

Additional Technical Information about the Indexes in the *Teen Voice 2009* Study

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The core of the Teen Voice 2009 analyses was two indexes, the Teen Voice Index (TVI), and the Relationships and Opportunities Index (ROI).

The Teen Voice Index

The TVI was created out of these variables:

1. Personal power
2. Perceived ability to contribute to community problem solving
3. Previous/anticipated civic political activity
4. Top 3 issues for new president (if they **listed at least 1**)
5. Leadership

If they met the criteria for experiencing each of these, they received 1 point, for a maximum index score of 5. For some analyses, we created low, medium, and high TVI groups among those with 0-1, 2-3, and 4-5 index points. When “leadership” was used as an outcome variable, it was dropped from the index, and the groups, from low to high, were those with 0-1, 2-3, and 4 index points.

The Relationships and Opportunities Index (ROI)

The ROI was created out of these variables:

1. Spark identification
2. Supportive actions of others
3. Youth action to develop talents
4. Youth as resources
5. Contribution to the social good
6. Community values youth
7. Participate in after school + quality of after school programs
8. Weekly time in after-school activities
9. Connection of talents to 4 L's: Lead, Love, Learn, Live
10. Availability of neighborhood/community resources
11. Frequency use neighborhood/community resources
12. Perceived racial respect

Teens who met the criteria for experiencing each of these received 1 point, for a maximum index score of 12. However, if they had been actively discouraged from pursuing their sparks, 1 point was subtracted. For some analyses, we created low, medium, and high ROI groups among those with 0-3, 4-8, and 9-12 index points. When “perceived racial respect” was used as an outcome variable, it was dropped from the index, and the groups, from low to high, were those with 0-3, 4-8, and 9-11 index points.

Reliability and Validity of the Teen Voice and Relationships and Opportunities Indexes

Note that indexes are not the same as “scales,” and so standard parameters for estimating scale reliability and validity are not appropriate as applied to indexes. Each of the components in each index is clearly related to the umbrella label given the index, suggesting *prima facie* evidence for *content validity* (e.g., leadership is certainly a reflection of a young person having “voice” or the expression of their opinions and influence, and being in quality after-school programs is certainly a reflection of having “relationships” and “opportunities” for learning and growth). Moreover, most of the items were taken or modified from previous surveys with known, acceptable psychometric properties, providing evidence of *construct validity*. However, each of the components is not necessarily highly related to all of the other components of the index, particularly in the relationships and opportunities index. For example, just because one has a spark and some support to develop that spark does not mean that one volunteers regularly, or that one does not feel discriminated against racially. Treating these items as a scale implicitly assumes more relation than there may be, and because some components of the index may be quite unrelated, the *alpha or internal consistency reliability* of the group of items when treated inaccurately as a scale would be low. Thus, the components were treated as elements of an index rather than as scales. In this way, various combinations of components could be experienced that would allow young people to have an equal score on the TVI or ROI without necessarily experiencing the same components.

Purely for illustrative purposes, the α reliabilities of the Indexes were computed, with the TVI (11 items) being .76, and the ROI being .87. The ROI, however, comprised the single greatest block of items in the @15 survey, 73 items, because it included several multi-part items. Thus, its apparent reliability is an artifact of the very large number of items used. Again, it is most appropriate to treat these measures as indexes, for the reasons described.

Finally, post-hoc evidence for the *predictive validity* of these two indexes is found in the results noted in the *Teen Voice 2009* report. As theory would predict, young people with higher levels of the TVI and ROI consistently scored better on a dozen indicators of developmental wellbeing. As shown in the following table, those 12 outcomes included five single-item measures and seven multi-item measures. All of the multi-measures had acceptable to good α reliabilities, ranging from .73-.89.

