



Discovering what kids need to succeed

Technical Overview of the *Youth and Program Strengths Survey*

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Summary of Youth and Program Strengths Survey

Psychometric Properties

The Youth and Program Strengths Survey contains the full version of the Developmental Assets Profile (DAP) as its base. Two field tests were completed before the DAP was released. Subsequent studies have affirmed the field test results. The initial two field tests were:

1. A sample of 1,300 sixth through 12th grade student from a Minnesota school district completed the DAP along with Search Institute’s longer assets survey, *Profiles of Student Life: Attitudes and Behaviors* (A&B survey). A subsample of over 200 students also completed the DAP twice over a two-week interval to determine test-retest reliability.
2. A sample of 1,110 sixth- through eighth-grade students in Oregon completed the DAP and A&B survey. This sample broadened geographic representation, and increased racial and ethnic diversity. This field test also included two measures of self-esteem.

Internal Consistencies were relatively high, and averaged .81 for the eight asset category scales and .88 for the five context scales. Internal consistency was .93 for Internal assets, .95 for External assets, and .97 for Total assets. Internal consistency is lower for Constructive Use of Time (.59). Internal consistency might be less relevant for a scale reflecting involvement in a variety of enriching activities. Results did not vary significantly between groups.

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Test-Retest Reliability: Two-week test-retest reliability for 6th through 12th graders (n=225) were moderately high and averaged $r=.79$ for the eight asset categories. Test-retest reliability for the *Internal Assets Score* was $r=.86$ and for *External Assets Score* was $r=.84$. Test-retest reliability for the DAP *Total Asset Score* was $r=.87$. Despite lower internal consistency, *Constructive Use of Time* had moderately high test-retest reliability, especially among females ($r=.79$) and high school youth ($r=.75$).

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Concurrent Validity: The original *Attitudes and Behaviors* (A&B) survey, which measures each of the 40 assets, has been used with more than 3.5 million youth. It provides an opportunity to test concurrent validity of the DAP. It also measures risk behaviors, providing an opportunity to test the relationship of DAP scores with these measures. The pilot test of 1,300 youth yielded the following:

- **Total Asset Scores**—The correlation between the DAP *Total Asset Score* and the total number of assets derived from the A&B survey was $r=.82$, $p<.001$, indicating very strong linear relationship. As the number of assets increased from 0 to 40, mean scores on the DAP increase systematically.
- **Levels of Assets**—Among youth with 0-10 A&B assets, the mean *Total Asset Score* was in the *Challenged* range (0-29) defined for the DAP. Youth with 11-19 assets had DAP scores in the

Internal Consistency of DAP Scales (field test)

(Cronbach’s coefficient alpha)

TOTAL DAP SCORE	.97		
EXTERNAL ASSETS	.94	INTERNAL ASSETS	.92
Support	.80	Commitment to Learning	.83
Empowerment	.74	Positive Values	.85
Boundaries and Expectations	.84	Social Competencies	.79
Constructive Use of Time	.56	Positive Identity	.79
CONTEXTS			
Personal	.83	School	.87
Social	.87	Community	.85

Vulnerable range on average, those with 21-30 assets were in the *Adequate* range on average, and those with 31-40 assets were in the *Thriving* range on average, thus validating the DAP’s ranges.

- *High-risk behaviors*—Ten high-risk behavior patterns were assessed using the A&B survey. Higher scores on both the DAP and the A&B were negatively related to the risk behavior indices. Youth scoring in the *Low* range on the DAP *External Assets* scale, reported on average 3.2 and 2.8 risk behavior patterns for males and females, respectively. Youth scoring in the *Thriving* range on the DAP *External Assets* scale, reported on average only 0.5 risk behavior patterns for males and 0.3 for females.
- *School Success*—Internal Assets accounted for 18 percent of the variance in self-reported grades.
- *Thriving*—Both females and males in the *Challenged* range on the DAP reported few thriving indicators, such as school success, affirmation of diversity, and leadership (mean = 2.2 and 2.6 for males and females respectively, out of 8). Mean number of thriving indicators increased successively for *Vulnerable*, *Adequate*, and *Thriving* ranges, with youth in the *Thriving* range reporting about 6 of 8 thriving indicators.
- *Asset Category Scales*—Convergence between the DAP Asset Category scales and corresponding asset counts from the A&B was moderately high, averaging $r=.62$ for the entire sample. For example, the correlation between the DAP *Social Competencies* scale and number of social competence assets derived from the A&B survey was $r=.66$.

