



Cangrade White Paper

Powered by data science, customized for you

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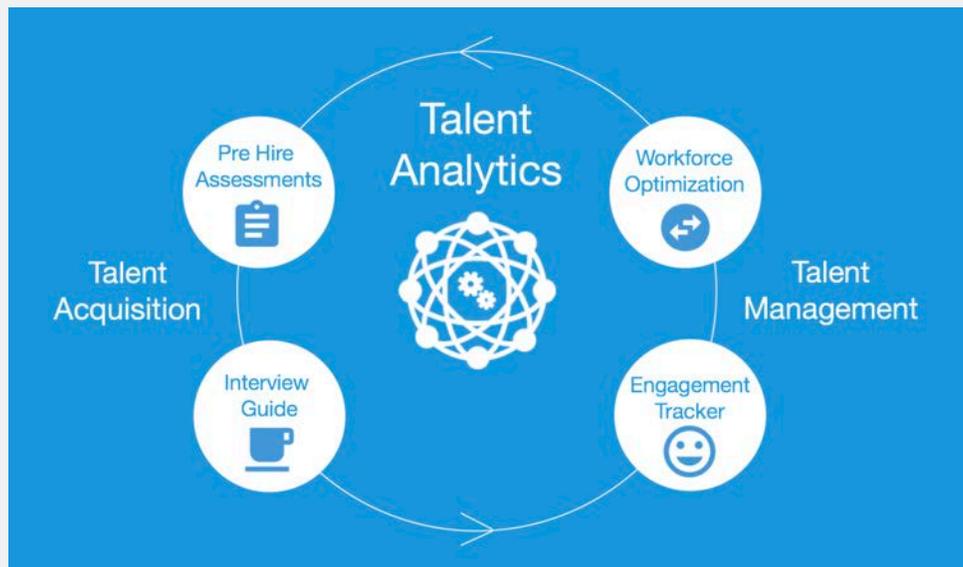
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The Science of Strategic Workforce Planning

Your company's long-term success depends on strategic, smart HR decisions about talent acquisition and management.

Cangrade's data-driven solutions enrich HR decisions, while saving time and money.

Cangrade's scientists have spent years developing an efficient and effective analytic engine to assess and bolster the success of prospective and current employees. We have developed a *Core Predictive Analytics System* that generates two distinct product suites: *Hiring Analytics* and *Workforce Analytics*.



These analytic success mechanisms are powered by intuitive cloud-based software solutions that will enrich your company's current workforce planning systems.

Core Analytics: Predictive Data Science

To enable truly strategic HR decisions, we must answer two critical questions:

1. *What outcomes show that a company or team is successful?*
2. *What characteristics of people and teams drive these outcomes?*

We find that most companies are accustomed to the challenge of identifying pivotal outcomes that signify success; these outcomes can vary from retention to revenue to cultural fit. Many companies, however, get stumped in trying to understand what to look out for or how to go about growing and nurturing a workforce that will achieve these outcomes. For example, many companies don't know which soft-skills are leading to better sales performance, or which traits are driving engagement and retention.

Cangrade helps understand and predict success throughout the workforce planning pipeline.

To help understand this Cangrade has designed a simple quantitative assessment tool to measure success drivers and understand how they relate to key company outcomes. The data science at the core of our performance analytics is our proprietary psychometric *Benchmark Assessment* and predictive *Success Model*.

Benchmark Assessment

The Cangrade Benchmark Assessment is comprised of 150-200 psychometric questions that take an average of 15-20 minutes to complete.

Each scale in the Cangrade Benchmarking Assessment was developed through a broad-based review of organizational psychology research. Individual items were selected based on *convergent* validity (items are connected to key workplace outcomes like job performance and engagement), and *discriminant* validity (different items connect differently to a range of position types and levels). Scales were then iteratively tested on thousands of demographically diverse employees (e.g. industry, seniority, age, etc.) to assess clarity and reliability, and were edited accordingly.

