



# AQ Validation Studies

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## Client: ADC Telecommunications

### Sample

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237 sales professionals across the U.S., Europe, Asia, and Latin America

### Overview

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This study examined the predictive strength and overall influence of AQ regarding performance, morale, and retention in a highly volatile, extremely demanding global business.

ADC Telecommunications was facing unprecedented challenges in the global telecom market. The company hired PEAK Learning to assess and strengthen the AQ of its global sales force. ADC's goal was to determine the potential predictive strength and, ultimately, the effect AQ could have on its people. This longitudinal study tracked sales professionals over 3 years, with a particular focus on the AT&T Global Sales Team, because of its size and strategic importance to the business.

## Results

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**Retention:** Predicted, desirable retention improved 74 percent.

**Sales Performance:** AT&T Global Sales Team rose from “moderate performer” to win the Chairman’s Award for Top Sales Team of the Year. Sales rose from below quota (before program) to 230% and 147% of quota in succeeding years.

**Attrition:** One’s reported intention to leave the job within 6 months—dropped from 73% to 19% of the entire sales organization, a significant reduction

## Timeline

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- Year 1— The AT&T Global Sales Team is rated “Moderate Performers” by the Global VP of Sales
- Year 2— AT&T Global Sales Team surpasses quota by 230%, so quota is doubled for Year 3.
- Year 3— AT&T Global Sales Team surpasses quota by 147%, and is voted Top Sales Team of the Year.

## Client Comments

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“AQ improves morale, gets people back on course rapidly to move forward in the areas in which they view a sense of control and impact.”

—Phillip R. Styrhund, Global Vice President of Sales, ADC  
Telecommunications

## Client: AT&T (Formerly BellSouth)

### Sample

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An outbound sales call center for BellSouth — 76 sales associates

### Overview

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AQ training was conducted for the outbound sales call center in a major retail market in the U.S. during September 2004. The center was underperforming and failing to meet its financial goals; there was also a somewhat pervasive sense of apathy among the associates who had been facing increasing complexity, demands, uncertainty, and adversity. The objectives of the training were to turn around sales, performance, and customer service by equipping associates and their leaders to respond more effectively to all forms of adversity, challenges, and obstacles. This analysis was based upon the quantitative revenue outcomes and the qualitative leader and employee feedback following the program. Based on the results, the program was expanded to all Outbound Sales Call Centers for 2006, in anticipation of BellSouth's historic, \$76B merger with AT&T.

### Results

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According to top leaders, the following outcomes were achieved and attributed largely to the AQ training. Note that these results were achieved despite a major hurricane, which historically would have caused a substantial decline in revenue and other performance indicators.

#### Quantitative Outcomes

- 44.7% increase in overall booked revenue from September 2004 to September 2005, the highest growth of any of the peer centers
- 45.0% increase in overall booked revenue from September 2005 to September of 2006, the highest growth of any of the peer centers
- 109.9% increase in overall booked revenue for the two-year period of September 2004 to September 2006
- Attrition was approximately 25 percent lower among those who completed the AQ program compared to those who did not

#### Qualitative Outcomes\*

- Improved overall engagement in their work and an increase in peer accountability
- Leaders equipped to continue using tools with their teams to sustain the AQ advantage
- Improved morale, energy, optimism
- Better attitude toward change
- Less whining and fewer excuses
- Long-term, seasoned employees reporting this to be the best and most valuable learning experience of their careers
- Ongoing use of the AQ language and tools many months after the official program
- Dramatic, moving stories of how this has affected people, personally and professionally

\* As reported by senior leaders and team members as a result of the AQ training.

## Client: CellularOne / SBC

### Overview

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CellularOne was facing intense talent wars, cutthroat competition, and diminishing profit margins as their products and services became increasingly commoditized and difficult to differentiate. PEAK Learning was hired to see if AQ could help them answer key questions: How do we predict who sells more, or less? Who is more likely to sell more, and sell more profitably? How do our sales managers compare to the people they lead? Who is more resilient?

This study examined how well AQ predicted three gauges of sales performance: percent of topline sales, percent of quota, and percent of net. It also compared the AQs of sales managers with the general sales force.

### Results

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AQ proved to be a valid, robust predictor of all three performance gauges. As with previous studies, sales managers had higher average AQs than their sales forces.