Sources for Items for TVI, ROI, and Developmental Outcomes in *Teen Voice 2009*

Construct	Type of Response Scale	Source of Items
Personal power	2 items, 4 point (strongly agree-strongly disagree)	<i>Search Institute Profiles of Student Life: Attitudes and Behavior Survey (A&B)</i>
Perceived ability to contribute to community problem solving	1 item, 5 point (no difference at all-great deal of difference)	National Youth Survey (Keeter and civicyouth.org)
Previous/anticipated civic political activity	7 items, 3 point (probably won't do this-have already done this)	Monitoring the Future, University of Michigan
Leadership	1 item, 5-point (never-5 or more times)	Search Institute A&B Survey

Construct	Type of Response Scale	Source of Items
Identification of spark	1 item, 3-point scale (yes, no, not sure)	Search Institute Thriving Orientation Survey
Specific supportive actions of others	3 items x 7 potential resources (parents, neighbors, school, etc.), 4 point scale (never-often)	Modified from Search Institute Thriving Orientation Survey
Connection of sparks to the “4 L’s” (life skills, love/relationships, learning, and leading/contributing)	4 items, 4 point (not at all-a great deal)	New
Active discouragement of sparks	1 item x 7 potential resources (parents, neighbors, school, etc.), 3 point scale (yes, not, not sure)	New
Youth action to develop sparks	7 items, 6 on 4-point scale (does not describe me at all-describes me a lot), 1 on 4 point (strongly agree-strongly disagree)	Search Institute Thriving Orientation Survey
Perceived racial respect: a. perceived racial fairness b. perceived racial/ethnic discrimination	a. 1 item, 4 point (SA-SD) b. 6 items, 4 point (never-very often)	a. Morehouse College survey b. 5 items from Kaiser African-American Men Survey, 1 New
Community values youth	4 items, 4 point (SA-SD)	Search Institute A&B Survey
Youth as resources	3 items, 4 point (SA-SD)	Search Institute A&B Survey
After-school program participation	1 item (Yes-No)	New
Quality of after-school programs	7 items, 1 4-point (SA-SD), 6 (never-very often)	Modified from National Promises Study developed by Search Institute and Child Trends for America’s Promise Alliance
Weekly time in after-school activities	1 item, 0 hours-more than 5 hours/week	National Promises Study
Availability of neighborhood/community resources	9 items, 3 point scale (is at least one of these, are not any of these, don’t know)	New
Use of neighborhood/community resources	9 items, 3 point scale (have used in last 3 months, have used but not in last 3 months, have not used)	New

Construct	Type of Response Scale	Source of Items
Volunteering/contribution to the social good	1 item, 4 point (0 hours-more than 5 hours/week)	National Promises Study; Search Institute Thriving Orientation Survey
OUTCOMES		
Personal mastery goal orientation (α .80)	3 items, 4 point (does not describe me at all-describes me a lot)	Modified from Anderman, Urdan, & Roeser
Hopeful purpose (α .81)	2 items a 4 point (does not describe me at all-describes me a lot); 1 item a 5 point (not at all certain-extremely certain); and 3 items a 4 point (SA-SD)	Modified from Search Institute Thriving Orientation Survey
School engagement	1 item, 4 point (never-very often)	National Promises Study
Multi-group ethnic identity (α .77)	3 items, 4 point (SA-SD)	Modified from Phinney MultiGroup Ethnic identity measure
Importance of prosocial values (α .76)	6 items, 4 point (not important-extremely important)	Monitoring the Future
Importance of adolescent civic commitments (α .73)	3 items, 4 point (not important-extremely important)	Modified from Flanagan measure
Worries and concerns (α .89)	10 items, 4 point (not at all worried-very worried)	3 New, 7 from Kaiser African-American Men Study
School Grade Point Average	5 items (number of classes with As, Bs, Cs, Ds, below Ds), GPA calculated on 4-point scale (A=4)	Eccles, Michigan Study of Adolescent Life Transitions
School attendance	1 item, open-ended and coded (days of school missed or skipped classes in last 30 days)	Modified from Search Institute A&B Survey
Leadership	1 item, 5 point (never-5 or more times)	Search Institute A&B Survey
Anti-social behavior/vandalism	1 item, 5 point (never-5 or more times)	Search Institute A&B Survey
Perceived racial respect: (α .83) a. perceived racial fairness b. perceived racial/ethnic discrimination	a. 1 item, 4 point SA-SD b. 6 items, 4 point never-very often	a. Morehouse College survey b. 5 items from Kaiser African-American Men Survey, 1 New