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Leaders of the future : differentiating leaders among high school seniors

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Leaders of the Future:

Differentiating Leaders among High School Seniors

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The present study investigated high school leadership at two independent high schools using a peer nomination technique. Seniors nominated classmates who best fit each of 20 items indexing attributes of business world leaders. The seniors also nominated students they liked most and liked least. The leadership attributes were conceptualized to fit into four constructs: Other oriented, Inner oriented, Situationally oriented, and Derailment characteristics. The like most and like least items were used for measuring social impact and social preference and for classifying students into the sociometric groups of popular, controversial, rejected, neglected, and average. Test-retest correlations at a one month interval on the leadership constructs and sociometric indices ranged from .65 to .93. One-way analysis of variance revealed that student leaders vs. nonleaders had higher scores on the four leadership constructs, the social acceptance index, and the social impact scale. In addition, the leader group included more controversial and popular students than the nonleader group. A sub-analysis of the leaders revealed a clear and consistent differentiation between controversial leaders and popular, rejected, neglected, and average leaders. The construct validity and stability of the measures, differences between leaders and nonleaders, and differences among the leaders were discussed. Future research examining informal leaders and controversial leaders was suggested.

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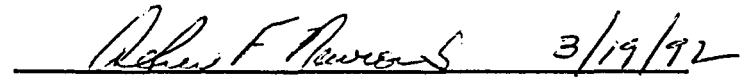

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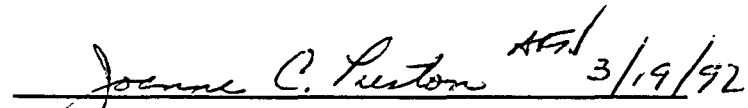

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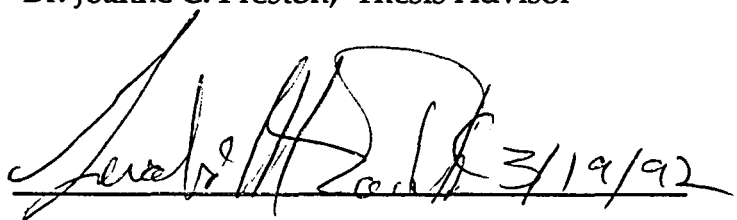

Dr. Gerald M. Eads

LEADERS OF THE FUTURE:
DIFFERENTIATING LEADERS AMONG HIGH SCHOOL SENIORS

By

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Leaders of the Future:
Differentiating Leaders among High School Seniors

Previous leadership research on high school students has focused on a narrow range of topics. The topics have generally consisted of either identifying a leadership profile in gifted students (Chauvin & Karnes, 1983; Karnes, Chauvin, & Trant, 1984) or attempting to differentiate leaders from nonleaders using survey data such as the Project TALENT national sample of high school students (Hynes, Richardson, & Asher, 1978-79; Karasick, Leidy, & Smart, 1968). The limited empirical research that has been conducted with high school students is surprising when examined in the context of the volume of studies that have been conducted on leadership in the business world (McCall, 1976; Stogdill, 1974). The business world, broadly defined to include public and private sector companies and organizations, serves as the basis of examining high school leadership.

In Stogdill's Handbook of Leadership (1974), over three thousand books and articles were examined dating back to the mid 1800's. McCall (1976) pointed out that about 170 studies a year appear on leadership. There appears to be a neglected area of research bridging the gap between high school leadership and business world leadership. The goal of the present study is to improve upon research methods used in previous high school leadership studies and to develop a broader, more comprehensive range of predictors for use in identifying high school leaders.

Previous high school leadership research was reviewed to determine potential areas for methodological improvement and assess which predictors have clearly demonstrated an ability to differentiate high school leaders from nonleaders. In addition, two separate areas of research: 1) studies of business world leaders and 2) research on student's social status, were reviewed for potential leadership predictors.

Differences between high school leaders and nonleaders

Previous high school leadership studies have largely focused in two main areas: 1) identification of a leadership profile in gifted students, and 2) differentiating leaders from nonleaders using self-report survey data. Both areas have had some limited success in identifying high school leaders.

Gifted students. Karnes and associates (1984) administered the High School Personality Questionnaire (HSPQ) (Catell & Catell, 1975) to 199 intellectually gifted eighth through twelfth grade students in a unique self-contained high school. The study attempted to differentiate students who held an elected leadership position from those who did not, based on the factors of the HSPQ. The HSPQ is based on the 16 Personality Factor Questionnaire (16PFQ) (Catell & Eber, 1966) and includes a Leadership Potential Score (LPS). Karnes and associates reported a leadership profile of intellectually gifted students as tenderminded, sensitive, tense, driven, group dependent, and conscientious. There was no significant difference on the LPS

between leader and nonleader groups.