- **Percent of topline sales:** Those who measured in the top half of AQ scores delivered 166 percent more to topline sales, on average, than those who scored in the bottom half of AQs
- **Percent of quota:** Those who scored in the top half of AQs achieved 106 percent more of quota than those in the lower half of AQ scores
- **Percent of net:** Those in the top half of AQ scores sold 150 percent more, on average, than those in the bottom half of AQ scores
- **Mean AQs:** sales managers = 154, low performers=137, top performers=150

## Client: Deloitte & Touche

### Sample

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124 new experienced hires

### Overview

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D&T had three goals: to assess the relationship of AQ and performance, to improve the performance and retention of its new hires, and to determine if higher-AQ professionals tend to be promoted sooner. D&T used a four-tier performance-rating system for all employees. This initial study also explored the predictive validity of AQ within D&T.

### Results

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AQ correlated positively with, and was a predictor of, performance and promotion at D&T. Higher-AQ individuals outperformed and were more likely to be promoted than their lower-AQ counterparts. Findings were statistically significant. Note that the middle two levels of performance were combined because the sample for each category was too small.

<b>Performance Category</b> .....	<b>AQ Mean*</b>
SEE Significantly Exceeding Expectations .....	162
EE Exceeding Expectations .....	149
ME Meeting Expectations.....	149
MSE Meeting Some Expectations .....	144
Average AQ of those promoted .....	161

\*The international mean for AQ is 147.5<sup>1</sup>

### Client Comments

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“We are seeing something powerful as our new experienced hires implement their knowledge of AQ. Turnover is down, and new hires face the obstacles and setbacks in their new environment with greater agility, fortitude, and resilience than ever before. That translates very positively to the bottom line.” —Director of Human Resources

<sup>1</sup> Version 6.0 of the AQ Profile had a mean of 147.5. The mean, range, median and mode on the current version, 8.1 is different. The two versions should not be directly or statistically compared.

## Client: Diversified Collection Services

### Sample

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450 employees at three different locations

### Overview

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At DCS, the largest loan collection agency in the U.S., performance is measured by collection percentage / cents on the dollar collected per contract. DCS wanted to explore to what extent AQ predicted performance. It created a rating system for employees, rating each person from 1–4 on overall performance, based on some tight definitions for each category. Top performers were assigned a "1"; the lowest performers were rated as "4."

### Results

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AQ predicted performance at DCS, with top performers having statistically higher AQs than lower performers. The following correlation was found between AQ in the top three performance categories:

<b>Mean AQ Score</b>	<b>Performance Rating</b>
164	1
157	2
150	3

### Comments

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DCS believes that AQ has / greater relevance and validity than its current psychological measures used in hiring. As a result, it has replaced existing instruments with the AQ Profile as it begins to grow its workforce.

## Client: Major Global Technology Company

### Sample

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151 senior and executive level leaders

### Overview

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Understanding the need for high-performance leadership, leaders completed the one-day AQ program followed by a 90-day, weekly web-based AQ reinforcement program. This company sought to measure several variables beyond AQ and CORE, among them being perceived stress, level of engagement, perceived control, and one's ability to cope with adversity.

### Results

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The mean AQ score for this group rose from a 151.9 to a 168.5, or from "moderate" to "moderately high." Statistically significant correlation between one or more of the CORE dimensions of AQ and the items listed above with one exception:

- **Stress on the job.** 14% decrease in those reporting "a lot" or "maximum stress" in their job (statistically significant); post-training, no one reported "maximum stress"
- **Engagement.** 11% increase in those who felt "highly" or "extremely highly" engaged. This number was already high in the pre-survey, therefore this increase is not statistically significant
- **Coping with adversity.** 43% increase in those who agreed or strongly agreed that they possessed the skills, knowledge, and abilities to thrive in an environment of constant change
- **Stress management.** 42% increase in those who agreed or strongly agreed that they manage stress in ways that enhance their effectiveness in their job
- **Control over factors that affect stress.** 45% increase in those who felt that they could "mostly" or "completely" influence the factors that affect their stress, energy, and engagement in their job
- **Stress associated with greatest challenge.** 57% decrease in those who perceived their greatest challenge as "highly" or "extremely" stressful. 36% increase in those who saw their challenge as "hardly stressful" or "not stressful at all"

## Client: Major UK Insurance Company

### Sample

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1,130 subjects completed the AQ Profile and health survey questions

### Overview

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AQ theory would predict that high-AQ people would perceive themselves as being healthier, taking fewer prescription medicines, and feeling more fit, energetic, happy, optimistic, successful, and lucky. They would also engage in more exercise, experience less stress, and feel more satisfied with their jobs. To test these predictions, a 29-item questionnaire was included with the AQ Profile. The questions covered the subject's perception of specific personal health factors (digestive system, respiratory system, cardiovascular system, muscular-skeletal system, stress, fitness, energy, diet, and general health), use of prescribed medicines, exercise, perceptions of happiness, optimism, hardship, luck, success in life, and job satisfaction.

