Understanding Self-Assessments

A Diversity and Inclusion White Paper

SpectraDIVERSITY

Open Minds ~ Transform Organizations

OVERVIEW

Spectra Diversity is a diversity and inclusion company providing products and tools for those working in the diversity and inclusion field. Partner Amy Tolbert, Ph.D., CSP, was the co-creator of the Discovering Diversity Profile® (DDP). From 1994 – 2015 the DDP was the only valid reliable instrument in the market specifically designed as a learning instrument that helped individuals learn how they respond to diversity issues and where they need to develop increased understanding and skills. Jonamay Lambert was the co-creator of the RespectAbility Self-Assessment Diagnostic Tool. Chris Jones is an internationally recognized writer of all forms of media. Patricia Jesperson brings her experience of working with ProGroup (now KornFerry), a national leader in Diversity and Inclusion services.

Together, our four Spectra Diversity partners have careers rich in diversity and inclusion efforts, while working with clients ranging from corporate leaders to non-profits, and from Fortune 100 companies to storied educational institutions and entrepreneurial start-ups. We are a women-owned business. We are committed to this work.

> *Our Mission: Spectra Diversity is committed to honoring differences and helping others to create a diverse and inclusive workforce.*

PURPOSE

*"The volume of your voice does not increase the validity of your argument."*

— Steve Maraboli, Unapologetically You: Reflections on Life and the Human Experience

The purpose of this white paper is to provide clarity and understanding regarding self-assessments used in the Diversity and Inclusion (D&I) space. For example, what is the difference between a self-assessment survey and a profile? Many are unclear on the importance of validity and reliability in a self-assessment. Is a dedicated self-assessment important when a few questions could simply be tacked on to an employee engagement survey?

In a world in which diversity and inclusion are gaining a sense of urgency, our hope is that we provide our readers with knowledge and understanding that can help advance organizations, managers and employees on a path toward a diverse and inclusive culture in which respect and inclusion are consistently demonstrated.

DEFINITIONS
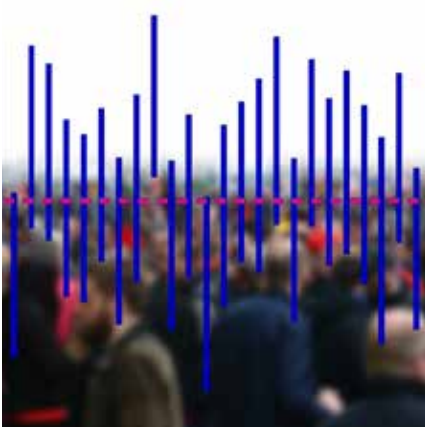
- **Self-assessment:** assessment or evaluation of oneself or one's actions, attitudes, skills and beliefs. Most self-assessments are computerized or online, although some paper and pencil versions exist.

- **Individual profile:** reporting of self-assessment results and using it to tell a story, or give an overview of self, and self in comparison to others.

- **Questionnaire:** a group or sequence of questions designed to elicit information upon a subject, or sequence of subjects, from an informant.

- **Survey:** an investigation about the characteristics of a given population by means of collecting data from a sample of that population and estimating their characteristics through the systematic use of statistical methodology.

- **Needs assessment:** a process used by organizations to determine priorities, make organizational improvements, or allocate resources. It involves determining the needs, or gaps, between where the organization envisions itself in the future and the organization's current state. Steps typically include: exploration and identification; data gathering and analysis; utilization (using the data to create a plan); evaluation (did actions taken close the gap).

- **Employee engagement survey:** a tool for gathering feedback and enhancing workplace communication. Results are categorized according to the goals/values/strategic objectives of each company. Typical engagement categories include: satisfaction; advocacy; retention; pride.

- **Validity:** a term that psychologists use to describe the relationship between an answer and some measure of the true score. "The goal of the psychometrician and the survey methodologist is to make sure the error term as small as possible, so the answers mainly reflect the true score."[1]

- **Reliability:** the degree to which an assessment tool produces stable and consistent results. Test-retest reliability is a measure of reliability obtained by administering the same test twice over a period to a group of individuals.