In an earlier study, Chauvin and Karnes (1983) examined the differences between gifted students scores on the HSPQ and previously collected adult leader scores on the 16PFQ (Stice & Catell, 1960). The subjects were 181 gifted high school age students (defined as a Full Scale intelligence quotient of 130 or above on the WISC-R). It is unclear whether or not the gifted students actually held elected leadership positions or they were assumed to be leaders by virtue of being gifted. Chauvin and Karnes found that the gifted students scored higher on the factors of intelligence, enthusiasm, and self-sufficiency, but lower on conscientiousness and self-control than the adult leader group.

Survey data. Hynes and his colleagues (1978-79) used existing data from the 1960 longitudinal Project TALENT national sample of high school students to examine high school leadership. The predictors of leadership included self-report scales from the Project TALENT Student Activities Inventory and scales from several Project TALENT instruments that were related to leadership characteristics (cf., Stogdill, 1974).

Two measures of leadership were used by Hynes and his colleagues. The first consisted of self-report data on ability to make decisions, to influence others, and leadership ability, and the second on organizational activity, and number of elected positions occupied. Hynes and his colleagues reported that high school leaders are self-

confident, mature, of high socioeconomic status, interested in business management, socially sensitive, and full of vigor. These characteristics were related to both leadership measures.

In another study utilizing survey data, Karasick and associates (1968) used data from the The Purdue Opinion Panel, Poll 83, which sampled 12,000 high school students across the country. The study examined how leaders were different from the general high school population using a 53 item self-report questionnaire. The leadership criteria was whether a student had held a leadership position. Leaders and nonleaders did not differ on any personality characteristics. However, in terms of background information, Karasick and associates concluded that a student leader will generally fit the following profile: have a mother who graduated from high school or college, be a boy, have above average grades, plan to go to college, be from an above average socioeconomic family, and show a preference for the Republican party.

Upon reviewing the previous research on high school leadership research, several consist methodologies appear. First, self-report data was used in all the studies. This can be problematic in that self-report data tends to be skewed to more socially desirable traits and also results in only a single observation on each student. Second, the measures of leadership in each study were dichotomous, i.e., leader vs. nonleader. This approach is limiting in that there is unexplored potential for further delineation between leaders and nonleaders and

also within the leader group. Third, the leadership predictors were very specific in terms of the characteristic they were measuring rather than taking a broader approach as suggested by Stogdill (1974). As will be discussed later, the present study attempts to improve upon these methodologies.

Predictors of high school leadership

High school leadership studies have used a variety of predictors ranging from background information, such as having a mother who graduated from high school or college, to personality traits, such as self-confidence and enthusiasm, to abilities, such as abstract and arithmetic reasoning. The predictors that have been used are very specific in terms of the trait or characteristic they are measuring. To capture meaningful differences between leaders and nonleaders in high school, a broader perspective is needed. To accomplish this, two separate areas of research were reviewed for potential leadership predictors: 1) studies of business world leaders were examined for recurring themes and 2) research on student's social status was examined.

Business world leaders. In his analysis of leadership characteristics, Stogdill (1974) identified 43 characteristics that appeared in 163 leadership studies. These characteristics were grouped into the following areas: physical characteristics, social background, intelligence and ability, personality, task-related characteristics, and social characteristics. Stogdill stated that the

characteristics considered by themselves are of little significance. However, considering them in combination would appear to be a more advantageous approach to assessing leadership. Stogdill went on to point out this combination represents a sensible modification both to the trait approach, which suggests that each trait needs to be examined singly, and to the situationist approach, which examines only environmental demands and ignores individual differences.

Bennis (1984; Bennis & Nanus, 1985) spent several years interviewing 90 of the most successful and effective leaders across the nation in an attempt to find common traits among them. Bennis stated that in the beginning he found more diversity amongst the leaders than commonality. However, he identified four areas of competency that were evident in every leader: 1) Management of attention - an ability to draw others to them through an extraordinary focus of commitment, 2) Management of meaning - an ability to communicate ideas and visions and make them apparent and logical, 3) Management of trust - being reliable and constant, 'someone you can count on', and 4) Management of self - knowing one's strengths and limitations and using them effectively. Bennis' finding of common competencies among the 90 leaders is encouraging, given the diversity of their individual traits.

McCall and Lombardo (1983) compared 21 derailed executives with 20 executives who made it to the top position in their company. Derailed executives were defined as successful individuals who were

Student's social status. Student's social status is an area of research that has received little attention in high school leadership studies. Given the empirical support and revival of interest in sociometrics as a way of determining student's social status during the 1980's, this appears to be a neglected area of research.

The use of sociometric classification to categorize student's social status has evolved from a unidimensional approach (i.e., only nominating most liked students) to a two dimensional approach where students nominate both liked most and liked least peers (Coie, Dodge, & Coppotelli, 1982; Newcomb & Bukowski, 1983). The two dimensional model allows for a measure of social preference, the extent to which students are liked versus disliked by their peers, and social impact, the extent to which children are noticed by their peers. The sociometric classification model that was used in the present study (Coie, et al., 1982; Coie & Dodge, 1983) classifies students into one of five groups: popular, rejected, neglected, controversial, and average based on their standardized liked most and liked least scores and their standardized social impact (liked most plus liked least) and social preference (liked most minus liked least) scores.

