The Complexity in Defining Leadership: How Gifted Students' Backgrounds Influence Their Understanding of Effective Leadership

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ABSTRACT

There is no universally accepted definition of what it means to be an effective leader. Individuals understand leadership differently based on their own identities and lived experiences. The purpose of this investigation is to determine how one's ethnicity, class, and gender identities influence their understanding of effective leadership, focusing specifically on gifted and talented eleventh and twelfth grade high school students at residential academies in the United States. The results show that there is a significant relationship between one's race/ethnic and class background and their understanding of what it means to be an effective leader. From this, we argue that gifted and talented students are able to develop a greater understanding of how to be an effective leader in their communities, high schools, and workforce by participating in leadership education programs that take advantage of the multiple perspectives on leadership present in their own school.

Key Terms: Leadership, students, minority, African-American, Hispanic

INTRODUCTION

Leadership is a complex topic, which, to date, still has no concrete definition. For this reason, different people will perceive leadership in very unique ways. The perception of what traits and behaviors define a leader seems to derive from one's cultural upbringing. Scholarly research suggests that there is a strong connection between culture and leadership (Parry, 2001). More specifically, one can argue that leadership and culture are directly related, and each has a profound impact on the other. More specifically, an effective leader has a great impact on his or her surroundings, just as his or her surrounding cultures influence their effectiveness as a leader. (Parry, 2001).

One of the difficulties with this research is that "there is no reasonable agreement on what traits or behaviors are leadership traits of behaviors." (Barker, 1997). Barker introduced the expansive definition of leadership that differs among groups of people. He studied various viewpoints of leadership such as "The Social Construct of Leadership, Leadership as an Ability, Management as an Ability, Leadership as a Relationship" and "The Process of Leadership." (Barker, 1997). Through this investigation Barker concludes the "need to conceptualize leadership in a different way, and come to a more common understanding of what it is."

Keith Grint (2005) also struggles in defining leadership in concrete terms, studying leadership as a position, results, process and person. Studying the factual evidence that conclude positively for each area of leadership, there are also negative results. Grint claims that: "Leadership remains an essentially contested concept."

In 2003, over 26,000 articles could be found related to leadership in the Expanded Academic Database, (Winston and Patterson, 2005). The fault of many of these studies is due largely to the

lack of examining leadership as a whole, but instead studying only parts of leadership. Compiling 160 articles and books containing definitions of leadership, Winston and his team members integrated the definitions.

The perceptions of the qualities of leadership vary depending on the observer. According to Dr. Mumford (2000) at the University of Oklahoma, creative problem solving, social judgment skills and knowledge are the necessary traits to becoming a successful leader. Creating a model to demonstrate the flow of leadership characteristics on leader performance, it includes traits such as career experiences, motivation, personality, and environmental influences. Although knowledge is an important factor, a leader must "indicate that these skills represent unique capacities reflecting something above and beyond general intelligence."

This differs from the result of the study performed by Dr. Karen Orvis (2010), which identified "four primary instructional design attributes that serve as key determinants of a self-development activity." The four attributes are content relevancy, learner engagement, challenge and structure. Content relevancy "is the degree to which the instructional content… directly addresses specific knowledge or skills in need of development" (Orvis, 2010). This concept overlaps with Mumford's view of social judgment skills, whereas traits such as learner, engagement, challenge and structure introduces a new plane of leadership qualities. Learner engagement refers to the reflection of stimulating individuals to be "mindfully engaged in the process of building, practicing, evaluating, and applying the capability to be mastered." (Orvis, 2010) This also shows relates with Mumford's view of motivation. However, challenge and structure are not discussed by Mumford whereas Orvis does not include personality or environmental influences in her definition of leadership.

Although there are similarities between studies on defining leadership, "beyond communication and interpersonal skills, however, youth leadership remains a fuzzy concept in the literature." (Conner, 2007) Amy Bisland would argue that students need to be educated in the leadership characteristics "such as kindness, intelligence, problem solving, communication, cooperation, honesty, fairness, and confidence." (Bisland, 2004)

Contemporary researches have leaned toward emphasizing the actions of leaders instead of studying their traits. "Warren Bennis and Burt Nanus have enlarged the definition of leadership to include more than just doing things right;" they claim that the difference between managers and leaders are that leaders "do the right thing." Their list of characteristics include, establishing and maintaining visons, maintaining visible presence, and maintaining positive interpersonal relationships. (McEwan, 2000) Both Bisland and Bennis introduce new concepts to the already unclear vision of leadership. Honesty, fairness, "the right thing" all

portray the need for a leader to be ethical. This is not mentioned in either Mumford or Orvis, which indicate the Venn diagram-like structure the views of leadership can be corresponded to. All the researchers listed above thoroughly discuss the importance of communication skills and intelligence. Beyond that, their ideas sprout in different directions.