This benchmark assessment is customizable, and additional items related to your

company's culture, values, or core competencies can be appended. We recommend, however, using our standard assessment as it has been extensively verified and are known to predict success across many jobs and industries.

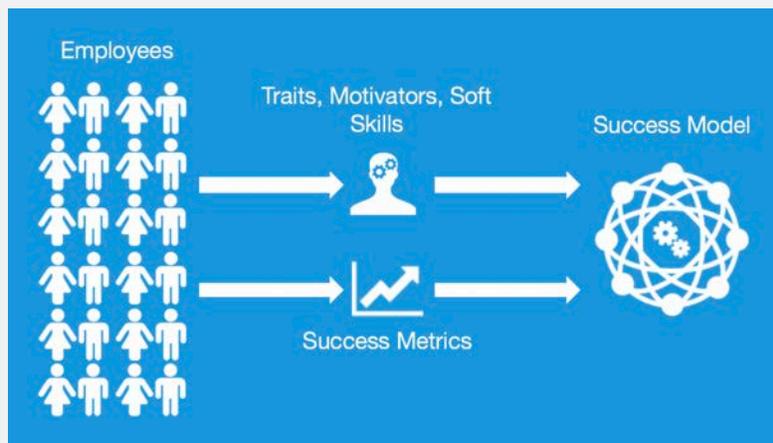
What makes Cangrade's Benchmark Assessment better than the competition?

Most other short-form assessments (under 20 minutes) only target a few aspects of a person's personality profile. Even better known assessments, such as Myers-Briggs or DISC, capture on only a handful of components. By contrast, Cangrade's Benchmark Assessment efficiently captures *more than 30 work-relevant traits, motivators and soft skills*. This allows you to uncover and explore the full range of traits that interact to drive job performance at your company—without adding time-consuming bloat to your workforce planning system.

Success Models

Each company and each position is unique, and the traits that drive success may be different from one company to the next, and from one job to another. Consequently, we have developed a three-step process to generate a picture of what success looks like at an individual company:

1. Establish outcome metric
2. Benchmark current employees
3. Generate predictive analytics



Step 1: Establish outcome metric

Different companies value different outcomes. For example, some companies are most concerned about maximizing sales numbers or customer service metrics, while some are hoping to decrease turnover and increase employee engagement. Other companies are interested in maximizing employee fit to the company's core values and culture, or in using our 360-degree performance review feature to generate a unique variable to monitor performance.

Our analytics are designed to be tailored to your company's specific definition of success, whatever it may be. The only guideline for the metric is that it should exist consistently for each person or team that will be participating in the benchmark process. For example, if the benchmark for your sales team is gross sales, your company must have the sales numbers for each salesperson on the team.

Step 2: Benchmark current employees

The Benchmark Assessment is delivered to all current employees in the company, or in a particular position of interest. Data collection is conducted online through Cangrade's cloud-based interface. This interface was designed in-house to simplify the survey process and minimize the effort of your employees. Clients provide Cangrade with a spreadsheet containing the names and emails of all participating employees. Each employee then automatically receives a personalized email link and (when necessary) reminder messages, nudging them to complete the assessment. Completion rates vary across companies, but typically range from 80-100%.