Correlations between Summary Scores on DAP and A&B and Risk Behaviors, Thriving Indicators, and Grades			
	High-Risk Behavior Patterns	Thriving Indicators	Self-Reported Grades
DAP			
Total Assets	-0.48	0.63	0.46
External Assets	-0.40	0.63	0.47
Internal Assets	-0.49	0.65	0.48
A&B Survey			
Total Assets	-0.46	0.60	0.41
External Assets	-0.48	0.68	0.49
Internal Assets	-0.51	0.68	0.49
All correlations are significant $p<.001$ Overall $n=1,312$ varies slightly for each analysis due to missing data.			

Additional Reliability Tests

Since the original field test, a number of DAP studies have been completed through Search Institute’s online survey. Eight community studies were analyzed to assess internal consistency reliability, as shown on the following page (category scores only; Cronbach’s coefficient alphas). These results reinforced the field test findings. Studies in other countries with language adaptations have yielded similar results.

	CA	OH	TX	SC	MD	WI	OR	CO
N =	488	219	612	355	359	567	688	454
Support	.81	.75	.81	.75	.79	.80	.79	.70
Empowerment	.69	.69	.69	.72	.73	.77	.74	.52
Boundaries and Expectations	.80	.77	.83	.79	.84	.84	.82	.73
Constructive Use of Time	.48	.51	.54	.57	.44	.56	.48	.51
Commitment to Learning	.76	.78	.82	.80	.87	.84	.80	.76
Positive Values	.78	.80	.83	.80	.84	.86	.83	.78
Social Competencies	.75	.79	.78	.72	.81	.82	.79	.71
Positive Identity	.76	.83	.79	.79	.82	.81	.81	.69

Background on Program Quality Measures

Search Institute's *Youth and Program Strengths Survey* is an expanded version of a brief measure we introduced in 2009.

The original measure was first used in our national "Teen Voice" study of 15 year olds in 2009 (Scales, Benson, and Roehlkepartain, 2010). The core items were developed on the basis of findings from Roth and Brooks-Gunn's (2003) evaluation of positive youth development programs, and their conclusions about elements that constituted a high-quality program.

The original scale has shown a high degree of internal consistency reliability, both with the initial national sample of approximately 1,200 youth who were 15 years old (Scales, Benson, and Roehlkepartain, 2010, $\alpha=.87$), and in a slightly re-worded version (for lower reading level), with a sample of nearly 500 4th-6th graders attending Salvation Army youth development centers in 2011 (Scales, Fraher, and Andress, 2011, $\alpha=.89$).

In addition, the validity of the measure was suggested by examining several concurrent youth development outcomes as a function of whether youth who attended a high-quality Salvation Army program. As we expected, these results showed that youth who reported attending high-quality OST programs also were significantly more likely to report positive emotions, hopeful purpose, avoiding violence, civic engagement, and school success. We did not follow these youth over time, so we cannot say that the experience of program quality contributed to those positive outcomes. Nevertheless, other research does point to that cause-effect relationship between program quality and desirable outcomes (Catalano et al., 2004; Every Hour Counts, 2014; National Research Council and Institute of Medicine, 2002; Vance, 2010; Wilson-Ahlstrom, Yohalem, DuBois, and Ji, 2011), and our results, shown on the next page, clearly show that the program quality measure and positive youth development outcomes are significantly associated.

Correlation of Program Quality with Positive Outcomes

Outcome	Correlation with Program Quality	Percent of Outcome Explained by Program Quality
Positive emotions	.39**	15%
Hopeful purpose	.22**	5%
Avoiding violence	.10*	1%
Civic engagement	.34**	11%
School success	.26**	6%

$n=474$ 4th-6th grade students

** $p \leq .001$

* $p \leq .05$

We also conducted logistic regressions, using experience of program quality to predict positive outcomes. Results showed that participating in a high-quality program significantly increases the odds of a young person having those positive developmental outcomes. For example, quality has the weakest association with avoiding violence, but even for that outcome, youth in quality OST programs, as assessed by our measure, have a 27 percent greater chance of avoiding violence, than do youth in lesser-quality programs. They have almost twice as much chance of being successful at school, and more than three times the odds of contributing to their communities, as do youth in lesser-quality programs.

Odds of Having Positive Outcomes, if Participate in Quality OST Programs

Outcome	Odds Ratio
Positive emotions	2.41**
Hopeful Purpose	1.59**
Avoiding violence	1.27*
Civic engagement	3.31**
School success	1.72**

The odds ratio is the $\text{Exp}(B)$ coefficient produced by logistic regression, using program quality to predict the odds of having the outcome, versus not having the outcome.

