

Understanding and Measuring Leadership from a Student Perspective: Creation and Validation of the Student Leadership Scale (SLS)

Background and Purpose

- Leadership can be defined as the process through which individuals work together to achieve direction, alignment, and commitment toward a collective goal (van Velsor et al., 2010).
- Leadership is invaluable in school and the workforce because it can lead to improved outcomes (Northouse, 2010; Shertzer et al., 2005; Zula et al., 2010).
- Over the past 20 years, colleges and universities have focused on developing student leadership skills (Shertzer & Schuh, 2004).
- Furthermore, one survey found that 90% of business, government, non-profit, and education leaders believed leadership development should begin prior to college (van Velsor & Wright, 2012).
- Unfortunately, there is little research on leadership development, and it is difficult to find measures developed specifically for K-12 students.
- The current study focuses on the development of a leadership scale for younger populations.

Results: Study 1

- Coders drew on expertise in education and leadership development in identifying emergent themes.
- Every response was double-coded and coders met weekly to achieve consensus on disagreements.
- Further disagreements were brought to the full research team for adjudication.
- Theme coding yielded 29 separate competencies from student responses (See Table 1 for a sample of these competencies).
- Multiple items were developed to measure each of the individual competencies.
- The item statements were discarded, modified, or included based on feedback from teachers and students.
- Themes were further grouped to 4 theoretical constructs (See Figure 1):
 1. Leading Self
 2. Leading Academically
 3. Leading with Others
 4. Changing Your World

Method: Study 2

- Study 2 was focused on testing the psychometric structure of the Student Leadership Scale (SLS) developed in Study 1.
- 923 youths from three schools, grades 6-12 were asked to respond to the leadership questionnaire.
- Data were anonymous.
- Principal axis factor analysis with varimax rotation was used to examine the factor structure of the SLS.
- Factor loadings, Rasch analyses, and Cronbach's alpha identified most representative of the underlying theoretical construct.

Participants

Table 2. Participant Breakdown – Study 2

	Type of school	Number of students	Grade levels
School 1	Public - Magnet	57	9 th – 12 th
School 2	Public	212	7 th – 12 th
School 3	Private	654	6 th – 12 th

Measures

- The questionnaire included 29 items addressing the competencies identified in study 1.
- Since younger children tend to rate themselves quite highly due to social desirability bias (Spector, 2004), each item on the SLS was written about students' classmates (e.g. "Please rate how much each statement describes your classmates to the best of your knowledge").
- Each statement includes a 5-point Likert response scale, in which a higher value represents a larger number of classmates.

Results: Study 2

- Four factors emerged from the EFA, accounting for 52.3% of the variance.
- Factor reliabilities ranged from .74 to .86.
- The four factors generally matched the intended item grouping with some cross-loading.
- The finalized scale contained 16 items, leading to a shortened 16-item SLS.
- Means, standard deviations, and correlations for each SLS factor are presented in Table 3.

Table 3. Factor Descriptives

	Leading Self (LS)	Leading Academically (LA)	Leading with Others (LO)	Changing Your World (CYW)
Mean	3.00	3.40	3.00	3.00
SD	-0.81	-0.86	-0.9	-0.83
alpha	0.74	0.79	0.86	0.85
LS	-----	0.41	0.48	0.42
LA		-----	0.49	0.41
LO			-----	0.5
CYW				-----

SLS Development Process

Open Ended Questionnaire

Thematic Coding

Scale Writing

Scale Pilot

Factor Analysis

Method: Study 1

Procedure and Participants

- Study 1 was the first part of a sequential mixed-methods study (Johnson et al., 2007).
- 1,067 youths from a private school, grades 3-12 were asked to respond to two open-ended questions.
- Six researchers analyzed the responses to identify themes among student responses.
- Coded themes were then used to develop items for a self-report questionnaire.

Measures

The surveys contained two open-ended items of interest to this study:

- (1) "What is leadership?"
- (2) "What does leadership look like in your grade level?"