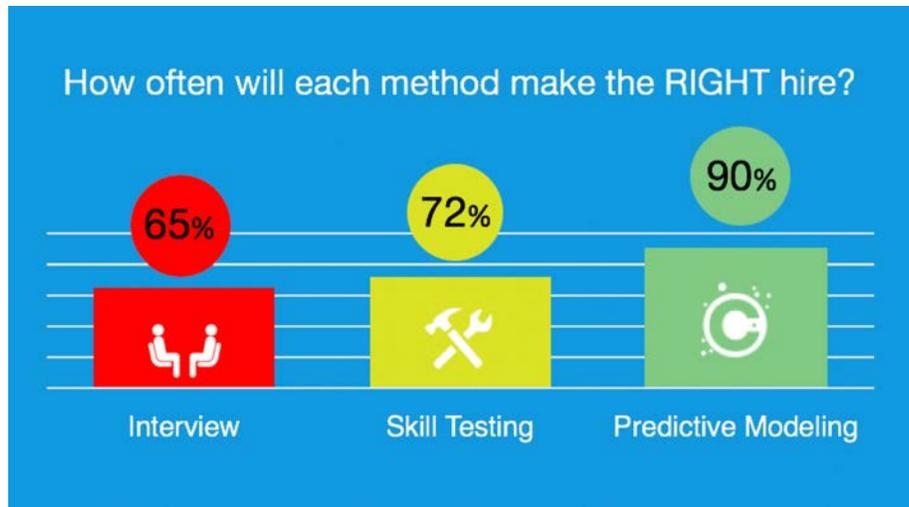
Step 3: Generate predictive analytics

Once we have completed the survey collection, regression modeling and other proprietary statistical techniques are used to link traits in the assessment with the particular outcome metrics desired by your company. This creates a multivariate statistical prediction that we refer to as a *Success Model*. Multivariate statistics rely on many different variables, integrating the influence of different factors to produce a single outcome or prediction that is more powerful than any of its constituent parts.

Because they are based on real data and advanced predictive analytics, these Success Models are powerful right from day one. Even better, our Success Models are designed to keep learning over time. As we gain more information from your company, our model updates automatically. As you hire people or as people's performance changes over time, this is monitored, and algorithms improve over time.

What makes Cangrade's Multivariate Modeling better than the competition?

Research has shown multivariate models predict key workplace success outcomes with greater accuracy.¹ Our own in-house research has confirmed that a multivariate approach to personality typically outperforms other selection approaches, including simpler algorithm-generation.



An additional advantage of a multivariate personality approach is its ability to remove disparate impact, relative to other common assessment methods. This ensures that each applicant or employee is being judged on their merit, rather than their group membership. Through the elimination of any testing bias, we are able to help companies not only hire and retain talented, motivated employees, but do so in a way that helps to build healthy, diverse teams.

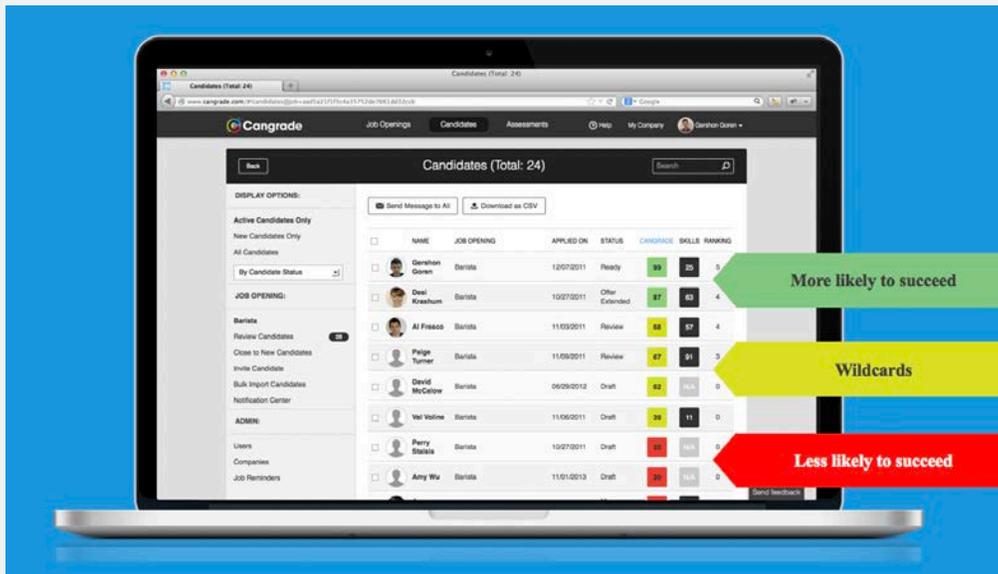
¹ Sackett, P.R. & Lievens, F. (2008). Personnel Selection. *Annual Review of Psychology*, 59, 419-50.

