2 – Skills & Proficiency Levels



Individual

Qualification
– certifications
– skills

The previous matrix has been extended to include 'Technical Skills & Tasks'. In this matrix, the employee's proficiency level is denoted using quadrants. This allows the 'Expert' at 'Calibrating Measuring Equipment' to be identified quickly and easily – Steve Jefferson. It also highlights which skills each employee could or should acquire or develop.

Afdeling	Unit A	Certificaten				Technische vaardigheden / taken												
Team:	Ploeg B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Leerling / Gevorderde / Expert / Trainer		VCA-VOL	BHV	Heftruck		Kalibratie meetapparatuur	Vervangen van actuatoren	Side Panel operation	Allan Bradley PLC	Indramat servo motors	Aansluiten meetpalen	SAFETY -Height	SAFETY - Confint space	Problemsolving -RedX	Elektrische scema's & hardware	PLC hardware	Frequentiesturing	
Regnr.	Naam																	
38872	Ewald Alofs	✓	✓	✓		◑	◑	●	●	◕	◕	◕	◕	●	◕	◑	◑	
39258	Vikas de Canselaar		✓			◕	◑	●	●	◕	◕	●	◕	◑	●	◑	◕	
42382	Maureen Aalderts	✓				◔	◑	◑	◑	◕	◕	●	◕	◔	◑	●	◔	
46322	Coen Egbertsz	✓	✓			◑	◑	◕	◕	◕	◕	◕	◕	◕	●	◑	◔	
48944	Fleur van de Ree		✓			◔	◑	◑	◑	◕	◔	◑	◑	◑	⊕	⊕	◕	
42630	Ben Samuel			✓		◑	◑	⊕	⊕	◔	◑	◑	◔	⊕	⊕	◔	⊕	

The four-quadrant model is often used in organizations where a trainee-mentor system is also used, i.e. new staff members learn the ropes from experienced staff members. The four-quadrant model is by no means mandatory. You could also use a color scheme or a grade to specify proficiency levels.

The third and most complex example requires more detailed explanation. This adds a team-level GAP analysis to the second matrix, i.e. the difference between actual and required qualification or certification levels. Doing so allows you to take full control in terms of monitoring, measuring, and analyzing team skills. We only refer to this version as 'complex' because it contains far more information than the first or second versions. In reality, it's still fairly easy to use.

Matrix Version 3 – GAP Analysis

The real benefits of a skills matrix are gained when it includes a GAP analysis, i.e. the difference between actual and required qualification or certification levels. This allows you to analyze the current situation at an individual and team level. It also allows you to make better-informed decisions or plan for certain eventualities. When individuals acquire and develop new skills, this not only benefits themselves directly, but also the team, the department, and ultimately the company as a whole.

Department	Unit A	Certification				Technical Skills & Tasks												
Team:	Shift B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Trainee / Advanced / Expert / Trainer		SOS-SCC	CERT	Forklift Truck		Calibrating measuring equip.	Replacing actuators	Side panel operation	Allan Bradley PLC	Indramat servo motors	Attaching measuring posts	SAFETY – overhead working	SAFETY – confined spaces	Problem-solving – RedX	Electrical diagrams + hardware	PLC hardware	Frequency control	
Reg No.	Name																	
38872	John Harrison	✓	✓	✓		◑	◑	●	●	◕	◕	◕	◕	●	◕	◑	◑	
39258	Steve Jefferson		✓			◕	◑	●	●	◕	◕	●	◕	◑	●	◑	◕	
42382	Maureen Alberts	✓				◔	◑	◑	◑	◕	◕	●	◕	◔	◑	●	◔	
46322	Arthur Davies	✓	✓			◑	◑	◕	◕	◕	◕	◕	◕	◕	●	◑	◔	
48944	Fran Williams		✓			◔	◑	◑	◑	◕	◔	◑	◑	◑	⊕	⊕	◕	
42630	George Sanders			✓		◑	◑	⊕	⊕	◔	◑	◑	◔	⊕	⊕	◔	⊕	
Minimum team qualifications		3	2	5		3×3Q	3×2Q	3×3Q	3×3Q	2×4Q	3×3Q	3×3Q	3×3Q	3×3Q	3×3Q	3×3Q	3×3Q	
Current team qualifications		3	4	2		1×3Q	6×2Q	3×3Q	3×3Q	0×4Q	3×3Q	4×3Q	4×3Q	2×3Q	3×3Q	1×3Q	2×3Q	

Minimum Team Qualifications

This row lists the minimum level for the team as a whole. For example, under 'Certification', the minimum requirement is three SOS-SCC certified employees. For the 'Calibrating Measuring Equipment' skill, the minimum requirement is three employees at a 3Q (Expert) level.

