Leadership Skills: Developing a Measure for College Students

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ABSTRACT- Strong leaders are in high demand in many of today’s disciplines. Many characteristics and skills contribute to the emergence and success of leaders. It is important to assess these skills and characteristics in order to better fulfill the leadership demands of employers and other organizations. The current measure aims to assess leadership abilities in college students in order to identify good leaders and the characteristics that they possess. A Likert Scale measurement was created and administered to 50 university students. Statistical analysis showed the scale to be psychometrically sound. Items correlated highly with one another and the cronbach’s alpha was 0.78, showing it to be internally consistent. Factor analysis revealed that items loaded on three components: leadership confidence in group settings, leadership in interpersonal interactions, and leadership determination. Participants averaged 2.632 on each item, on a scale of 0-4, with no gender differences. Standardizing this scale to different populations will make it more generalizable. The leadership scale could also be used in different contexts to assess skills of individuals, specifically in job and school settings.

Leadership skills are required in most situations. It is important for job settings, organizations, institutions (Blair, 2002) and other groups (Out-hwaite, 2003) to have strong leaders to guide and direct people. The success of these groups relies strongly upon the leader’s vision and skills in handling and leading others. Assessing leadership aids many of these organizations in selecting leaders that possess these abilities. Thus, knowing what skills, characteristics, and abilities contribute to strong leaders is vital in selecting individuals that will have more likelihood of succeeding as a leader. Research has long focused on what makes a strong leader and how one might identify powerful leaders early on.

Researchers and theorists have developed numerous theories and measurement systems in order to identify what characteristics create an effective leader (Yuki, 1989). Some claim that there is no single approach to evaluate what makes such a leader (Carew, 1986). Context and purpose will have a strong influence on what skills and abilities are needed to succeed in various environments. Despite these claims there continues to be a heightened interest in measuring leadership skills among certain populations. Some common scales used to measure leadership skills, and determine how well individuals will perform in a leadership position are the Ohio State Leadership Scales (Schriesheim & Kerr, 1974) and the Alberta Heart Health Project scales (Barrett et al, 2005).

The Ohio State Leadership Scales are broken down into three separate subscales. All three have shown to be fairly psychometrically sound, although distinct from one another (Schriesheim & Kerr, 1974). It is observed that assessing at least three different areas of leadership allows for a more comprehensive view of leadership. Other scales are available that are more specific to occupational leadership. For example, the newly developed set of scales as part of the Alberta Heart Health Project assesses leadership skills to decide on health field promotions (Barrett et al, 2005). These scales are very useful in assessing the qualities that make good leaders for certain positions.

Many studies have also been conducted to observe which characteristics those in leadership positions hold and those leaders’ current views of leadership (Mulec, 2006). Recent research has shown that there exists a strong relationship between certain individual traits and leadership emergence. Those that possess traits such as intelligence, dominance, gender, self-efficacy, self-monitoring, emotional intelligence, conscientiousness, emotional stability and extraversion, are more likely to be successful leaders (Vardiman et al, 2006, 95).
Because of this high correlation between specific traits and leadership emergence, we designed a measure specifically to assess leadership traits in college students in specific situations such as public speaking, motivation, and organization. Past studies have been conducted to assess leadership in college students concerning other characteristics such as cognition, along with skills and behaviors (Houghton & Neck, 2002). By identifying these qualities in college students, organizations will be able to better select individuals fit for their specific leadership needs. This is beneficial for many employers because it allows them to screen for individuals that are more likely to succeed as a leader before hiring them. This will also allow organizations to spend less time and money on training leaders and the rate of unsuccessful leaders will also decrease.

The current scale consists of questions that use common characteristics of leaders to evaluate the level of leadership among the participants. The characteristics used in the measure consist of public speaking ability, initiative in group settings and organizational skills. We hypothesize for the scale to successfully measure these qualities in Brigham Young University (BYU) students. We also anticipate that gender and education level will influence the results.

Methods

Participants

A total of fifty participants were used, twenty-eight female and twenty-two male. All participants fell between the ages of nineteen and twenty-seven years old. The majority of those completing the surveys were sophomores (N=13) and juniors (N=24) from BYU (freshman participants N=5, senior participants N=8).

Design

This survey was a measure developed to assess leadership skills amongst college students. The collection of data for this leadership survey used a convenience sample. Twenty-five of the surveys were administered prior to the starting of undergraduate psychology classes, while the other twenty-five were given door-to-door at an apartment complex.

Procedure

A pool of thirty questions was created based on common characteristics of leaders in the home, school, and job settings. A panel of judges rated each item using a content validity ratio. The content validity ratio (CVR) refers to the judges rating each item on a scale of essentialness. A minimum requirement of judges indicating the item as “essential” is used to ensure that the agreement is not due to chance (Pennington, 2003). Thus, after items were rated ten items were selected. The questions evaluated common leadership behaviors such as public speaking ability, initiative in group settings, and organizational skills. The questions were presented in a Likert Scale format that allowed the participants to be able to rate themselves on a scale of 0-4, 0 showing disagreement with the statement, ranging to 4, showing complete agreement. Half of the participants completed the survey in a classroom setting and half completed it in their homes. The participants were instructed to answer the questions as honestly as possible and were allowed an unlimited amount of time to finish the survey. Administrators were present during the completion of the surveys.

