

The Science of Skills

Saville Assessment

White Paper

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At Saville Assessment we are building out a unique perspective on the application of skills in assessment. This new approach clarifies the definition of skills and how you assess for the potential to acquire new skills.



Our innovative, new approach to skills and skills potential has important ramifications for hiring, talent development and wider talent management.

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Why Skills Resonate

The powerful shift to **skills** in the workplace has begun to provide a common language that resonates with employees and leaders alike, and the importance of the **skills** agenda has started to properly catch the attention of C-suite leaders.

The language of **skills** resonates so strongly because it is so simple for people across organizations to understand; terms such as **skilled**, **reskilling**, **upskilling** and **skills gaps** are readily understood without further explanation.

The skills-based organization is a concept that has been growing in prominence, however, a rigorous and tangible skills-based approach to talent management is yet to be agreed upon. The demand for such is now bigger than ever, as data shows that 66% of large organizations face a struggle to hire people with the required skills¹. Simultaneously, 74% of workers are likely to leave a job due to insufficient focus on skill development in their organizations². This makes a strong case for investing in a scientific skills-based solution to inform data-led decisions across talent acquisition, development and management. The first step is to address the inconsistency in how skills are being defined.



What are skills?

Human attributes developed through learning and experience which underpin effective performance.

What are not skills?

Personality characteristics, aptitudes, competencies, strengths, attitudinal or emotional states, interests, broader sets of behaviors.

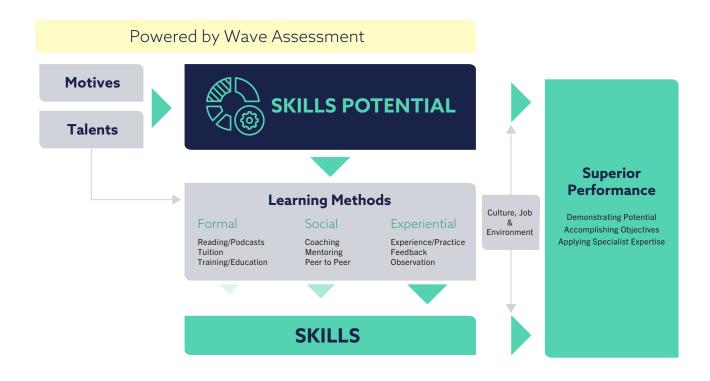
The Shift to Skills

Skills offer an advantage over other constructs that have been commonplace in assessment such as competencies, capabilities or strengths in that they comprise highly-specific and trainable attributes. From the perspective of the learner, job seeker or employee, **skills** offer the opportunity to supplement their existing **talents** with tried and tested methods and techniques to enhance their effectiveness at work, as well as their future employability.

Our New Model of Skills

enhanced

At Saville Assessment, we have developed the **Science of Skills Model** which works throughout the employee lifecycle.



In our new Science of Skills Model, **motives** and **talents** underpin **skills potential** and **skills potential** impacts on **superior overall performance** via two different pathways:

Skills potential leads to superior performance through individuals performing everyday tasks more effectively because they possess the appropriate motives and talents

Through the development of specific relevant skills, performance is further

Skills in Action

To understand skills and skills potential, it is useful to consider the definition of the key concepts involved, how to measure each of them and an example to bring it all to life.