CONSIDERATIONS

Note that these definitions occasionally overlap in their practical application. For example, both a self-assessment and a profile can be valid and reliable, although some are neither reliable nor valid. Although most assessment tools rely upon the answers from individual employees, one group of self-assessments are inward looking (individual profiles) and seek to understand and perhaps help the individual make behavioral changes. The other group of self-assessments look outward to the organization results or goals and seek to change the organization *through* the individual.

WHAT WAS THE QUESTION?

RIGOROUS QUESTION DEVELOPMENT

Clear and meaningful questions can help spot trends, inconsistencies, data patterns and all sorts of useful information about an organization, a team, or an individual. Questions that can be interpreted multiple ways, that use unfamiliar words, or that are ambiguous in some manner, can lead to false assumptions.

WE LIKE THE LIKERT SCALE

Rigorous question development is not a new concept. One of the early pioneers of question methodology was psychologist Rensis Likert. In use since the early 1930s, the Likert Scale uses a scale of possible responses. It can be used in multiple situations, including children and ESL individuals. The good (happy face) response is typically on the right end of the spectrum in Western cultures (reading left to right).

In the diversity and inclusion field, the Likert Scale options would be used to measure opinions, feelings or beliefs.
- Strongly disagree
- Disagree
- Neither agree nor disagree (or neutral)
- Agree
- Strongly agree

When the middle option is removed, it is called a "forced choice" method, since the neutral option is removed. Using the forced choice option (four choices) does not seem to impact results either positively or negatively.

Another Likert Scale option is a frequency choice, which asks people to look at their behavior and respond by how often they act or react in a certain way. Use a frequency scale when measuring behaviors.
- Almost Always
- Frequently
- Sometimes
- Rarely
- Almost Never

A rigorous set of questions could also include questions that use reverse scoring in which a negative behavior is stated and the "good response" would be "almost never" rather than "almost always." For example:

> *"Personal characteristics, such as race, gender, age, etc. hinder an individual's career progression in this organization."*

In the example above, five points would be awarded to "almost never" and one point awarded for "almost always." Points are assigned to the Likert Scale for the purposes of data analysis.

"Personal characteristics, such as race, gender, age, etc. hinder an individual's career progression in this organization."

LESS IS MORE

Just like Goldilocks and the Three Bears, there seems to be a "just right" number of questions to include. Three questions added to an employee engagement survey is too few. Seventy-eight questions are probably too many. With too many questions, the survey participants may not finish answering the questions, or may not even start it if it looks like it will take a long time. The more a survey is set up with a similar repeated task (i.e. Likert Scale questions), the more likely the survey will be completed.[2]

Example: The U.S. Census asks 10 questions

Example: Spectra Diversity and Inclusion Profile™ uses 8 questions to measure Interpersonal Skills related to diversity and inclusion.

COLOR WITHIN THE LINES

There are certain "should" and "should not" guidelines for question construction.[3] Questions should:

■ Mean the same thing to all respondents (clear language, avoid colloquialisms, consider ESL respondents)

■ Evoke the truth (the deeper meaning you are seeking to uncover)

■ Be written at an 8th grade reading level to include all employee levels and ESL employees

■ Be able to be answered in only one dimension (one topic per question only)

■ Accommodate all possible answers (each respondent should be able to comfortably select a response from the Likert Scale)

■ Follow comfortably from the previous question

■ Real Examples:

▶ *"Management shows that diversity is important through their actions."* Succinct. Clear. One dimension measured. We like this one a lot.

▶ *"I understand what diversity and inclusion means at our organization."* Clear and succinct. Notice it is specifically asking what it means "at our organization" and not in the world, or in popular culture.

Questions should not:

■ Have mutually exclusive options (contain two concepts which cancel each other out)

■ Imply a desired answer (no leading the witness your honor)

■ Use emotionally loaded or vaguely defined words

■ Use unfamiliar words or abbreviations

■ Ask for a rating of 1-5 because simple numbers may not be clear enough. Is 1 a "never" and 5 an "always"? Or the other way around? And does a 3 mean, "I don't understand the question"?

