Character Strengths in the “Stream of Life”: The Process of Developing Measures for Children and Adolescents

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Background

Goette noted that “character develops itself in the stream of life.” To date, much of the academic work on character has been adverbial, despite the possibility that character strengths may be an underlying mechanism that guides adolescent behavior (McCallough, 2000; Peterson & Seligman, 2004). We define character as strengths which can be developed, depending on context, experience, and heritability (Anis, 2011; Heckman et al., 2013). Further, we assert that character strengths are active and agentic, and subject to continuous updating and reconstruction by children and adolescents (Nucci, 1997).

As part of the Roots of Engaged Citizenship Project—a study aimed at understanding how young people grow into civic-minded adults who positively contribute to their community, help others, and participate in solving social issues—we sought to develop developmentally responsive measures of character strengths. This poster highlights the measure development process of four strengths: future-mindedness, gratitude, leadership, and purpose. These strengths were selected due to their theoretical importance as developmental precursors to civic engagement. At the same time, no existing measures were identified that assessed these character strengths in children and adolescents.

Study Overview

A three-phase mixed methods process was used to develop psychometrically-sound, and developmentally-appropriate measures of character strengths for youth in Grades 4-12 living in three geographically diverse areas of the United States.

Figure 1. Three phases of character strength measure development.

Phase 1: Qualitative Interviews

In Phase 1, semi-structured interviews (n = 90, M_age = 13, SD = 2.7, Range = 9-19, 51% female) children and adolescents were asked to offer their own definitions of four character strengths: gratitude, purpose, future-mindedness, and leadership. Transcriptions of these data were coded to identify emergent patterns by age, and were used to develop quantitative character strength measures. Most youth accurately defined the character strengths gratitude and leadership in their own words; however, purpose and future-mindedness proved more difficult across ages. In addition, older youth used more complex definitions and detailed examples relative to younger youth. For both purpose and future-mindedness older students tended to give definitions linked to specific post-high school goals and plans, while elementary and middle school youth tended to provide more simplistic definitions.

Phase 2: Cognitive Interviews

Individual items were assessed via cognitive interviews with n =19 youth in elementary, middle, and high school. The goal was to identify whether survey items achieved our intended measurement purpose and, if not, where and how they fail. A variety of cognitive probes were used to assess youth’s ability to comprehend and accurately respond to the items intended to assess the four character strengths. Key findings from the cognitive interviews included:

- There was a range of comprehension problems, particularly for the youngest participants, often linked to complex statements in survey items or response options.
- Across ages, youth were confused by the reverse-coded items.
- Young people do not know what “e.g.” means.

The feedback received through the cognitive interviews led to multiple revisions before the pilot survey administration.

Phase 3: Pilot Study

The pilot survey included 3 to 4 item quantitative items assessing each of the four character strengths with n =213 youth (M_age = 13, SD = 2.7, Range = 9-19, 51% female). Confirmatory factor analyses, using structural equation models, were then conducted to test psychometric properties and assess individual item loadings across age groups (Age 8-13, n = 108; Age 14-18, n = 104).

Table 1 shows an overview of measure psychometric properties from the full study. Nearly all of the scales had adequate internal consistency (α > .70). The exceptions were gratitude and future-mindedness in the CFA, item loadings were >.69 for middle and early adolescents, respectively). In the CFA, item loadings were adequate although some were stronger than others (.62 to .80 for the overall sample), suggesting areas for further refinement prior to the full survey administration. Correlations between the four character strength factors were significant ranging from moderate to strong (average r = .69; Range: .56-.76). As a result, further item-level refinements were made to maximize the distinction between these concepts.

Discussion and Implications

Several strategies and benefits of using a multi-pronged measure development process were evident from our study. Young people from elementary to high school varied in their interpretations of the character strengths, and exploring the relationship between character and civic engagement.

Full Study

The data from the pilot study led to confidence in the scale structure in order to proceed to the full study. As of Spring 2014, data had been collected from 1,616 children and adolescents in diverse geographical locations across the United States using the final character measures for future-mindedness, gratitude, leadership, and purpose.

Table 2 provides an overview of measure psychometric properties from the full study. Nearly all of the scales had adequate internal consistency (α > .70). The exceptions were gratitude and future-mindedness when disaggregated (α = .69 for middle and early adolescents, respectively). In the CFA, item loadings were adequate, like the pilot study (.61 to .82). However, by age groups, item loadings were much improved from the pilot study.

Table 2. Full study descriptive statistics, alpha reliabilities, and item loadings.

Character Strength Measures | Mean (SD) | Overall Sample | Early Adolescents | Middle Adolescents |
--- | --- | --- | --- | --- |
Gratitude | | | | |
I feel thankful for everyday things | (.94) | .79 | .77 | .80 |
I feel thankful for something important | (.94) | .83 | .81 | .84 |
I think about the people who helped me | (.94) | .68 | .69 | .74 |
I feel sorry that others don’t think | (.94) | .77 | .78 | .87 |
Purpose | | | | |
I have a sense of purpose in life | (.94) | .80 | .78 | .80 |
I want to do something that makes others lives better | (.94) | .71 | .73 | .72 |
I plan to do something that makes others lives better | (.94) | .62 | .54 | .57 |
I have a sense of what life is all about | (.94) | .58 | .53 | .59 |
Future-mindedness | | | | |
I am hopeful about the future | (.93) | .79 | .84 | .74 |
I plan to do something that makes | (.93) | .84 | .77 | .80 |
I plan to do something that makes others lives better | (.93) | .77 | .70 | .70 |
I plan to do something that makes others lives better | (.93) | .75 | .80 | .71 |
Leadership | | | | |
I am good at leading others to reach a goal | (.93) | .82 | .82 | .83 |
I am usually the one who suggests activities to my friends | (.93) | .56 | .40 | .30 |
I am usually the one who suggests activities to my friends | (.93) | .62 | .61 | .63 |

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