Coie and his colleagues (1982) investigated the relationship between student's social status and 24 behavioral descriptors in a total of 311 third, fifth, and eighth graders. One of the behavioral descriptors used in the study was "leads peers." Coie and his colleagues found that there was a strong relationship between the

"leads peers" descriptor and like most score (r = .51, p < .001), but not with the like least score (r = -.08, n.s.). Coie and his colleagues also reported that popular and controversial students received higher scores on the behavioral descriptor "leads peers," than rejected, neglected or average students. While Coie and his colleagues reported only two planned contracts, popular vs. controversial and controversial vs. rejected, it appears both the popular and controversial children had significantly higher scores than the rejected, neglected, and average children.

The sociometric indices of liked most, liked least, social impact, and social preference were chosen for use as predictors of leadership in the present study for three reasons. First, the relationship between high school leadership in seniors and social status is an area that has yet to be explored in research. Second, the findings of Coie and his colleagues lend empirical support for investigating the relationship between social status and leadership ability. Third, including social status provides a broader perspective to capture differences between leaders and nonleaders in high school.

Present study

Methodological improvements. The methodology of the present study differs from previous high school leadership studies in three ways. First, a peer nomination technique was used rather than self-report data. Self-report data tends to be skewed to more socially desirable characteristics and represents only a single observation on

each student. The peer nomination technique allows for multiple observations on each student by the other students. The technique has been used successfully in previous research. For example, Bukowski and Newcomb (1984) tested approximately 300 fifth grade students five times during a one year period at 1, 5, 6, and 12 month intervals. Test-retest correlations for the sociometric indices in a one month interval ranged from .65 to .78.

Second, the measures of leadership were not dichotomous. Previous research has tended to categorize students as either leaders or nonleaders. Instead, the present study used three measures to differentiate leaders. The first was a trichotomous measure that groups students into leader, member, and nonmember groups. The second measure was a continuous leadership rating score where the particular leadership positions were rated with regard to how much influence they have on the group on a 1 to 7 scale. The third measure was the sociometric classification of the leaders into the popular, rejected, neglected, controversial and average groups.

Third, the current study differs from previous high school leadership studies in that a more comprehensive range of predictors were used to identify high school leaders. These predictors included the leadership constructs of Other oriented, Inner oriented, Situationally oriented, and Derailment characteristics, and the sociometric indices of social impact, social preference, and liked most and liked least students.

Hypotheses. The hypotheses were centered in two areas: 1) distinguishing between the leader, member and nonmember groups, and 2) differences within the leader group. With regard to distinguishing between the leader, member and nonmember groups, it is expected that leaders will have higher scores than both members and nonmembers and that members will have higher scores than nonmembers on all the leadership predictors. It is also expected that there will be more popular and controversial students in the leader group than in the member and nonmember groups.

With regard to examining differences within the leader group, all four leadership constructs are expected to be positive predictors of the leadership rating score. It is also expected that popular and controversial leaders will have higher scores than rejected, neglected, and average leaders on all four leadership constructs and the leadership rating score.

Method

Subjects

Students in the senior class from two high schools located in Richmond, Virginia participated in the study. The 182 subjects in Sample 1 and 220 subjects in Sample 2 were met in the fall at two different times 4 weeks apart. Participation rates for the senior class were 76.4%, 63.2%, 66.5%, and 58.7% for Sample 1, Time 1 and Time 2, and Sample 2, Time 1 and Time 2, respectively. In addition, one classroom of juniors from each school, 22 in Sample 1 and 26 in

Sample 2, participated in the study. Participation rates for the junior classrooms were 95.5%, 86.4%, 88.5%, and 88.5% for Sample 1, Time 1 and Time 2, and Sample 2, Time 1 and Time 2, respectively. Subjects from both high schools were predominately non-white.

Procedure

Within each homeroom on the same morning, seniors were administered a packet containing a consent form, the Peer Nomination form (see Appendix A), the Leadership Positions form (see Appendix B), and a class list containing all the senior names. Administration of the forms was conducted by the homeroom teacher. Any students absent that day were asked to complete the packet upon their return to school. One week later the juniors were administered a packet containing a consent form and the Leadership Rating form (see Appendix C). Four weeks later this process was repeated for both the seniors and juniors for the retest. As an incentive to participate, $1.00 for each student who completed both the test and the retest was contributed to their respective class funds. Students were informed of the incentive at the time of the retest. The same data collection procedures were used with Sample 1 and Sample 2.