Table 1. Thematic Coding

Construct	Competency	Description based on qualitative data
Leading Self	Self-aware	Always being yourself; believe in yourself; trust in yourself; sense of self
Leading Self	Grit	Perseverance; gives 100%; consistently does their best; tries their best; doesn't give up
Leading Self	Courageous/ Personal moral principles	Courageous; moral courage; stand up for self; resist peer pressure; stand up for what you believe in
Leading Self	Accountable	Accountable; takes responsibility for actions; "owns" what they do; shows responsibility; acts responsibly
Leading Self	Integrity	Practice what you preach; follow your own morals/values; adhere to personal morals; do what you say you're going to do
Leading Academically	Perseverance	Talking responsibility for learning; works hard ; learns from mistakes
Leading Academically	Supports a learning environment	Tells others to do things specifically in regards to learning (homework, classwork, cheating, being quiet in class); sets an example for others
Leading Academically	Encourages others	Supporting/helping/encouraging others in the classroom or on the sports field or in other extracurriculars
Leading Academically	Self management - organizational skills	Coming up with good plans for solving problems; coming up with a strategy; finding a positive solution for a problem
Leading with Others	Shared Leadership	Working together towards a common goal; not one person leading; shared responsibility; lets others have input
Leading with Others	Collaborative	Collaborative; includes others in the group; works with others; teamwork; listens to everyone's opinions in the group; makes sure everyone has a say; compromises; takes others opinions and ideas into consideration; cooperative
Leading with Others	Kind	Kind; nice; caring; loving; treats others the way you want to be treated; takes care of others; inclusive
Leading with Others	Appreciates diversity	Appreciates diversity/other cultures
Leading with Others	Respectful	Respectful; respects the views of others
Changing Your World	Taking charge	stepping up; takes initiative; takes matters into their own hands; takes responsibility for leading/getting the group together/bringing people together; represents the group
Changing Your World	Motivating	Sets example; is a role model for others; someone others might look up to; shows others how one should act/do something.
Changing Your World	Communicative	Combines people's ideas in a way that promotes understanding
Changing Your World	Influential	Has good influence on others; gets others to do things; shapes how people think/what they do; Speaks his/her mind; readily gives opinion; willing to talk in front of groups; facilitates discussion
Changing Your World	Ethical	Good intentions/morals; leads based on personal choice; someone who does the right thing (also when nobody is watching)
Changing Your World	Ethical responsibility	System of moral principles (e.g. strives to do right thing or stand up for right thing even if rules aren't clear)
Changing Your World	Inspiring	Inspires or motivates others; brings the best out of people
Changing Your World	Acts strategically	Has a vision; sees big picture; dreams of future possibilities; expansive thinker--can integrate others' ideas together

Leading Self

- Individuals' self-knowledge, self-awareness, accountability, resiliency, and integrity.

Example Item:

- "My classmates stand up for what they believe in, even if it's not popular."

Leading Academically

A recognition that school is valuable.

Example Item:

- "My classmates think it is important to do well in school. "

Leading with Others

The extent to which individuals respect and listen to each other.

Example Item:

- "My classmates respect the views of others, even if they are different from theirs.

Changing your World

How individuals step up to articulate a vision, inspire and unite others, and collaborate with other to change their worlds.

Example Item:

- "My classmates help everyone understand other student's ideas when they are working in a group."

Conclusions and Next Steps

- Over 90% of business, government, nonprofit, and education leaders surveyed by the Center for Creative Leadership believe that leadership development for youth should begin before age 18 (van Velsor & Wright, 2012).
- This points to a significant need in the field for understanding youth perceptions of leadership and the development of an instrument to measure indicators of leadership for youth in K-12 schools.
- The short 17-item Student Leadership Scale (SLS) is a brief content-valid measure for assessing indicators of student leadership for students in grades 6-12.
- Our development process in study 1 ensures the four SLS factors are constructs faced and understood by today's youth.
- Our quantitative analyses in study 2 indicate that the 16-item SLS demonstrates reliability and captures four overarching themes identified in Study 1 (See Figure 1).
- This is the first leadership scale that we are aware of that was developed based on students' perceptions of leadership (rather than adults' perceptions that have been modified for students).
- The positive results of the initial work indicates several next steps:
 - Collecting SLS data from elementary school-aged students to confirm the scales factor structure for students in Grades 3-5
 - Collecting additional measures for convergent, discriminant, and predictive validity purposes
 - Identifying the sensitivity of the scale for leadership development intervention.
 - Understanding how the different elements of leadership compare across diverse youth.
- We hope that this assessment will be a first step for a more comprehensive leadership development focus in K-12 contexts.

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Figure 1: Theoretical Leadership Constructs