Identifying Fleet Driver Safety Risk Factors by Assessing Attitude, Values & Personality

Background: *TalentClick and the largest privately-owned bus transportation company in Canada collected a research data sample to determine the relationship between attitude, values and personality and high-risk driving behaviors in order to predict and decrease road incidents.*

The Company' objectives were to:

1. To establish which personality characteristics in drivers and operators are linked to behaviors and outcomes such as safety incidents, collisions, speeding, moving violations, absenteeism, tardiness and company rule violations.

2. To help create a business intelligence tool which can be used to:
   - help hire safer drivers
   - help train & coach existing drivers

Data Analyzed:

- 5 divisions in the company participated with a total of 115 driver participants.
- TalentClick collected job performance data and driver safety-incident data involving any of the 115 drivers.
- TalentClick analyzed safety incidents, job performance ratings and telematics data in relation to assessment scores on 19 behavioral traits.

About the AVP

TalentClick specializes in workforce analytics and online behavioral assessments. Our assessments provide business intelligence to help organizations make better decisions in hiring, training, and performance management. The solution utilized in this research study is called the AVP (Attitude, Values, Personality) which creates actionable hiring and coaching insights from a number of different reports, all derived from one 10-15 minute questionnaire.

1. DSQ (Driver Safety Quotient)
2. SQ (Safety Quotient)
3. WPP (Workstyle & Performance Profile)
4. WVA (Work Values & Attitude)

FINDINGS

'CONTENTED' DRIVERS have a

6x

higher **Preventable Collision Rate**

'DISTRACTIBLE' DRIVERS have

6.9x

more Delays

'Impulsive' DRIVERS HAVE

2.2x

more **Speeding Events**

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Highlights of Findings

The data analysis involved examining the relationships between the TalentClick assessment data and the driver safety incident data.

1. Drivers with certain personality traits have elevated levels of risk for:

- o Problematic telematics data (lane handling, acceleration, speeding, cornering).
- o Problematic job performance (complaints, absenteeism, lateness, poor safety scores).

2. Job Performance Ratings were shown to be a valid measure of driver performance.

- o Contentedness & Impatience were linked with under performance.

3. An 'Ideal Profile' based on this analysis can be used for driver hiring and training

Incident Type #1 – Tardiness

- Drivers who scored high on the 'Distractible' dimension had a 'Late to first stop' rate that was 6.9 times higher than others (588% higher tardiness rate).
- Drivers who scored high on 'Impulsive' had a 'Late to first stop' rate that was 5.6 times higher than others (463% higher tardiness rate).

Incident Type #2 – Complaints

- Drivers who scored high on the 'Contented' dimension had a complaint rate that was 6.2 times higher than others (523% higher complaint rate).
- Drivers who scored high on 'Distractibility' dimension has a complaint rate that was 2.6 times higher than others (159% higher complaint rate).

Incident Type #3 – Performance

- Drivers who scored high on the 'Contented' dimension had a performance rate that was 4.3 times lower than others (325% lower Performance rate).
- Drivers who scored high on the 'Impatient' dimension had performance rate that was 2.8 times lower than others (184% lower Performance rate).

Incident Type #4 – Preventable Collisions

- Drivers who scored high on the 'Contented' dimension had a preventable collision rate that was 6 times higher than others (500% higher preventable collision rate).

Highlights of Findings - Telematics Data

The data analysis involved examining the relationships between the TalentClick assessment data and historical driver safety incident data provided by the company.

Lane Handling

- Drivers who scored high on 'Distractibility' had a telematics history of improper lane handling that was 6.3 times higher than average (529% higher telematics improper lane handling score).

Speeding

- Drivers who scored high on 'Impulsive' had a telematics history of speeding that was 2.2 times higher than average (121% higher telematics speeding score).
- Drivers who scored high on 'Impatient' had a telematics history of speeding that was 1.7 times higher than average (69% higher telematics speeding score).

Acceleration

- Drivers who scored high on 'Impulsive' had a telematics history of excessive acceleration that was 2.9 times higher than average (187% higher telematics acceleration score).

Patterns in Analysis

Using Workforce Insights To Create an "Ideal Profile"

Through analysis, the Company learned that by hiring more "ideal profile" employees who are less **Impulsive, Distractible, Contented, Irritable and Rule-Resistant**, they could improve the safety of their workforce, saving time, money and lives. The Company gained:

Benefits # 1

A clear view of which personality traits were most strongly linked to driving incidents, near misses and property damage. Knowing these risk factors helps ensure the most effective hiring, training, coaching and development programs are available.

Benefits # 2

A better understanding of how to develop workers by identifying potential challenge areas with the DSQ™ and providing tailored coaching and development skills to compensate for performance "gaps."

Benefits # 3

An understanding of the overall level of personality safety risk and which drivers or teams require the most attention to optimize performance.

Recommendations for Moving Forward
Using Workforce Insights To Make Better Hiring & Training Decisions

1. Use Dimensions to Make Personnel Decisions

Consider training, coaching and self-coaching initiatives that emphasize key dimensions.

2. Develop "Ideal Profiles" of High Performing Employees

Consider setting "Ideal Profile" ranges for specific job types to screen job applicants.

3. Optimize Job Performance Ratings

Investigate the guidelines for the Job Performance Ratings to ensure that they are as fair and objective as possible and fit the data-driven "ideal job profile."

4. Analyze Long-Term Patterns

We strongly recommend further data analysis to identify long-term trends. This would produce a more complete data set that can be used to guide holistic human resource policies and safety programs.

Recommendations for Hiring:

1. Assess ALL driver candidates.

2. Exercise caution with candidates who have scores outside the Ideal Profile.

3. Use personalized interview questions to probe potential problem areas.

Recommendations for Training and Coaching:

1. Use the assessment as a training and post-incident tool.
2. Use the assessment results to guide extra training and coaching.
3. Provide Participant copies of results to drivers for self-awareness.