Measures

Peer Nomination. - The Peer Nomination form (see Appendix A) was developed using 20 attributes of leaders identified by Bennis (1984), Bennis & Nanus (1985), Berry (1973), Kostiuk (1981), Lincoln, et

al. (1982), Lord, et al., (1986), Mann (1959), McCall and Lombardo (1978; 1983), Piotrowski and Armstrong (1989), and Stogdill (1974). These attributes were conceptualized to fit into the constructs of Other oriented, Inner oriented, Situationally oriented, and Derailment characteristics (see Table 1). The like most and like least items were included in the Peer Nomination form for classification into sociometric groups (see Coie & Dodge, 1983). The 22 items were numbered and then randomized using a random numbers table.

The form instructed the subjects to list three seniors in their high school, excluding themselves, that they think would best fit each of the items. Each student had a class list to aid them with the student names. In addition, the homeroom teacher had a list of definitions for the 20 attributes, provided by the experimenter, in case students had questions about the meaning of a word (see Appendix D).

Raw scores for all 22 items were assigned to each student according to the number of times they were nominated by the other students in their class. These scores were standardized within sample and time. The standardized liked most (LM) and liked least (LL) scores were used to derive a social impact (SI) score by summing the LM and LL scores and a social preference (SP) score by subtracting the LL score from the LM score. Both derived scores were then standardized. Classification into sociometric groups was defined according to the following criteria: popular, $SP \geq 1$, $LM > 0$, and $LL < 0$; rejected, $SP \leq -1$, $LM < 0$, and $LL > 0$; neglected, $SI \leq -1$,

LM < 0, and LL < 0; controversial, SI ≥ 1, LM > 0, and LL > 0; and all remaining children were classified as average (see Table 4 for resulting group sizes).

In the initial sociometric classification there were no neglected students at Time 2, Sample 1 or at Time 1 or Time 2, Sample 2. This was due to the fact that there were no standardized social impact scores less than negative one. Upon further examination of the data, it was determined that the reason there were no social impact scores less than negative one was due to a large number of missing data in the liked least item. The missing data resulted in a comparatively low mean for the liked least item and therefore a relatively high standardized liked least score for a student who received zero nominations (negative, but close to zero). Hence, when a social impact score was calculated (summing the standardized liked most and liked least scores, then restandardizing), there were no social impact scores less than negative one and therefore, no neglected students.

In conducting analyses on the sociometric groups, it did not seem reasonable to assume that there would not be any neglected students. Since neglected students are ignored by their peers with regard to being liked and disliked, it was decided that students who received zero nominations on both the liked most and liked least items would be treated as if they had a social impact score of negative one.

Leadership Positions and Group Classification. - The Leadership Positions form (see Appendix B) instructed the subjects to list any positions in the organizations at school or in the community that they were currently holding in their senior year, e.g., an officer, a captain, membership in a club or organization, etc. The form also instructed subjects to list any positions that they held during their junior year.

Subjects were classified into one of three groups, leaders, members, and nonmembers. Group classification was based on the positions listed on the form for their senior year and information from the teacher advisors on officers and members of organizations at the school. The subjects were classified as follows: leaders - they held an elected position within an organization; members - they participated in an organization, but did not hold an elected position; and nonmembers - they were neither members nor leaders (see totals in Table 4 for resulting group sizes).

Leadership Rating. The Leadership Rating form (see Appendix C) contained a list of the various leadership positions based on the positions listed by the seniors on the Leadership Positions form and information gathered on officers from the teacher advisors of the organizations at the school. The juniors were instructed to rate the positions on a 1 to 7 scale with regard to how much influence the position has on the group. The scale included labels anchoring at each end, 1 = High and 7 = Low. Each junior's score was standardized within subject across all positions. Due to the design of

the scale, once the scores were standardized, the position with the largest negative value had the highest influence. For ease of interpretation in the analyses, the leadership rating scores were multiplied by -1 so the position with the highest influence had the highest positive score. An average leadership rating score was then calculated for each position. These leadership rating scores were assigned to the senior students who held those positions. In cases where a senior student held more than one leadership position, the highest score was used.

Results

Analysis of the data from the two samples was structured in four steps: 1) the construct validity of the attributes used to define the leadership constructs, 2) the test-retest reliability of the leadership constructs and the sociometric indices, 3) the differences among the leader, member, and nonmember groups on the leadership constructs, sociometric indices, and sociometric group variables, and 4) a sub-analysis on the leader group.

Construct validity. The construct validity of attributes used to define the leadership constructs was assessed by a confirmatory factor analysis and Cronbach's alpha, a measure of internal consistency. The factor loadings of the attributes on each leadership construct are presented in Table 1. All factor analyses extracted only

Insert Table 1 about here

one factor with an eigen value greater than 1; all eigen values were between 1.4 and 3.3. All factor loadings appear to be relatively stable from Time 1 to Time 2 and between Sample 1 and Sample 2. With the exception of the "energetic" attribute within the Inner construct and the "arrogant" and "insensitive to others" attributes within the Derailment construct, all factor loadings are moderately high to high. The Cronbach alphas for each of the leadership constructs are also presented in Table 1. The data indicate good internal consistency within each leadership construct across both time and sample.