■ Depend on responses to previous questions (you should be able to randomize the order of the questions)

"In many spheres of human endeavor, from science to business to education to economic policy, good decisions depend on good measurement."
— Ben Bernanke

> *"Corporate social responsibility is measured in terms of businesses improving conditions for their employees, shareholders, communities, and environment. But moral responsibility goes further, reflecting the need for corporations to address fundamental ethical issues such as inclusion, dignity, and equality."*
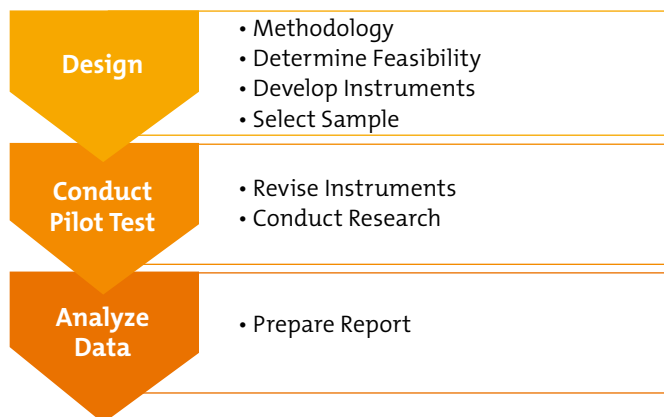> — Klaus Schwab, German Economist

■ Real examples:

◗ *"I have friends from a variety of ethnicities and abilities."* This has two variables. If someone has friends of varying abilities, but only one ethnicity, how would the question be answered?

◗ *"I don't believe that my having a friend of color means that I'm culturally competent."* The phrasing in this one is unclear. Is "don't believe" a good thing or a bad thing?

◗ *"Our organization has developed processes to hold all levels of leadership accountable for their support of the Company's diversity and inclusion efforts."* This is a properly worded question, although it would be difficult for a regular employee to answer. How would a mid-level employee know if all levels of leadership are being held accountable? And would they know the processes in place?

◗ *"Our organization's diversity/multicultural board committee meets consistently, has established meeting objectives, and regularly provides progress reports to the board of directors and/or senior management."* Too many variables in this one. One variable per question.

◗ *"Our organization is happy that it has an accurate and up to date awareness of the diversity profile of our beneficiaries and stakeholders."* Can an organization be happy? How does one know this? How is it measured?

◗ *"The profile of our employees appropriately reflects the diversity of our beneficiaries and stakeholders."* Once again, unclear. What does profile mean (age, gender, race, abilities, income level)? What does "appropriately" mean?

TIP: Avoid "don't know" types of questions unless it is a factual question. Questions without a "don't know" option produce a greater volume of accurate data.

PROCESS – PROCESS – PROCESS

Unlike item presentation which should be asynchronous, and could be randomized, item development should proceed in a sequential order or specific manner. Each step in the flow of the question creation depends upon the successful completion of all the previous steps. Some actions could loop, as additional research and testing is done. The process looks like this:

Design
- Methodology
- Determine Feasibility
- Develop Instruments
- Select Sample

Conduct Pilot Test
- Revise Instruments
- Conduct Research

Analyze Data
- Prepare Report

For example, the Spectra Diversity and Inclusion Profile began with research by experts and a list of 120+ questions that were presented to a diverse pilot group of 750 people. Some of these questions were reverse scored. The sample was statistically analyzed and revised to yield the final question set. A portion of the pilot group was given the profile a second time, and results compared to review for progress.

LARGE & STRONG VERSUS SMALL & WHIMSICAL

VALIDITY AND RELIABILITY OF SELF-ASSESSMENTS

Given a choice, most organizations would likely prefer to obtain a D&I profile based on a self-assessment that was statistically validated and reliable, rather than a questionnaire that developed with a small sample size and a lack of rigor in the questioning. It's important to understand how validity and reliability are determined.

JUST THE FACTS MA'AM

Several factors contribute to the validity of any survey instrument. In some cases, the validity is a result of all three measures. In other instances, one of these measures will suffice.

Time. How long has the survey been used? The National Institute of Health has been conducting surveys since the late 1950s. The Census Bureau has been surveying the U.S. population since 1902.