Concept	Definition	How to measure	Applied to Usain Bolt
Superior Performance	Superior performance is better delivery of skill/skillset leading to wider achievement.	Regular observation and feedback	Usain Bolt wins Olympic gold.
Skill	Skills are defined as human attributes developed through learning and experience which underpin effective performance.	Skills-based interviewing	Usain Bolt acquires and improves specific sprinting skills through extensive practice, competitive experience on the track and hard work.
Skillset	Skillsets are compounds of skills to achieve a desired purpose.	Skills-based interviewing	Sprinting is a skillset, comprised of skills including starting techniques, stride mechanics, arm action, body position, breathing and finish techniques.
Skills Potential	Skills potential is a critical combination of underlying talent and motivation that enables an individual to acquire and develop a skill/skillset.	Wave — questionnaire assessing 36 dimensions of behavioral motivation and talent	With strong motivation and raw underlying talent, Usain Bolt has always had high potential to develop strong sprinting skills.
Motive	Motivation is the desire to acquire and develop a particular skill/skillset. Where motivation is high, more time and effort will be invested in practice.	Wave — questionnaire assessing 36 dimensions of behavioral motivation	If Usain Bolt did not possess such strong motivation, he would not have spent six days a week training and practicing drills; he would not have had the sprinting skills to achieve what he did.
Talent	Talent is what we start with and what we are predisposed to be good at. It is shaped by how we have responded and developed in our youth.	Wave — questionnaire assessing 36 dimensions of behavioral talent	Usain Bolt has always run fast. If he was born into a different body, he may have achieved, but could not have achieved what he did.

The Skill Equation:

Superior Performance = Motive + Talent + Skill/Skillset

OR

Superior Performance = Skill Potential + Skill/Skillset

The Skill Equation provides a straightforward and powerful algorithm for enhancing performance. The combination of motive and talent linked with the acquisition of specific skills or skillsets results in superior performance. The equation can be simplified to highlight that the combination of skills potential and the acquisition of specific skills/skillsets leads to superior performance.



Skills and Talent Acquisition

The Skill Equation emphasizes the importance of assessing for **skills potential** as well as **skills** themselves. However, it may be that there are some situations where direct skills-based hiring is appropriate without necessarily having the need to focus on **skills potential** as well as **skills**.

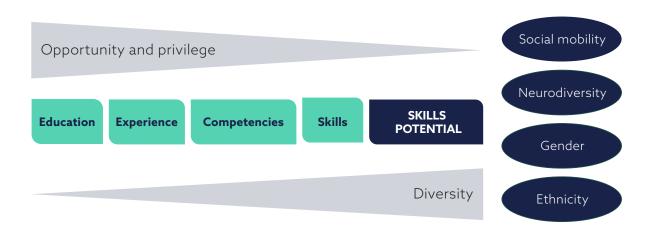
Direct Skills-Based Hiring	Skills Potential and Skills-Based Hiring	
When you immediately need a specific skill on a project / in an internal team	When recruiting for (longer-term) employment	
Gig economy recruitment	When jobs will change or people will be required to use new and different skills	
Short-term outsourcing	Identifying potential for future career paths	
Fixed, narrow, repetitive skills-based jobs	Building a diverse talent pipeline	

A Note on Skills-Based Interviewing

Given skills are high fidelity (specific and narrowly defined), it is normally necessary to assess for a higher number of skills than you would for competencies or strengths. Therefore, in an interview, you may want to consider how you group them. One approach we recommend is to use skillsets, e.g. project management, performance coaching, stakeholder management. The interview can focus on verifying that a candidate has acquired the requisite individual skills that underpin a particular skillset.

Assessing for Skills Potential Promotes DE&I

Hiring on the basis of education or experience is more open to being influenced by the degree to which an individual has been exposed to opportunities and privilege. Whether it is being able to pay for expensive education or getting experience from doing unpaid work, experience and education do not present a level playing field for socially-disadvantaged groups. Therefore, if we are looking towards hiring with a greater focus on diversity, whether that be for social mobility, neurodiversity, gender or ethnicity, we should consider the advantages of **skills** and **skills potential** assessments.



While the shift to **skills potential** can help promote DE&I, it is also more futureproof in that it addresses the issue of skills scarcity, which we expect will continue to be an issue given the pace of technological change and the emergence of new **skills** (e.g. prompt engineering from Large Language Models - LLM).