The confirmatory factor analyses and Cronbach coefficient alphas indicate that the attributes used to define the leadership constructs are both valid and stable. After finding the construct validity and stability of the leadership constructs satisfactory, construct scores were derived by summing the standardized scores of the five attributes defining each of the leadership constructs (e.g., Other oriented construct score = "has a lot of friends" score + "cooperative" score + "listens to everyone's opinion" score + "communicates well" score + "dependable" score). These four derived leadership construct scores were then standardized.

Test-retest reliability. Test-retest reliability of the leadership constructs and the sociometric indices was assessed using the

Pearson product-moment correlation between Time 1 and Time 2, 1-month interval, for both samples. As shown in Table 2, the results

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Insert Table 2 about here

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indicate good reliability for both the leadership constructs and sociometric indices in both samples. All correlation coefficients are greater than .83 for the leadership constructs and greater than .65 for the sociometric indices.

Group differences. One-way analysis of variance was used to determine group differences between leaders, members, and nonmembers on the leadership constructs and sociometric indices.

Insert Table 3 about here

Table 3 presents means, standard deviations, main effects, and group differences. Examination of the results across time and sample indicate that the leaders have significantly higher scores than members and nonmembers on all four leadership constructs and on the social impact and liked most indices at a significance level of $p<.001$. Leaders also have higher scores than members and nonmembers on the social preference index in Sample 2, but not in Sample 1. There are no significant differences between members and nonmembers across time and sample on any of the leadership

constructs or on any of the sociometric indices.

Chi-square analysis was used to determine differences between leader, member, and nonmember expected frequencies of sociometric classification. Table 4 presents the sociometric group sizes within

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Insert Table 4 about here

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the leader, member, and nonmember groups. Chi-square statistics (df = 4) for Sample 1, Time 1 and Time 2, and Sample 2, Time 1 and Time 2, between the leader and member groups were 9.36, 10.21, 12.82, and 12.45, and between the leader and nonmember groups were 17.39, 23.45, 16.92, and 16.54. All differences between the leader and member group were significant at $p<.05$, except Sample 1, Time 1 where $p=.053$. All differences between the leader and nonmember group were significant at $p<.01$. There were no significant differences between the member and nonmember groups in either sample or time. The results from Table 4 indicate a preponderance of neglected subjects in the member and nonmember groups compared to the leader group, and a higher number of controversial subjects in the leader group compared to the member and nonmember groups.

Leader group analyses. The leader group was investigated separately in two ways. The first analysis used the leadership constructs to predict the leadership rating score. The second analysis examined differences among leaders in different

sociometric groupings on the leadership constructs and the leadership rating score.

Multiple Regression analysis was used to predict the leadership rating score from scores on the leadership constructs. Regression weights, Beta's, and t values are presented in Table 5. While the

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Insert Table 5 about here

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overall models across time and sample are significant, there is little consistency in the standardized regression weights across sample and time. The leadership constructs do not appear to be consistent predictors of the leadership rating score.

One-way analysis of variance was used to examine differences between the sociometric groups on the leadership constructs and the leadership rating score. Upon examination of the sociometric group classifications within the leader group (see Table 4), it was decided to combine the samples within time for this analysis. Table 6 presents

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Insert Table 6 about here

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means, standard deviations, main effects, and group differences. Examination of the results indicate that controversial leaders have consistently higher scores, both at Time 1 and Time 2, than rejected, neglected, and average leaders on the Other, Inner, and Situationally

oriented constructs. Controversial leaders also have consistently higher scores across time than neglected and average leaders on the Derailment construct. The results from Time 2 indicate that popular leaders have consistently higher scores than rejected, neglected, and average leaders on the Other, Inner, and Situationally oriented constructs. Popular leaders also have consistently higher scores at Time 2 than neglected and average leaders on the Derailment construct.

There were no significant differences between rejected, neglected and average students on any of the leadership constructs at either time. In addition, except for the Derailment construct at Time 1, there were no significant differences between popular and controversial leaders on any of the leadership constructs at either time.

Examination of the leadership rating score between sociometric groups yielded no clear findings. There were no significant differences between any of the sociometric groups at either time on the leadership rating score.

Discussion

The present study investigated leadership in high school seniors. Although previous high school leadership research has had some limited success in differentiating leaders from nonleaders, the present study found a clear differentiation between leaders and nonleaders on the leadership predictors. The present study also

found consistent differences among the leaders with regard to their sociometric classification. Discussion of the findings will be structured in three parts: 1) stability of the measures, 2) differences between leaders, members, and nonmembers, and 3) differences among the leaders.

Stability

The results from the test-retest analysis for both samples indicated exceptional stability of the leadership measures, ranging from .65 to .83. This stability indicates that students are consistently associated with the leadership measures and that the peer nomination technique is an appropriate measurement tool for the leadership constructs and sociometric indices.