### Results

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AQ correlates strongly with many health, life, and work factors.

**AQ and perceptions:** AQ correlates significantly with an employee's perception of his or her health, fitness, quality of life, job satisfaction, and other health-related, happiness-related, and job-performance aspects of life.

**AQ and attendance:** AQ scores demonstrate excellent validity as a reflection of employee work attendance:

- They correlate significantly with days absent from work and with the number of absentee occurrences; the higher the employee's AQ, the fewer his or her absences.
- They show that high-AQ employees (those who score in the top 10% – 25%) are absent fewer days and less often than low-AQ employees (those who score in the bottom 10% – 25%). The differences are statistically significant and quite large.

### More Information

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To learn more about this groundbreaking study, visit our Downloads page to access a document entitled "AQ Profile—Technical Supplement."

## Client: MP Water Resources

### Sample

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Top 60 company leaders

### Overview

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MP Water Resources has branches in 11 states, including Florida, where it is the largest water utility. Leaders had their AQs measured and then received training to enhance their AQ and performance. Three follow-up measures of AQ were conducted. Each person was rated by his or her supervisor on performance on a scale of 1–10, with 10 being the highest. The initial AQ training was 1.5 days. The Phase 2 training, 6 months later, lasted one-half day.

### Results

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AQ both correlated with and predicted performance at MP Water Resources.

<b>Mean AQ Score</b> .....	<b>Phase</b>
132 .....	Initial Scores
154 .....	One
172 .....	Two

<b>Mean AQ Score</b> .....	<b>Performance Rating</b>
142 .....	9–10
136 .....	8
129 .....	6
124 .....	6 or less

### Client Comments

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“I have witnessed a fundamental improvement in how my people deal with challenges, setbacks, and adversity. As my company has been besieged with record rainfalls, droughts, and statewide fires, the AQ training has not only visibly strengthened our people, it has dramatically impacted the bottom line.” —Chief Executive Officer

“I have seen a significant shift in people’s mindsets, a willingness to step up to challenges, readiness to take ownership, and a propensity toward decisive action. I continue to seek meaningful ways to integrate AQ deeper in the MP Water Resources culture.” —Human Resources

## Client: Nonprofit Organization

### Sample

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85 individuals from a population of 600

### Overview

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Given the magnitude, cost, and nature of change in organizations today, Ph.D. candidate Guy Langvardt decided to examine the relationship between AQ and an individual's retention and commitment to change. The study was conducted within a nonprofit that was experiencing turbulence. It used the AQ Profile®, Herscovitch's and Meyer's Commitment to Change (CTC) survey, as well as some predictive questions. This is the first study of its kind.

### Results

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- AQ was found to predict both retention and commitment to change
- Ownership proved the most robust in predicting commitment to change
- Control, Ownership, and Endurance proved most predictive of some facet of commitment to change and/or retention
- Overall, higher AQ individuals take more ownership and they are more engaged and committed to change than their lower-AQ counterparts
- The AQ Profile correlated positively with affective commitment ( $r=.394$ ) at the 0.01 level (2-tailed) and with the Commitment Profile ( $r=.387$ ) at the 0.01 (2-tailed) and ( $r=.150$ ) 0.00 levels
- Ownership correlated positively with the Commitment Profile ( $r=.251$ ) at the 0.00 level; endurance correlated positively with the Commitment Profile ( $r=.094$ ) at the 0.005 level

### Reference

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*Resilience and Commitment to Change: A Case Study of a Nonprofit Organization* by Guy D. Langvardt, Ph.D. Candidate, Capella University, March, 2007

## Client: Starwood Vacation Ownership

### Sample

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Complete VPG and AQ data were available for 561 people from marketing and sales from all sites. The total number of people in sales was 365; the total in marketing was 196.

### Overview

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A true sales predictor would have tremendous performance, cost, and bottom-line implications for Starwood Vacation Ownership. Consequently, the company conducted an internal analysis and counted 26 factors that might affect sales performance. One of these factors was Adversity Quotient® or AQ®. This independent study examined the relationship between AQ and Starwood's primary performance indicator — volume per guest (VPG) — for its sales and marketing staff.

### Results

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Despite the resulting complexity in predicting and potentially influencing VPG, AQ turned out to be a robust predictor of this performance metric for both sales and marketing. There is a positive, statistically significant correlation between AQ and VPG across the population. □□

- For sales, those in the top quartile of AQs sell 43 percent more than those in the bottom quartile of AQs, on average
- For marketing, those in the top quartile of AQs sell 30 percent more than those in the bottom quartile of AQs, on average
- AQ and mean AQ varied significantly across portals □
- AQ accounts for about 12 percent of the median VPG across the sales portals, a substantial value □□
- The dimension Reach was most predictive for sales VPG
- The dimension Control was most predictive for marketing VPG □□
- As is typical for a sales-related function, the average AQ of this group (160) was substantially above the global average from all functions (147.5 for version 6.0) but not as high as some top-performing sales groups (mid 170s)

## Client: Sun Microsystems

### Sample

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120 account executives and sales managers from the Western U.S.