For this reason, we seek to find the differences in leadership perception and style between various ethnic groups. Our research reveals that leadership education programs should acknowledge and take advantage of the distinct ways in which students perceive effective leadership based on their ethnic backgrounds. Utilizing this diversity of thought will help all students develop a more comprehensive understanding of leadership.

MATERIALS AND METHODS

A total of 232 eleventh and twelfth grade students from five residential math and science focused schools in the United States participated voluntarily to complete a survey. The survey consisted of eight questions *(see Appendix)*.

The first question asked the students to list three traits they believed were important in becoming a successful leader. The second question asked to rank those three traits listed in question one from most important to least important. These traits demonstrated the leadership skills that the students could recognize. Text analysis was used to analyze this data. This provided the information of grouping similar traits together such as "articulate" and "good communicator."

In the third question, the students were asked to select five traits given a list of eighteen traits that were most commonly listed as traits of leadership in scholarly articles (including charismatic, articulate, confident, adaptable, stable, goal-oriented, and conscientious), and some traits commonly associated with leadership, but not listed in the scholarly articles (including humorous, witty, bilingual, honest, ethical, tall, fluent English speaker, sociable, well-groomed, diplomatic, and demanding). The fourth question involved two scenarios that ultimately distinguished the students who believed ethics was involved with leadership from the students who did not. These questions were analyzed by using cluster analysis, which focused on what traits the students with different races tended to choose. This differentiated the students by race and also by the skill sets of leadership they recognize.

The fifth through the eighth questions asked for the demographic and family information of the students, including gender and highest level of parental education. The categories for race are taken from the U.S. Office of Management and Budget's standards for collecting and tabulating data on race and ethnicity.

After obtaining institutional review and administrative approval

at each school, the surveys were electronically delivered. The students were given approximately two weeks to return the survey. LimeSurvey, an Open Source web application to develop, publish and collect survey responses, was used to collect the survey data. For our data analysis, we clustered the leadership traits into fourteen different groups (see Appendix) to see if certain groups of students – based on race, gender and family education level – chose traits from one group over another.

When analyzing results, we omitted responses in which 5% or less of the students chose a given trait. We also did not analyze the responses of groups (e.g. specific racial sub-groups) that had less than a 5% representation relative to the entire surveying population. Also, the family member who attained the highest educational degree determined family education level. Lastly, for the purposes of this study, African-American and Hispanic students were categorized collectively into one minority group, as both of these groups are largely underrepresented at math and science academies.

RESULTS

After running a Likelihood-Ratio Chi-Square test, we found no significant relationship between the following groups: race/ethnicity and what students view as the least important trait in a leader (df=14, p=0.294); gender and what students viewed as the least important trait in a leader (df=7, p=.404); gender and what students viewed as the most important trait in a leader (df=5, p=.889); gender and whether or not students consider ethics when deciding leadership effectiveness (df=1, p=.653); family education and what they view as the most important trait in a leader (df=15, p=.171); and family education and whether students consider ethics when deciding leadership effectiveness (df=3, p=.725).

However, the same statistical test revealed a correlation between the following: race/ethnicity and what students believe the most important trait in a leader is (df=10, p=.048); race/ethnicity and whether students consider ethics when deciding leadership effectiveness (df=2, p=.014); and family education and what students consider to be the least important trait in a leader (df=21, p=.049).

Whites tended to consider ethical behavior as a core trait in an effective leader. Minority groups tended to favor communication and self-drive as the top traits needed for an effective leader. Asian students recognized overall confidence as the number one trait in an effective leader. Students from a family where neither parent earned a college degree did not recognize physical traits as being the least important trait within a leader. Instead, the most common trait recognized by this group as least important was "witty."

Figure 1 shows the number of Asians, Minorities and Whites that chose a leadership trait from a given group as being the most important quality in an effective leader.
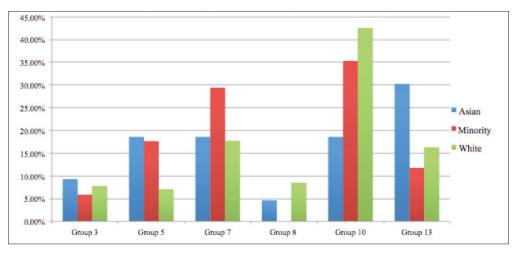
Figure 2 shows the number of participants per race that considered ethical behavior when determining the effectiveness of one's leadership.