The stability of the sociometric indices is consistent with previous findings by Bukowski & Newcomb (1984), where test-retest correlations in a one month interval ranged from .65 to .78. The present study, however, provides new information with regard to the stability of sociometric indices. Whereas Bukowski & Newcomb tested fifth graders, the present study replicated their stability results with twelfth grade students. The sociometric indices appear to be stable for both high school students as well as elementary school students. The results of the present study support further investigation of student's social status with high school students.

Leaders, members, and nonmembers

Foremost among the findings was that leaders had significantly

higher scores, across both time and sample, than both members and nonmembers on leadership predictors of Other oriented, Inner oriented, Situationally oriented, Derailment characteristics, Social impact, and Acceptance (liked most item). In addition, there were proportionally more controversial and popular students, across both time and sample, in the leader group than in the member and nonmember groups.

Acceptance. The finding that leaders have higher scores on the Acceptance measure than member and nonmembers confirms the results of Coie and his colleagues (1982). However, the present study shows that there is a relationship between the Acceptance score and leadership for twelfth graders in addition to the third, fifth, and eighth graders investigated by Coie and his colleagues. It appears that the relationship between leadership and the Acceptance measure transcends grade levels.

The question that the present study does not answer is whether the students who are leaders and have high Acceptance scores in elementary and middle school are the same as those in high school. While the relationship between leadership and the Acceptance measure occurs at various grade levels, it is uncertain whether the measures would be stable across a ten year period. This question would need to be answered through a longitudinal study that followed students from elementary school through high school.

Leadership constructs. The Other, Inner, Situational, and Derailment leadership constructs, chosen from research on business world leaders, consistently differentiated leaders from members and nonmembers. These results are consistent with the suggestion of Stogdill (1974), who stated that in future leadership research, specific personality characteristics should not be considered by themselves but in combination, and findings by Bennis (1984; Bennis & Nanus, 1985) who discovered four common areas of competency among 90 diverse leaders from across the nation. The results also support work done by McCall and Lombardo (1983) which suggests that leaders possess not only positive attributes but also negative ones.

The finding that the leadership constructs can identify leaders in high school indicates that there maybe a relationship between leaders in the business world and high school leaders. High school leaders, similar to their business counterparts, possess many positive attributes as well as some negative attributes. The results suggest that it is advantageous for leaders to possess some negative attributes. Identification of leaders in high school could encourage these students to attend programs or classes that would strengthen their positive attributes and minimize, but not necessarily eradicate, their negative ones. This type of training could reduce the number of derailed executives (see McCall & Lombardo, 1983) that are seen in the future.

Sociometric Classification. The results from the present study also support findings by Coie and his colleagues (1982), who found a greater proportion of controversial and popular students in the leader group than in the member and nonmember groups. These results are not surprising when viewed with the finding that leaders had higher scores on the Acceptance measure (most liked item) than members and nonmembers. By definition, both controversial and popular students are actively liked by their peers and would have higher Acceptance scores than rejected, neglected, or average students. So if there were more controversial and popular students in the leader group than in the member and nonmembers groups, it is consistent that leader group would have a higher Acceptance score than the other groups.

It is intuitive to think of high school leaders as being popular; however, it is not as obvious to think of high school leaders as controversial. The controversial students are both actively liked and disliked by their peers as opposed to the popular students who are actively liked but not actively disliked. These results suggest that it is not the Acceptance score alone that differentiates a student as a leader, but that being actively disliked by some peers also plays a significant role. This finding confirms an investigation by McCall and Lombardo (1983) which indicates that leaders possess some negative attributes in addition to positive ones.

Another interesting finding in the sociometric classification deals

with the neglected students. Neglected students are ignored, or not actively liked or disliked, by their peers. While it is not surprising to find a large proportion of neglected students in the nonmember group, it is quite surprising to find any in the leader group. It would seem counterintuitive that students could be ignored by their peers and also hold a leadership position. One possible explanation for the neglected leaders would be if club members were only given a choice of electing someone they disliked a great deal or someone about whom they were ambivalent. The club members might chose the student that they do not feel strongly about either way, i.e., the neglected leader, rather than the student they strongly dislike. While the neglected leaders may just be an anomaly, the phenomena may warrant future study.

Members vs nonmembers. The present results do not support the hypothesis that members will have higher scores on the leadership predictors than nonmembers, as there were no significant differences between the groups across time or sample. This lack of differentiation appears to lend support for the use of a dichotomous leader/nonleader leadership measure (Karnes et al., 1984; Karasick et al., 1968) in future research. However, caution should be used in only examining the elected leaders and ignoring the other members in the group.

There is a large body of research that has investigated the permissive or informal leaders in a group (see Stogdill, 1974).

Informal leaders would be students who do not hold elected positions but who can exert as much control and influence on a group as the leaders can. There is most likely a subgroup of students within the members who are informal leaders. This group would be categorized by being in the member group and also as receiving high scores on the leadership predictors, but not holding a leadership position. An investigation of informal leaders was not integrated into the present study.