Size. How large is the sample size? There are a few online calculators to determine sample size. As time progresses, the aggregate sample size can become quite large. The Implicit Association Test (IAT) (a reaction time test) measures the strength of automatic associations

> *"I have been struck again and again by how important measurement is to improving the human condition."*
> — Bill Gates

people have in their minds, thereby testing bias. Since it was launched in 1998, the test has been taken more than 20 million times.[4]

Tested. Has the survey undergone statistical analysis and validity testing? Computer programs now do the work of spreadsheets, calculators and statisticians to provide statistical rigor for new surveys.

UNDER THE HOOD

Validity testing: SPSS is a widely-used program for statistical analysis in social science used by market researchers, health researchers, survey companies, government, education researchers, marketing organizations and others. The original SPSS manual has been described as one of "sociology's most influential books" for allowing ordinary researchers to do their own statistical analysis.[5] The "S" language is often the vehicle of choice for research in statistical methodology, and "R" provides an Open Source route to participation in that activity. "R" was used to validate the Spectra Diversity and Inclusion Profile™.

Types of statistical analyses include:
• Mann-Whitney test
• Wilcoxon rank sum
• Kruskal-Wallis test
• Wilcoxon signed rank test
• Friedman test
• Spearman's Correlation Coefficient
• Chi-squared test

SURVEY SAYS!

Here's the good news: for any company considering using a self-assessment to gather information about employees and their attitudes about the company, it should be reassuring to know that...

SELF-ASSESSMENTS PROVIDE RELIABLE AND ACTIONABLE DATA.

Recent studies, summarized below, support the concept that self-assessments are a valid and reliable means of measurement.[6]

■ Several studies conducted on ESL students (column one in the chart below) rated their English-speaking competency using a self-assessment and the tutor or teacher scores found a correlation (positive connection) between the self-assessed scores and the teacher/tutor assessed competency score.

■ A study conducted in 2010 of ESL students at the University of Michigan, showed that self-assessments (column two below) were proven to be a valid form of measurement, for any age and either gender.[7]

■ However, among some population samples (column three below), self-assessment doesn't work as well. The evidence suggests that physicians have a limited ability to accurately self-assess.[8] The processes currently used to undertake professional development and evaluate competence among physicians may need to focus more on external assessment.

ESL student study	College student study	Physician study
■ Measuring English language proficiency	■ Self- assessed competency Tested level of competency	■ Measuring level of competence
■ Self-, peer and tutor assessed	■ Self-, testing scores correlate significantly	■ Self- assessed
■ Correlation coefficient of 0.93 (p< .000)	■ Age and gender not a factor	■ Observational level of competence
		■ Low correlaton between self and observation level

The validity of self-assessments does not negate the fact that something called the **Dunning-Kruger Effect** exists. Coined in 1999 by Cornell psychologists David Dunning and Justin Kruger, it is described as a cognitive bias whereby people who are incompetent at something are unable to recognize their own incompetence.

Where the Dunning-Kruger Effect may come into play for D&I self-assessments, is for those who are on the lower end of the D&I scale. "Poor performers often show little insight into the shortcomings in their performance, presumably because they suffer a double curse. Deficits in their knowledge prevent them from both producing correct responses and recognizing that the responses they produce are inferior to those produced by others." [9]

Like the Dunning-Kruger Effect (people who believe they are better than they are) is the **Optimistic Bias**. Optimistic bias is a psychological phenomenon in which people believe they are less likely to experience adverse events than other people. It is a sunny outlook when gazing into the future. It is unrealistic optimism. An optimistic bias is a predictive concept. We believe this is not a factor for D&I self-assessments which gaze into the present, or the past, and not into the future.

Some may use the words "self-rater bias" to refer to either the Dunning-Kruger Effect or the Optimistic Bias. In terms of a D&I self-assessment, we do not believe that either of these biases significantly impact an individual's self-assessment of diversity and inclusion skills or beliefs.

IF YOU MEASURE, IT WILL IMPROVE

On balance, research suggests that self-assessments contribute to higher achievement and improved behavior.[10] The University of Toronto reported that, "The psychometric properties of self-assessment suggest that it is a reliable assessment technique producing consistent results across items, tasks and contexts and over short time periods."