Hiring Analytics: Prospective Employees

Once we have created Success Models for your company, we can incorporate these analytics directly into your hiring or workforce planning process.

Pre-hire Assessments

Candidates are scored on a scale of 0-100 according to the fit of their individual answers with the Success Model. These scores are then categorized into three groups (likely to succeed, wildcards, and unlikely to succeed) to facilitate quick identification of which applicants are most likely to excel in a particular position and fit in the culture of your company.



Because these ratings leverage statistical Success Models from your benchmarking, using these scores tends to significantly improve employee selection, while also helping to prevent the disparate impact associated with some other selection methods.

Use of Cangrade's Pre-hire Assessments
can reduce mis-hires by up to 73%.

Cangrade's pre-hire assessments help avoid wasting your company's valuable time and money. Experts estimate mis-hire costs (e.g. onboarding, compensation, maintenance, severance, opportunity loss, disruption, etc.) range from 90% to 200% of the employee's annual salary.² Preventing even just a few bad hires can make a real and measurable difference to a company's bottom line.

² Cascio, W. F. (2006). *Managing Human Resources: Productivity, Quality of Work Life, Profits* (7th ed.). Burr Ridge, IL: Irwin/McGraw-Hill.

Team Fit Dashboards

With just one assessment, Cangrade can identify not only if a candidate will thrive in your company culture, but also which position or team will be the best fit. We generate different Success Models for different jobs, allowing an applicant to be evaluated for multiple positions with a single assessment completion. These same features can also be used to enrich and optimize decisions around lateral employee movements and promotions. We'll discuss this further in the section on *Performance Analytics*

Structured Interview Guide

Decades of research have shown that effective interviews must be both tailored to the job function and consistently structured. This allows for reliable and comparable qualitative data that provides a richer picture of potential hires.

Your company's Success Model can be used to help generate a customized *Structured Interview Template*, comprised of behavioral interview questions that capture core competencies for working at your company. Depending on your preferences, answers to a candidate's pre-hire assessment can also be used to further enrich the structured interview by indicating personalized follow-up questions.

Why is this beneficial to your hiring process?

Our structured interview tools have three critical benefits:

1. **Transparency.** Our technology keeps your interview process clear and consistent, to meet all legal and procedural requirements.
2. **Consistency.** Consistently structured interviews help even inexperienced interviewers conduct consistent and effective interviews every time.
3. **Efficiency.** Upload notes into our system and sync with the quantitative scoring to provide a robust picture of each candidate you consider, and to compare the answers across candidates.

Workforce Analytics: Current Employees

A successful workforce is driven by dedicated, engaged employees that contribute to your company's bottom line. This dedication and engagement is in turn driven by a

good fit with your company culture and the skills demanded by their positions.

Cangrade has tools to help you track vital engagement indicators over time, enrich employee development efforts, and propose lateral movements and promotions.

Job Engagement Tracker

Cangrade's *Job Engagement Tracker* is a 14-question supplementary assessment that allows for the inclusion of employee satisfaction and happiness into a company's Success Model. This assessment was developed through an extensive review of organizational psychology research, structured qualitative interviews with business leaders, and statistical analysis of quantitative survey responses from thousands of Americans workers across a range of companies, jobs and industries.

Cangrade's Job Engagement Tracker flags employee satisfaction drops in real time to improve retention.

When done as a snapshot, the Job Engagement Tracker provides insight into employee response to key organizational initiatives. When administered over time it serves as a comparative barometer for the satisfaction of your workforce, while also giving individual supervisors a tool to track and improve the engagement of their teams over time.

Workforce Optimization

Once your current employees have completed the Benchmark Assessment, you will have an understanding of your employee's success drivers; Cangrade then can provide the tools to turn this knowledge into action. We provide a suite of products to help your company make better decisions around lateral movements and promotions, as well as professional development tools to stimulate growth.