Leaders

Foremost among the findings within the leaders group was a clear and consistent differentiation of controversial leaders from the other sociometric groups on the leadership constructs. This finding confirms, in part, results of Coie and his colleagues (1982) where controversial and popular students received higher scores on the behavioral descriptor "leads peers," than rejected, neglected, or average students. The present study, however, did not find consistent results with regard to the popular leaders.

Controversial leaders are both actively liked and actively disliked by their peers; hence, they are associated with both positive and negative social attributes. The leadership constructs can be conceptualized to fit into those that are socially positive, i.e., Other, Inner, and Situationally oriented, and socially negative, i.e., Derailment characteristics. Controversial leaders are associated with both the positive and negative constructs. These results support

a study by McCall and Lombardo (1983) which shows that business leaders possess not only positive attributes but also negative ones.

The results from analysis of the leader group with regard to sociometric classification suggest that the controversial leaders are 'the leaders among the leaders.' The controversial leaders received higher scores than nearly all the other leader groups on every leadership construct. These findings suggest that the 'best' leaders are those students who are not only strongly liked by their peers, i.e., popular, but also actively disliked by some of their peers, i.e., controversial. This new evidence on controversial leaders in high school, and their similarities with business leaders, should help to direct future leadership research efforts.

The analysis examining the use of the leadership constructs to predict the leadership rating score revealed inconsistent findings. While there was some consistency with regard to the regression weights across time, the results were inconsistent between samples. In addition, though it was hypothesized that the constructs would all be positive predictors, several of the constructs had negative relationships. The leadership constructs do not appear to be consistent predictors of the leadership rating score. Some possible explanations for this are 1) the rating scale was confusing with an anchor of 1 = High and 7 = Low, and 2) the sample sizes may not have been large enough (N = 19 to 23).

Summary

In conclusion, the main findings from this study are three-fold. First, the stability of the leadership measures across time, a 1-month interval, indicates that high school students are consistently associated with the leadership measures and that the peer nomination technique is an appropriate measurement tool for the leadership constructs and sociometric indices. Second, leaders had significantly higher scores, across both time and sample, than both members and nonmembers on all leadership constructs. This finding indicates that there maybe a relationship between leaders in the business world and high school leaders. Third and finally, there are clear and consistent findings with regard to controversial leaders. Controversial leaders received higher scores than nearly all the other leader groups on every leadership construct. Controversial leaders appear to be 'the leaders among the leaders.' This new evidence on controversial leaders in high school, and their similarities with business leaders, should help to direct future leadership research efforts.

References

Bennis, W. (1984). The 4 competencies of leadership. Training and Development Journal, 38, 14-19.

Bennis, W., & Nanus, B. (1985). Leaders: the strategies for taking charge. Philadelphia: Harper & Row.

Berry, D. (October, 1973). How executives account for their own success. Business Horizons, 31-42.

Bukowski, W. M., & Newcomb, A. F. (1984). Stability and determinants of sociometric status and friendship choice: A longitudinal perspective. Developmental Psychology, 20, 941-952.

Catell, R. B., & Catell, M. D. (1975). Handbook for the junior-senior high school personality questionnaire. Champaign, IL: Institute for Personality & Ability Testing.

Catell, R. B., & Eber, H. W. (1966). Manual for sixteen personality factor questionnaire. Champaign, IL: Institute for Personality & Ability Testing.

Chauvin, J. C., & Karnes, F. A. (1983). A leadership profile of secondary gifted students. Psychological Reports, 53, 1259-1262.

Coie, J. D., & Dodge, K. A. (1983). Continuities and changes in children's social status: A five-year longitudinal study. Merrill-Palmer Quarterly, 29, 261-282.

Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. Developmental Psychology, 18, 557-570.

Hynes, K., Richardson, W. B., & Asher, W. (1978-79). Project TALENT revisited: Cross-validating self-report measures of leadership. Journal of Experimental Education, 47, 106-111.

Karasick, B., Leidy, T. R., & Smart B. (1968). Characteristics differentiating high school leaders from nonleaders: Purdue Opinion Panel Poll 83. Lafayette, IN: Purdue University.

Karnes, F. A., Chauvin, J. C., & Trant, T. J. (1984). Leadership profiles as determined by the HSPQ of students identified as intellectually gifted. Roeper Review, 7, 46-48.

Kostiuk, E. S. (March, 1981). CEO: A study of behavioral styles of chief executive officers. Manoa, HI: Performax Systems International, Inc.

Lincoln, D. J., Pressley, M. M., & Little, T. (1982). Ethical beliefs and personal values of top level executives. Journal of Business Research, 10, 475-487.

Lord, R. G., De Vader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures. Journal of Applied Psychology, 71, 402-410.

Mann, R. D. (1959). A review of the relationships between personality and performance in small groups. Psychological Bulletin, 56, 241-270.

McCall, M. W. (1976). Leadership research: choosing gods and devils on the run. Journal of Occupational Psychology, 49, 139-153.