Results

After administering the survey and running statistical analysis, the following results were found. The overall mean score for participants (N=50) on each leadership scale item was 2.632, meaning that on average students rated themselves as demonstrating the leadership skills slightly more than half of the time. Male participants averaged 2.618, and female participants scored an average of 2.643, which were not statistically different. Also, year in school did not show a significant difference. Items correlated well with one another (see Appendix A, Table 2). A factor analysis showed that items from the questionnaire loaded on three distinct components: leadership confidence in group settings, leadership in interpersonal interactions, and leadership determination (see Appendix A, Table 1). Cronbach’s alpha was 0.78, which shows that it was fairly internally consistent.

Table 2 Component Correlation Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
<td>1</td>
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<td>0.336</td>
<td>0.215</td>
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<tr>
<td>2</td>
<td>0.336</td>
<td>1.000</td>
<td>0.230</td>
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<td>3</td>
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Leadership Skills

The current leadership measure showed to be a good self-assessment of the specified leadership skills. Looking at the inter-item correlations, each question correlated with many of the other items. Therefore there existed no need to eliminate any questions. This high correlation between items shows internal consistency as they all measure the same construct. For example, question 5 refers to speaking in front of large groups and correlates with question 7, which deals with volunteering to be a spokesperson. This shows that they are both measuring the same component of leadership – public speaking ability. This occurred for all of the items that appeared on the survey and revealed three areas of interest.

Factor analysis showed that items loaded on three components: leadership confidence in group settings, leadership in interpersonal interactions, and leadership determination. Division into these three components was due to similarities in the questions. The items that loaded on confidence in group settings referred to aspects such as public speaking. Leadership in interpersonal interactions involved qualities of leaders in work and school settings. Items referring to vision and having a firmness of purpose measured the last component, leadership determination. Those participants that scored highly on one item tended to also rate themselves highly on those items that loaded on the same component.

When the effect of gender was evaluated our findings were surprising. Where there is normally a disparity between men and women (Walker, Llardi, & MdMahon, 1996) data analysis showed that gender did not play a role in how the participants rated themselves as having leadership skills. The sample used in the current measure may have influenced this finding. Previous studies that have looked at gender difference have commonly recruited a wider variety of participants, including those attending universities and those who were not. The current sample was taken strictly from university students. In other words, university students might rate themselves higher in leadership abilities than individuals who are not university students (Linimon, Barron & Falbo, 1984). Thus, the gender difference that has appeared in prior research disappears when both the male sample and female sample are university students.

Year in school also did not show a significant difference. There is little variation of scores between the sophomore and junior-level students. This may occur because by college age most students will have developed the specific leadership skills that are used in the current measure. Most students develop high organizational skills in their freshman year in college. Thus, by the sophomore and junior years there does not exist a large difference. We might assume then that there would be a larger difference between freshman and seniors. Further studies will benefit by looking at this comparison, but in the current measure there was an insufficient amount of freshman-level participants (N= 5) to adequately compare to sophomore level participants.

While results support the current measure, some limitations do exist in areas such as the sample, personal differences, and the generalizability. Though the sample size was adequate, all participants were BYU students and thus the results are not inferable to the general population of college students. The majority of the sample population was between the ages of 19 and 27. The small range of age hinders the results’ ability to represent any college student falling outside of this range. There is a large number of non-traditional university students (i.e. students who are returning to the university level education after many years of work experience, or over the age of 25) that would not fall into the age range of the current measure (Luzzo, 1993).

Additionally, participant’s individual differences such as...
as self-perception, arrogance, background and attitude towards social pressures, and values (Ciulla, 1999) were not accounted for. Because self-report was utilized, perception of one’s own leadership skills may have been influenced by personality characteristics. Thus, this measure is based on subjective view rather than objective leadership ability (Hessing, Elffers & Weigel, 1988). The use of self-report, and consequently the personal differences between participants, may have caused biases during the measure and thus may not be a good measure of leadership skills. Future scales might also address to what extent the measure predicts leadership success.

In conclusion, it is assumed that the current measure successfully assesses leadership characteristics such as confidence, interpersonal interactions and determination in BYU college students. Individuals who scored high overall on the assessment showed to possess characteristics such as public speaking, initiative in group settings and organizational skills. The implications of this measure are most valuable to organizations aimed at selecting successful leaders at an early point in time.

Future leadership scales should focus on the ability to be generalized to represent a wider population. Subsequent scales could also be administered to a larger number of college students in order to have a more representative sample to measure leadership skills. Leadership scales should also be used in different contexts to assess skills of individuals, specifically in job and school settings.

References


Ciulla, J.B., (1999). The importance of leadership in shaping business values. Long Range Planning:

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