Professional Development Opportunities

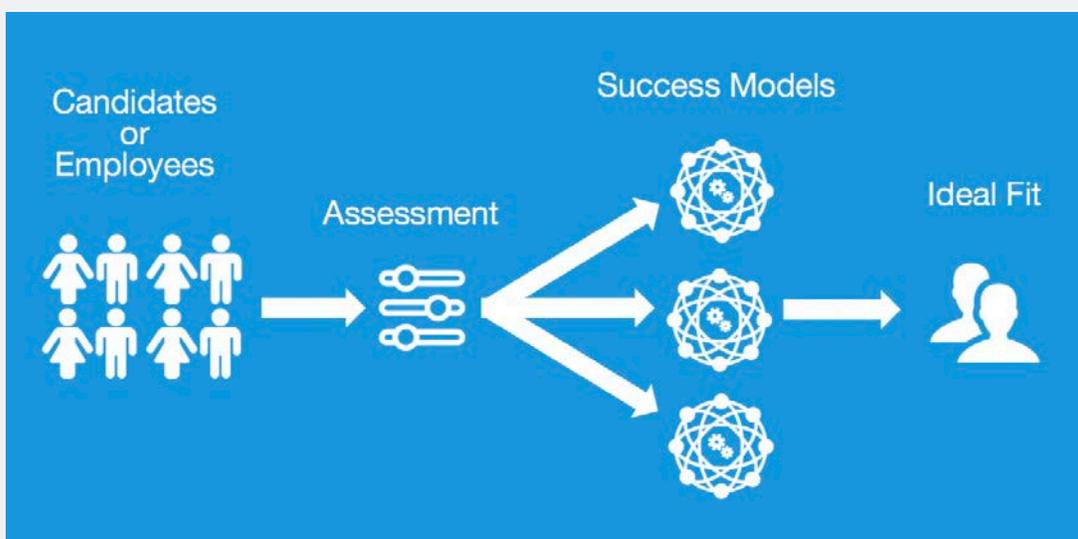
Cangrade's Success Models for your organization can be used to highlight key skills that should be prioritized for employees' professional development. For each domain identified as high impact in your company's Success Model, we can show you which

employees (and how many) are below average, so you know how to prioritize your professional development trainings.

If you need materials for these trainings, we partner with top companies like CareerBuilder.com and the Kelley School of Business to provide accessible and clear online materials that help your people build the skills they need to succeed.

Placement Recommendations

Cangrade's Success Models can also be used to help you optimize decision-making around new placement opportunities for current employees. Customized *Compatibility Reports* can be generated to help identify the best new positions or teams for each individual, whether for a lateral moves or promotions.



Whether an employee is falling short of expectations in their current position or has just expressed a request to try something new, you can see their fit to customized success models for all other positions we have benchmarked in your organization. If an employee is excelling, it is also possible to test their fit across higher positions to see if management would be a good fit for them, and if so which management role will give them the best chance of success.

Workforce Mobility Tools

Additionally, Cangrade provides workforce mobility tools to assist with internal hiring processes. When a role we have benchmarked opens up, you can quickly view all employees to see who would be a good fit for this role, and can optionally hone in

more closely on those for whom the role would yield the most value (i.e. those who are not a strong fit in their current role but would be a great fit in the new one), and those who are geographically close to the location of the new role.

Consulting Services

Our scientists are drawn from top institutions, including Harvard University, and have a wealth of teaching and research experience. Expertise areas include: Human Capital, Data Science, Organizational Psychology, Social Psychology, Software Development, Marketing, Machine Learning and Predictive Analytics.

We are always available to consult on issues related to Diversity, Employee Engagement and Development, Scientific Employee Selection, and Strategic Workforce Planning. We currently advise leadership at a range of companies, from Fortune 50 companies to non-profit organizations.