Students with greater confidence in their ability to accomplish a targeted task were more likely to visualize success than failure. This caused them to set higher standards of performance for themselves. Student expectations about future performance could thereby influence effort.

A study of college students showed similar results. The study found that self-assessment increased the interest and motivation level of students, leading to enhanced learning and better academic performance, as they developed critical skills to analyze their work.[11]

So, by the simple fact that "something" is measured, the "something" shows improvement.

In terms of diversity and inclusion, self-assessment measurement can raise consciousness about diversity and inclusion (and self) as an issue to be addressed.

TIP: If you'd like to make diversity and inclusion improvements in your organization, don't wait to measure. The simple fact that you measure may increase/improve the interpersonal skills and beliefs of employees.

I'LL JUST MODIFY THIS OTHER THING

EMPLOYEE ENGAGEMENT SURVEY V. SELF-ASSESSMENT PROFILE

Organizations, government entities and educational institutions may be tempted to modify an existing employee survey to include diversity and inclusion by adding a few questions. When budgets are tight, this is an understandable impulse. Be aware however of three factors which may dissuade an organization of pursuing this method:

■ A few questions are unlikely to provide meaningful data (see "Just the facts ma'am" section above);

■ An employee engagement survey and a self-assessment profile are two entirely different animals (see "Profiles in action" section below);

■ A survey informs the organization whereas a profile informs the individual.

PROFILES IN ACTION

Self-assessment profiles can shed light on an individual's skills, abilities and talents. The difference between an employee survey and a self-assessment profile is essentially this:

EXAMPLE: MYERS-BRIGGS V. DISC

Carl Gustav Jung (basis for the Myers-Briggs Type Indicator or MBTI) sought to explain why people differ from one another by identifying fundamental personality traits or preferences rooted in biology. You don't change personality, but it can help you change behavior if you understand where it's coming from.

William Moulton Marston. (creator of the theory of behavior behind DiSC) sought to explain how people adjust to varying environments, by starting with their emotional response to it and relating this response to behavior. DiSC provides information for individuals to make a conscious choice to change behavior to improve results.

While the MBTI can be helpful in recognizing your personality style, a DiSC assessment provides actionable data and information for individuals. The underlying

philosophy of the DiSC assessment and approach is that understanding yourself is the first step to understanding others.

Both self-assessments measure personality dimensions, although a little differently. The primary difference to individuals is the report which accompanies the self-assessment.

DiSC describes behavior based on how people view themselves in their various environments. The Myers-Briggs Type Indicator (MBTI) describes how people approach the environment intellectually and attitudinally and how they process information.

The profiles obtained from each instrument cannot be expected to be correlated. They were designed for different purposes and based on different views of human behavior. Because the two instruments provide different kinds of information, they might very well augment each other as separate views of the same individual.

I SEE WHAT YOU DID THERE

THE IMPORTANCE OF ANONYMITY

"Making privacy assurances to participants is one of the requirements of informed consent in psychological research, where participants are told that their information is anonymous and/or confidential. Survey researchers often make distinctions between these two concepts, and many past studies have been designed around the premise that anonymous and confidential (de-identified) experimental conditions will yield different outcomes. However, are participants making the same conceptual distinction, or are they interpreting these two concepts as a single construct? One study demonstrated that respondents to a Web-based survey were able to distinguish appropriately between anonymity and confidentiality in different experimental conditions."[12]

- Perceived anonymity: "the degree to which the identity of a message source is unknown and unspecified; thus, the less knowledge one has about the source and the harder it is to specify who the source is among possible options, the more anonymity exists."[13] When a political pollster calls to ask how you're intending to vote, that is perceived anonymity – even though the pollster has your name and phone number.

- Perceived confidentiality: "this often means that information about individuals is protected from inadvertent disclosure to others by physical means, such as a locked cabinet, legal means, such as signed confidentiality statements, or methodological means, such as the use of coded files."[14] When you give your medical history to your physician or clinic, that is perceived confidentiality– even though your doctor knows you by name.