Current Team Qualifications + GAP Analysis

This row lists existing qualifications. For SOS-SCC, this is '3'. This is green because it is greater than or equal to the minimum team requirement (3) listed on the row above. The 'Calibrating Measuring Equipment' skill is red because there is only one employee who has reached the 3Q level (three quadrants). The minimum team requirement is three employees at a 3Q level, i.e. two more need to be trained up to 3Q. John Harrison, George Sanders, and Arthur Davies are prime candidates because they are already at the 2Q (Advanced) level.

Monitoring & Analysis – Continual Improvement

The word 'insight' has been used repeatedly. Let's discuss this in more detail. You've gained this insight because you made skills quantifiable. With this insight, it is also possible to perform a proper analysis. But does this have the intended effect?

This is how it works. Measure actual proficiency levels and determine the GAP. Next, plan new training courses for your team to improve certain skills or recruit new staff with these skills, either internally or externally. Then, monitor whether this has the intended effect. Finally, start again, i.e. determine whether minimum requirements are being met or need to be adjusted. By repeating this cycle, you constantly maintain a focus on skill improvement. See the diagram below:

1 Set your goal – skills required

On several occasions, we've mentioned the importance of defining skills, specifying actual/required proficiency levels, and stating how these can be measured. They are important here as well. This principle forms the basis of the skills matrix.

2 Measure current proficiency levels – GAP analysis

Measuring current proficiency levels can be done in one of several ways, but most commonly as follows:

1) Employee self-assessment and/or
2) Employee assessment by an expert

3 Train or recruit employees

Based on the GAP analysis, discussions are held with employees about the skills they need to acquire or develop, as well as when, where, how, and with whom. There are various ways to do this, e.g. on-the-job training, e-learning, or an internal/external training course.

Alternatively, it may already be clear that training someone on the team isn't going to solve the GAP problem. The only solution then available is to recruit someone new.

4 Analyze effect of training/recruitment

The result of training can then be incorporated into the skills matrix. The effect can be measured from the point in time that the trained employee puts his/her newly acquired skills into practice. Behavioral indicators, knowledge levels, and responsibilities attributed to each skill can help with this process.

A spin-off of performing this analysis is the ability to assess the effectiveness of your company's training programs. This also provides input for discussion with trainers and/or training institutions.

If a decision was made to recruit a new employee (internally or externally), then behavioral indicators, knowledge levels, and responsibilities required for the job or role in question can be discussed with the new hire.

Continual Improvement

The results of the analysis determine whether you as an organization need to adjust your objectives, i.e. your required proficiency levels. If so, repeat the cycle. Doing so on a continual basis will improve individual, team, and organizational performance on a daily basis. This also saves you having to set up and implement change management programs and the upheaval that these generally cause.

Skills Matrices – To Excel or Not to Excel?

In recent years, we've seen many different types of skills matrix, and many have been created using spreadsheets, such as MS Excel. It's tempting to use a spreadsheet because so many templates are available for download online, most people are familiar with spreadsheets, and it incurs no additional costs.

However, stop and think very carefully before using a spreadsheet to manage staff skills. After all, this is a critical operational process, especially if you have a complex organizational structure with numerous jobs, roles, skills, users, and owners.

Sooner or later, you'll be confronted with one or more of the pitfalls associated with using a spreadsheet:

- error susceptibility
- local data storage
- poor version management
- zero real-time data insight
- no authorization levels
- poor manageability
- complex template updates

We've already written a related article on this subject titled ***Why Spreadsheets Don't Work for Audits***.

We're adamant that these processes and their associated data should be managed using a special-purpose cloud solution. Why? Because doing so avoids all the pitfalls listed above. If you want to be able to manage this process well, then these are definitely pitfalls you'll want to avoid.

FREE QUICKSCAN

We'll analyze the methods you're currently using to manage your staff's skills and provide you with a no-nonsense set of recommendations about how to improve these still further.

If this has whetted your appetite, sign up for a FREE QUICKSCAN.

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