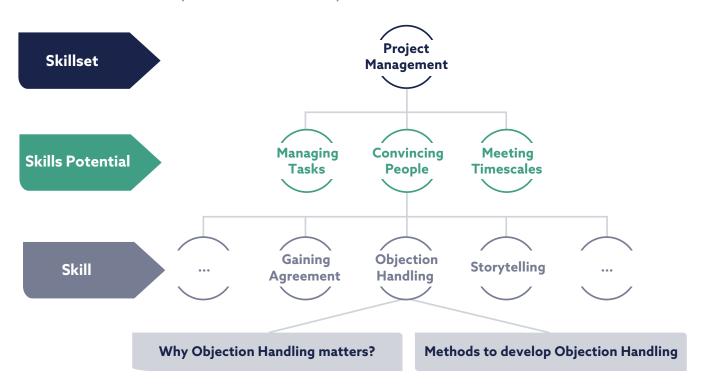


Skills and Talent Development

Skills-based development allows individuals to supplement their **talents** (and **motives**) with the development of key **skills** via tried and tested methods, and techniques to improve their performance. However, the specific nature of many **skills** lend themselves particularly well towards being learnt through practical experience in the flow of work rather than through formal training or education.

Think of the 70-20-10 rule for effective learning (as depicted by the size of the three downward triangles in the Science of Skills Model) where 70% should expect to be experiential, 20% social and 10% formal. One of the real future challenges that we foresee for effective skill development in many jobs is the need to optimize skill development in the flow of work through experience rather than through formal methods of learning.

Skills Development Journey



In practice, developing a whole **skillset** may be quite challenging for the novice or even the expert. However, picking off individual **skills** that will enhance the Project Management **skillset** provides a scalable way for an individual to develop.

Someone trying to build out their Project Management **skillset** would benefit from acquiring the **skill** of Objection Handling. Mastering this **skill** would enable them to respond effectively when others challenge the rationale behind a deadline or do not believe the task they have been designated is something they should be prioritizing. An individual can develop the **skill** of Objection Handling in the flow of work by practicing challenging different stakeholders and colleagues, experimenting with different methods to get the best results. The **skill** of Objection Handling can be developed via different learning methods including practice, observation, empathy, feedback, etc.



Implications for the Future of Skills

Skills Frameworks (Unlevelled)

Historically, job models and frameworks have been based on job levels, evaluation or grading systems and included the same set of broad behaviors defined differently for different levels in an organization. **Skills** are narrower in nature, so they allow for matching of required **skills** to each specific role rather than levelling **skills**.

No doubt there will be attempts to level **skills**. However, we argue it makes no sense to level **skills** and it will result in making them inflexible in a new world where we can do more with data - e.g. understand where a **skill** resides in the organization regardless of job level.

A CEO is likely to possess very different **skills** from their Financial Controller(s) but they may have some **skills** in common (e.g. spotting discrepancies in data). Levelling such **skills** is an exercise in creating complexity and confusion.

Systemic HR

There is a variety of technology ecosystems used for the different organizational talent processes. Specifically, applicant tracking systems (ATS) are normally implemented to support talent acquisition, learning management systems (LMS) to fast track talent development and performance management systems to address talent management.

We envisage **skills/skillsets** becoming central to a more integrated form of HR, where there is more pooling of technologies and data from talent acquisition, development and management. This will undoubtedly offer much richer actionable insights that will have much greater impact on organizational effectiveness. We also believe that embedding **skills potential** is as critical as embedding **skills** if organizations want to maximize the performance benefits of the **skills** paradigm shift and to futureproof themselves with the emergence of new **skills**.



- Skills resonate from the bottom to the top of organizations and they are here to stay
- Skills are defined as human attributes developed through learning and experience which underpin effective performance
- Skills are powerful as they isolate what can be developed from what cannot
- Skills potential is a critical combination of underlying talent and motivation that enables an individual to acquire and develop a skill/skillset
- Superior Performance = Skill Potential + Skill/Skillset
- DE&I outcomes would generally expect to be improved with skills and skills potential when compared to education or experience
- Skills (and skills potential) will be the common language of talent acquisition, development and management



References:

¹Oxford Learning College (2022), Skills Gap Statistics UK 2023

² Workplace Intelligence (2022), *Upskilling Study*



Saville

info@savilleassessment.com

www.savilleassessment.com