Figure 3 shows the relationship between family education level and the trait he or she selected as the least important in terms of leadership effectiveness.

Figure 1.   Race/Ethnicity versus Perception of Most Important Leadership Trait

Figure 1. This graph shows the number of Asians, Minorities and Whites that chose a leadership trait from a given group as being the most important quality in an effective leader. 43 Asians', 17 Minorities' and 141 Whites' responses were analyzed, totaling 201 responses. To know which traits are categorized in which groups, please refer to the Appendix.
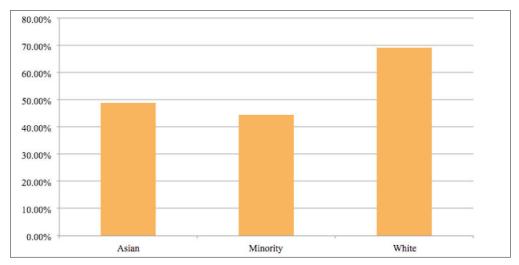
Figure 2.   Percentage of Students Who Consider Ethnics When Determining Leadership Effectiveness

Figure 2. This shows the percentage of participants per race that considered ethical behavior when determining the effectiveness of one's leadership. 43 Asians', 18 Minorities' and 143 Whites' responses were considered, totaling 204 responses.
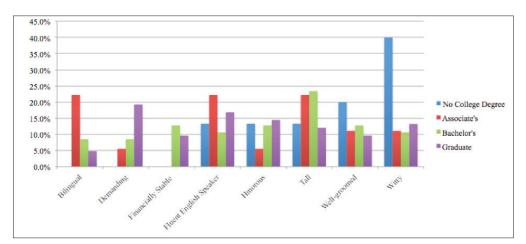

Figure 3.   Family Education Level versus Perceived Least Important Leadership Trait

Figure 3. This graph shows the relationship between family education level and what trait he or she selected as the least important in terms of leadership effectiveness. A total of 163 responses were analyzed, 18 of whom live in a family where the highest degree earned is an associate's degree, 47 where the highest degree earned is a bachelor's degree, 83 where the highest degree earned is a graduate degree, and 15 where no member earned a college degree.

DISCUSSION

With the cumulative differences in leadership perceptions between the groups, we can proceed to think about the implications of this study. One application is of our research is leadership training. Previous research indicates that educational leadership is an integral role in the success of effective schools (Bosker, Kruger, Witziers, 2003). However, leadership education programs are often missing from the high school curriculum. Our research indicates that a student's ethnic and class background has a strong influence over their understanding of leadership. Without leadership education programs, students' perspective on leadership may remain limited based on their ethnic and class backgrounds. To be sure, students may expand their understanding of leadership in the classroom or through extra-curricular activities. But that is not guaranteed. With leadership training programs that intentionally foster dialogue amongst students from different backgrounds, students can develop a more nuanced view of what effective leadership entails.

CONCLUSION

Amongst gifted and talented students at residential math and science academies in the United States, there is a clear relationship between one's race/ethnic and class background and their understanding of effective leadership. This diversity of thought is important, and leadership education programs should be implemented that encourage students to discuss these differences. Consequently, students will be able to expand their perspective on leadership. In this way, a student's understanding of leadership will not be limited based on their personal identities. Instead, they will be able to combine their unique perspective on leadership with that of others, in order to more fully define what effective leadership means.

APPENDIX

Survey Administered to Junior and Senior Students:

Consent Statement:

The purpose of this survey is to determine how gifted students at math and science academies across the nation view leaders. More specifically, we are interested in learning which traits and skills each student believes to define an effective leader. Note that you are not by any way forced, or required, to take this survey, and you may stop at any time. The survey is completely voluntary, anonymous, and is of minimal risk. If you do choose to participate in this survey, then you understand that your information to be shared with outside parties for a research investigation. Furthermore, by taking this survey, you commit to waive your written consent, given that this survey is of minimal risk, anonymous, and voluntary.

1st Question: List and rank three traits (1-3) that you believe define a leader (1 being the most important, and 3 being the least important of the three).

2nd Question: From the list below, rank five traits that you believe define a leader (1 being the most important, and 5 being the least important of the five).