$n=474$ 4th-6th grade students

** $p \leq .001$

* $p \leq .05$

We expanded this reliable and valid brief measure in 2014, in order to gain more content and construct validity by measuring a broader range of elements of program quality. For this purpose, we used the National Research Council 2002 report on Community Programs for Youth (National Research Council and Institute of Medicine, 2002), and specifically, the Council's coverage of "Features of Positive Youth Development Settings" as the framework for generating additional items.

Although the National Research Council framework is not the most recent, it remains the single most comprehensive consensus statement about the features of youth development program quality, reflecting not only the consensus of scholars and practitioners at the time, but reflecting the major program quality themes of other researchers and practitioners in the years since its publication, especially the emphasis on the centrality of relationships.

For example, Vance (2010) reviewed 11 youth worker competency frameworks, which define essential skills for having a high-quality OST program, including staff-child/youth relationships, peer relationships, and "opportunities for autonomy and skill-building." Rhodes (2004) called caring relationships among youth and adults in OST settings the "critical ingredient" for success in promoting positive youth development outcomes. The Harvard Family Research Project (Bouffard and Little, 2004) lists "engaging in warm, positive relationships; promoting positive peer interactions; and encouraging youth to be actively involved in shaping their programs and experiences" as critical parts of quality OST programs (p. 2).

Similarly, the Every Hour Counts coalition of extended learning initiatives (2014) identifies chances for meaningful youth involvement and input, supportive adult-youth relationships, and a positive emotional climate as among the key indicators of quality in extended-learning programs. Although they are not quality frameworks per se, clues about OST program quality also can be gleaned from examining recommendations made for measures of instruments to assess program quality.

The Harvard Family Research Project (Wimer, Bouffard, and Little, 2005) listed 11 such instruments (only one of which used youth surveys or reporting to get young people's own perspectives on quality), with consistent across-measure themes of warm, positive, and respectful youth-staff interactions, opportunities for skill-building, positive routines, well-organized activities, opportunities for autonomy and involvement, and safety, all clear echoes of the National Research Council framework. Less common were themes related to parent or family involvement and integration with school or other community resources, the other NRC feature of quality.

The Weikart Center for Youth Program Quality developed the widely-used *Youth Program Quality Assessment (YPQA)*, basing the tool on a "pyramid of instructional quality." The foundation of this tool is physical, psychological, and emotional safety, and it includes active youth engagement, skill-building, belonging, effective session flow, and youth decision-making as core elements (Smith et al., 2012). All of those aspects of program quality are included in the Search Institute framework; however, the YPQA is an observational tool, not one that gathers youth perspectives. As the name of the YPQA pyramid suggests, the emphasis is on afterschool programs that focus on academic instruction and enrichment. Finally, the Forum for Youth Investment conducted a similar, more recent compilation of 10 youth program quality instruments (Yohalem, Wilstrom-Ahlstrom, Fischer, and Shinn, 2011), including the Weikart Center's YPQA, and noted that "the content of most instruments aligns well with the National Research Council's features of positive development settings framework (2002) which has helped contribute to the growing consensus around elements of quality that has emerged since then" (p. 12).

All of these observational tools reviewed assess the core NRC areas of relationships, the program environment, youth engagement, promoting of social norms, skill-building opportunities, and routines and structure, but they do so in varying levels of depth.

Notably, even though they often reflect NRC’s framework, none of these dozens of youth program quality instruments and competency frameworks for youth workers *explicitly and comprehensively* aligns their entire instrument to the eight specific NRC framework features. And almost all of these program quality instruments that have been subjected to rigorous review are observational, or involve staff reports. In contrast, Search Institute’s Youth and Program Strengths Survey is explicitly aligned with and reliably and validly measures every feature of the NRC framework that continues to define quality, and it is the rare instrument that gathers the *perspectives of youth themselves* on the quality of their OST programs.

The internal consistency scores from our pilot data are shown below, with additional information becoming available after 2015.

Internal Consistency Scores for the Youth and Program Strengths Survey

Program Quality Scale	Cronbach’s coefficient alpha
Physical and psychological safety	.75
Appropriate structure	.91
Supportive relationships	.88
Opportunities to belong	.83
Positive social norms	.74
Support for efficacy and mattering	.84
Opportunities for skill building	.87
Integration of family, school, and community efforts	.82

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