"Whether we are based on carbon or on silicon makes no fundamental difference; we should each be treated with appropriate respect."
— Arthur C. Clarke, 2010: Odyssey Two

For example, the Spectra Diversity and Inclusion Profile™ is confidential. Spectra Diversity knows who the respondents are, and the respondent has a reasonable degree of certainty that data shared with the organization are only shared in the aggregate (non-identifiable) form. To this end, any demographic data for example with nine or fewer respondents will not be shared.

A 2-step verification process is one means to provide a higher level of perceived confidentiality. It is the process that a bank or other financial institution uses to have you create and then sign in to an account.

"It is the responsibility of the researchers collecting data to ensure that steps have been taken to prevent the accidental disclosure of data, and accordingly, researchers

Employee Survey	Self-assessment Profile
Measures the organization	Measures the individual
Comparisons are internal (previous years, other departments)	Comparisons are external (U.S. norms)
Change implemented by management	Change implemented by the individual

are obligated to make assurances to respondents that adequate security measures have been taken."[15]

Evaluation apprehension, originally defined by M. J. Rosenberg in 1965 is "an active, anxiety-toned concern that [the subject] win a positive evaluation from the experimenter, or at least that [the subject] provide no grounds for a negative one." [16]

When an individual perceives a survey as confidential, he or she will have less concern for social evaluation.

A study of 410 college students revealed that in a survey condition for which respondents' identities were known, respondents understood that their information was not anonymous, but confidentiality was still guaranteed to some extent by the privacy assurances made to them.[17]

"Evaluation apprehension was shown to be significantly and negatively related to confidentiality perceptions, but not significantly related to anonymity perceptions."[18] So, when people are completing a survey or self-assessment, not only can they tell the difference between anonymity and confidentiality, but their ratings do not differ by any significant amount.

JUST DO IT!

LINKING PROFILES TO ACTION/ENGAGEMENT

A self-assessment profile may raise the consciousness of the individual taking the survey, and increase awareness, thereby improving behavior by some small amount. More importantly, a D&I profile can provide action steps for either an induvial or an organization, or both.

A Diversity and Inclusion self-assessment profile can:

■ Reveal an organization's perceived commitment to diversity and inclusion

■ Indicate action items that those heading the effort internally would like to address because of the organization's results

■ Determine Individual development opportunities to focus training efforts based on the findings

■ Help individuals by increasing awareness of their personal cultural lens and how that lens impacts others around diversity issues

THE NITTY GRITTY

MEASUREMENT IN THE D&I WORLD

KEY FINDINGS FROM PEOPLE FLUENT 2015

■ D&I challenges are consistent among organizations. If your organization is facing lack of budget, difficulty working across functional areas and a lack of accepted D&I benchmarks, you're not alone.

■ HR is often responsible for D&I initiatives. Other areas that typically integrate with D&I efforts are employee engagement, talent acquisition and learning and development.

■ Vendor usage depends on D&I maturity. One in three companies uses D&I vendors to accomplish stated objectives.

■ Measurement is key to successful diversity strategy. More than half of all organizations have been attempting to do something D&I related for at least four years. One of the areas which has been tracked consistently is workforce demographics. This tells an organization about diversity, but does nothing to measure inclusion.

■ Effective organizations track more, measure more and reward more. "Advanced organizations have successfully used D&I metrics to make the business case for culture change."[19]

TOP BARRIERS TO D&I SUCCESS

■ Lack of reliable benchmarks (42%)

■ Lack of budget for D&I resources or initiatives (41%)

■ Difficulty working cross functionally (40%)

■ Lack of resources (39%)

■ Difficulty demonstrating impact of previous efforts (39%)[20]

MEASUREMENT IN THE D&I WORLD

INDIVIDUAL

To understand others, it is important to begin with understanding yourself. This self-awareness can help you become more sensitive about how your behavior might affect others. The Spectra Diversity and Inclusion Profile™ also assesses respect for others. When you display openness and non-judgmental behavior it demonstrates that you value the diversity of others in the workplace. In turn, behavior is directly influenced by your self-awareness and interpersonal skills. By being self-aware, you can identify your belief system that drives your behavior. By understanding that, you can further choose to adapt behavior to be more inclusive of others in the workplace.