List of traits:

- Charismatic
- Articulate
- Humorous
- Witty
- Bilingual
- Confident
- Honest
- Ethical
- Tall
- Fluent English speaker
- Adaptable
- Stable
- Sociable
- Goal-oriented
- Conscientious
- Well-groomed
- Diplomatic
- Demanding

3rd Question: From the list below, rank five traits that you believe least define a leader (5 being the least important of the five)

List of traits:

- Charismatic
- Articulate
- Humorous
- Witty
- Bilingual
- Confident
- Honest
- Ethical
- Tall
- Fluent English speaker
- Adaptable
- Stable
- Sociable
- Goal-oriented
- Conscientious
- Well-groomed
- Diplomatic
- Demanding

4th Question: Please read the two scenarios below and answer the following question.

Scenario 1: Bob, captain of the Science Olympiad team at Liberty High School, is very passionate about his team winning their state competition this year, which is taking place in just three days. By winning this competition, they can receive a full-ride tuition scholarship to a local university, and if they lose, half the team will most likely attend a poor community college, if any school at all. Their coach gives the team a list of questions to do for practice, but Bob's teammates do not think they will have enough time to complete the questions, correct their mistakes, and then be ready for their upcoming competition. Bob's teammates become extremely frustrated and urge Bob, as a leader, to take action. Thus, Bob decides to go into his coach's office, steal the answer key, and distribute the answers to his teammates. He listened to his teammates, took action, and made a difference for his team, which ultimately resulted in them winning their state competition for the first time in ten years. The great news is that everyone on a team received a scholarship, and they are all looking forward to earning their Bachelors degree now.

Scenario 2: Peter, captain of the Science Olympiad team at Dunkin High School, is very passionate about his team winning their state competition this year, which is taking place in just three days. By winning this competition, they can receive a full-ride tuition scholarship to a local university, and if they lose, half the team will most likely attend a poor community college, if any school at all. Their coach gives the team a list of questions to do for practice, but Peter's team does not think they will have enough time to complete the questions, correct their mistakes, and be ready for their upcoming competition. Peter's teammates become extremely frustrated and urge Peter, as a leader, to take action. Peter tries to calm his teammates down, and encourages them to answer as many questions as they can. As captain, Peter chose not to steal, sympathized with his teammates, and took the time to talk to them. In the end, however, they didn't have enough time to practice thoroughly, and Peter and his team lost at the state competition, resulting in no scholarships, even though it did not result in them winning the state competition.

Please state who you feel is the more effective leader, Bob or Peter, and briefly explain why:

_____

5th Question: Indicate your gender:

Male
Female

6th Question: What is your ethnicity?

Hispanic or Latino
Not Hispanic or Latino

7th Question: What is your race? Mark all that apply.

White
Black or African American
Asian
American Indian or Alaska Native
Native Hawaiian or Other Pacific Islander

8th Question: Are your parents divorced or separated?

Yes
No

9th Question: What is the highest level of education your mother received?

No High School diploma
High School Diploma
Some college (No degree)
Associate's Degree
Bachelor's Degree
Master's Degree
Doctorate Degree

10th Question: What is the highest level of education your father received?

No High School diploma
High School Diploma
Some college (No degree)
Associate's Degree
Bachelor's Degree
Master's Degree
Doctorate Degree

11h Question: What grade are you currently enrolled in?

9th Grade
10th Grade
11th Grade
12th Grade

Leadership Traits Categorized into Groups:

Group 1

Common Sense
Practical
Simple

Group 2

Accountable
Conscientious
Dedication
Dependable
Disciplined
Efficient
Engaged
Organized
Punctual
Responsible
Strong Work ethic
Systematic

Group 3

Able to Compromise
Adaptable
Available
Collaborative
Cooperative
Flexible
Open-mindedness
Public Relations
Self-less
Unifying
Versatile

Group 4

Altruistic
Approachable
Compassionate
Courteous
Empathetic
Good-for-all
Humble
Loyal
Patient
Respectful
Sacrifice
Sincere
Trustworthy

Group 5

Ambitious
Assertive
Decisive
Demanding
Driven
Goal-oriented
Initiative

Group 6

Empowering
Good at assigning roles
Guides others
Inspirational
Motivator
Role Model

Group 7

Articulate
Charismatic
Effective Communicator
Eloquent
Listens well
Negotiable
Passionate
Persuasive
Strong Presence

Group 8

Diplomatic
Impartial

Group 9

Analytical
Educated
Intelligent

Group 10

Ethical
Fair
Honest
Strong Integrity

Group 11

Amiable
Enthusiastic
Optimistic
Sociable

Group 12

Composed
Level-headed
Stable

Group 13

Confident
Courageous
Individualistic

Group 14 (Other)

Bilingual
Candor
Competent
Fluent English Speaker
Good-Looking
Humorous
Ingenuity
Irresponsible
Obedient
Reserved
Strong
Stubborn
Tall
Transparent
Well-groomed
Witty

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