### Overview

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This study examined the extent to which AQ or its CORE dimensions predicted sales performance in adverse times. It also assessed the extent to which training improved AQ and CORE, as well as the relationship between improvement and overall performance. Two methods were used to measure performance — a general rating scale and sales as a percentage of quota.

### Results

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- AQ is a robust predictor and driver of performance and sales resilience
- AQ training substantially improves overall AQ and CORE profiles
- AQ helps drive sales results, especially in demanding markets / industries

**Mean AQ Score .....AQ Measurement**

151 ..... First

183 ..... Second

## Client: SunTrust

### Sample

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251 participants

### Overview

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This study assessed the relationship between AQ and performance at SunTrust — specifically, the validity of AQ in predicting the financial performance of individual branch managers and bank branches. This study therefore explored the degree of correlation between AQ, AQ dimensions (CORE), and the performance statistics used with SunTrust In-store Banking. Performance appraisals and financial information were provided to PEAK for the SunTrust In-Store Banking division. The confidential data was analyzed by an independent statistician, who considered overall AQ, AQ-dimensions (CORE), talent ratings, job classification, length of time in the current position, and various demographic variables, as well as the financial performance indicators for each branch.

### Results

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**Correlation:** There is a statistically significant correlation between AQ and performance at SunTrust.

**Branch Performance:** There is a statistically significant correlation between AQ and financial performance of SunTrust's individual branches or stores. Branch managers with AQs in the top decile were 81 percent more likely to have top-performing branches (those in the top 20 percent of all branches on profitability and growth). Those with AQs in the bottom decile were 76 percent more likely to have a bottom-performing branch (those in the bottom 20 percent on profitability and growth). According to SunTrust, AQ was the only factor that proved statistically significant in predicting the financial performance of the branch.

**SunTrust AQ:** This sample of individuals had a lower AQ than the U.S. and international means on AQ.

**Overall AQ:** The top half of the respondents had an AQ score of 156.3 compared to a score of 134.3 in the bottom half.

**Performance:** Because AQ correlates with performance, there is a significant difference of talent rating between the top half and bottom half of AQ (2.7 versus 2.9).

**Reach:** The strongest correlation between talent rating and AQ was within the Reach dimension.

**Adverse Impact:** For version 6.0 of the AQ Profile® (the “Adversity Response Profile™”) this analysis showed no “adverse impact” for specific groups such as ethnicity, age, gender, etc.

**Retention:** Past research reveals AQ as a predictor of employee turnover. Individuals with higher AQs are more likely to stick it out and remain engaged, even under stressful circumstances. Lower-AQ people are more likely to become disengaged and/or quit. Extending studies of this kind longitudinally can confirm this trend in specific organizations like SunTrust. There was no correlation between AQ and age.

**Table 1: Average AQ vs. Job Type**

Job Type	Average AQ <sup>1</sup>
Cluster Managers	165.3
Managers	147.5
Assistant Managers	145.8
FSRs	143.8

**Table 2: Overall SunTrust Summary**

Means	SunTrust	U.S. National	International
AQ	145.1 (Moderate)	147.3	146.5
C	34.92 (Mid-range)	38.3	37.5
O	37.93 (Mid-range)	40.0	40.5
R	38.84 (Mid-range)	37.0	36.0
E	33.7 (Mid-range)	32.0	32.5

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<sup>1</sup> Version 6.0 of the AQ Profile had a mean of 147.5. The mean, range, median and mode on the current version, 8.1 is different. The two versions should not be directly or statistically compared.

**Table 3: Distribution of AQ Scores (Range = 106–183)**

Participants	Percent of Total	Score	Range
33	13	129 or below	Moderately Low
196	78	130–164	Moderate
22	9	165–184	Moderately High
0	0	185–200	High

The SunTrust participant scores were below the means on two CORE dimensions and overall AQ when compared to U.S. and International scores.

**Table 4: AQ Score Comparisons for Sales-Related Jobs**

Means	Total Sales-Related Averages	SunTrust Averages
AQ	153.50 (Moderate)	145.1
C	40.10 (Mid-range)	34.92
O	41.34 (Mid-range)	37.93
R	38.36 (Mid-range)	38.84
E	33.70 (Mid-range)	33.7