The profile measures the following:

■ Beliefs (self-awareness and personal beliefs related to diversity and inclusion)

■ Interpersonal skills (putting inclusion into action)

ORGANIZATION

Knowing where the organization's commitment lies on diversity and inclusion matters greatly. An organization that recognizes how diversity and inclusion directly impacts employee engagement and innovation is a forward-thinking, inclusive organization. When employees believe their organization is invested in diversity

and inclusion efforts and that all stakeholders (employees, customers, partners) feel welcomed, valued, respected and heard, the result is a more engaged workforce. Organizations benefit by seeing an increase in productivity, innovation and morale.

The profile measures the following:

- Management (how management sees itself and how management is seen by employees in terms of diversity and inclusion)

- Culture (the organizational norms and beliefs)

- Policies, Practices and Procedures (3Ps) (how diversity and inclusion efforts are put into practice on an organizational level)

NEXT STEPS

MOVING THE NEEDLE

A Spectra Diversity client asked one of our partners for a program to deal with their racial bias issues. After surveys, focus groups and study of their employee population, it turned out that the organization's problem was not racial in nature – it was generational.

If you don't know where you are – it's hard to develop a path forward. The purpose of this paper is to provide clarity and understanding regarding self-assessments used in the Diversity and Inclusion (D&I) space, and we hope we've done so.

We agree with PeopleFluent when they say, "To drive long-term, sustained change, [organizations] need to **continually analyze** the diversity of their workforce, **identify gaps** across people processes, and **develop and execute** D&I strategies that evolve their workforce toward their diversity goals."[21]

When an organization gathers a baseline measurement of diversity and inclusion perceptions, it can then develop a plan and execute on that plan to increase D&I throughout the entire organization, rather than as a stand-alone effort. To develop a diverse and inclusive organization you must:

- Align D&I goals to organization's strategic goals

- Invest in an assessment process and training that will give you a quick and measurable impact

- Create training timeframes that works for your organization

- Inspire behavior change in participants, by engaging them in learning with experiential learning

Measurement is key. It's never too late to start.

"Every line is the perfect length if you don't measure it."
— Marty Rubin

Sources

1. Fowler, "Survey Research Methods", 5th ed. Sage Publications, 2014, page 13.

2. Fowler, ibid., page 105.

3. Walonick, David S., "Survival Statistics", StatPac Incorporated, 6 ed., July 24, 2013.

4. Joseph, Nancy, "Implicit Bias and the Presidential Election", University of Washington, College of Arts and Sciences, November, 2016, retrieved on June 22, 2017 from https://artsci.washington.edu/news/2016-11/implicit-bias

5. Nie, Norman H., Dale H. Bent, Hadlai Hull, "SPSS: Statistical Package for the Social Sciences", McGraw-Hill, 1970.

6. Mistar, TEFLIN Journal, Volume 22, Number 1, February 2011.

7. Mistar, ibid.

8. "Accuracy of Physician Self-Assessment Compared With Observed Measures of Competence A Systematic Review", JAMA, 2006.

9. Schlössera, Thomas, David Dunning, Kerri L. Johnson, Justin Kruger, Journal of Economic Psychology, Volume 39, December 2013, Pages 85–100.

10. Ross, John A., "The Reliability, Validity, and Utility of Self-Assessment", Practical Assessment, Research & Evaluation, Volume 11, Number 10, November, 2006.

11. Thawabieh, Ahmad M., "A Comparison between Students' Self-Assessment and Teachers' Assessment". Journal of Curriculum and Teaching, Volume 6, Number 1, 2017.

12. Whelan, T.J., "Anonymity and confidentiality: Do survey respondents know the difference?", Society of Southeastern Social Psychologists, Durham, NC, October, 2007.

13. Whelan, ibid.

14. Whelan, ibid.

15. Rosenberg, M.J., "When dissonance fails: On eliminating evaluation apprehension from attitude measurement", Journal of Personality and Social Psychology, Volume 1, pages 28-42.

16. Whelan, ibid.

17. Whelan, ibid.

18. PeopleFluent, "Measuring Diversity for Success", 2015.

19. PeopleFluent, ibid.

20. PeopleFluent, "Diversity & Inclusion in High Tech: Three Key Strategies for Promoting an Inclusive Workplace", 2017.

FOR MORE INFORMATION

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