McCall, M. W., & Lombardo, M. M. (Eds.). (1978). Leadership: Where else can we go? Durham, NC: Duke University Press.

McCall, M. W., & Lombardo, M. M. (1983). What makes a top executive? Psychology Today, pp. 82-86.

Newcomb, A. F., & Bukowski, W. M. (1983). Social impact and social preference as determinants of children's peer group status. Developmental Psychology, 19, 856-867.

Piotrowski, C., & Armstrong, T. R. (1989). The CEO: An analysis of the CNN telecast 'Pinnacle.' Psychological Reports, 65, 435-438.

Stice, G. F., & Catell, R. B. (1960). The dimensions of groups and their relations to the behavior of members. Champaign, IL: Institute for Personality & Ability Testing.

Stogdill, R. M. (1974). Handbook of leadership. New York: The Free Press.

Table 1

Factor Loadings of Leadership Attributes on the Leadership Constructs and Internal Consistancy of the Leadership Constructs

	Sample 1		Sample 2	
	T1	T2	T1	T2
Other oriented				
Has a lot of friends	.509	.542	.453	.396
Cooperative	.865	.692	.658	.722
Listens to everyone's opinion	.893	.848	.955	.962
Communicates well	.877	.812	.889	.911
Dependable	.854	.839	.854	.911
Cronbach alpha	.896	.864	.870	.882
Inner oriented				
Knows their own strengths and limitations	.841	.723	.871	.868
Honest	.829	.740	.755	.827
Energetic	.337	.292	.204	.163
Not easily frustrated	.735	.587	.682	.685
Self-confident	.813	.700	.810	.848
Cronbach alpha	.825	.750	.791	.804

(table continues)

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(table continues)

Table 2

Test-Retest Correlations on the Leadership Constructs and Sociometric Indexes Across Time 1 and Time 2, 1-Month Interval

	Sample 1	Sample 2
Other oriented	.903	.938
Inner oriented	.834	.889
Situationally oriented	.913	.924
Derailment characteristics	.901	.918
Social Impact	.748	.728
Social Preference	.679	.721
Like Most	.656	.761
Like Least	.790	.686

Table 3

Analysis of Variance Results of the Leadership Constructs and Sociometric Indexes on Leader, Member, and Nonmember Groups

	Leader Mean (S.D.)	Member Mean (S.D.)	Nonmember Mean (S.D.)	F
Sample 1, Time 1				
Other	.924[a] (1.72)	-.199[b] (.463)	-.302[b] (.392)	27.69***
Inner	.896[a] (1.69)	-.211[b] (.458)	-.275[b] (.495)	25.38***
Situationally	.908[a] (1.79)	-.232[b] (.383)	-.262[b] (.342)	26.18***
Derailment	.905[a] (1.67)	-.176[b] (.575)	-.313[b] (.391)	26.51***
Social Impact	.735[a] (1.33)	-.113[b] (.869)	-.282[b] (.684)	16.26***
Social Preference	.136[a] (1.49)	-.024[a] (.810)	-.050[a] (.841)	.47
Like Most	.622[a] (1.22)	-.097[b] (.896)	-.237[b] (.824)	11.05***
Like Least	.431[a] (1.57)	-.064[b] (.782)	-.167[b] (.699)	5.02**
Sample 1, Time 2				
Other	.986[a] (1.64)	-.221[b] (.487)	-.314[b] (.451)	32.80***
Inner	1.02[a] (1.54)	-.187[b] (.546)	-.364[b] (.496)	37.06***
Situationally	1.04[a] (1.63)	-.208[b] (.494)	-.355[b] (.350)	38.65***
Derailment	.886[a] (1.59)	-.180[b] (.599)	-.299[b] (.531)	24.96***
Social Impact	.698[a] (1.35)	-.057[b] (.887)	-.315[b] (.662)	15.38***
Social Preference	.234[a] (1.62)	-.048[a] (.800)	-.079[a] (.692)	1.38
Like Most	.667[a] (1.39)	-.074[b] (.818)	-.282[b] (.724)	13.42***
Like Least	.343[a] (1.57)	-.008[ab] (.875)	-.174[b] (.625)	3.52*

	Leader Mean (S.D.)	Member Mean (S.D.)	Nonmember Mean (S.D.)	F
		Sample 2, Time 1		
Other	.856[a] (1.90)	-.107[b] (.440)	-.286[b] (.345)	24.64***
Inner	.769[a] (1.77)	-.136[b] (.575)	-.226[b] (.557)	18.56***
Situationally	.741[a] (1.90)	-.119[b] (.475)	-.227[b] (.452)	17.10***
Derailment	.636[a] (1.66)	-.116[b] (.803)	-.184[b] (.576)	12.02***
Social Impact	.543[a] (1.32)	-.078[b] (.903)	-.174[b] (.827)	8.65***
Social Preference	.466[a] (1.22)	-.034[b] (1.06)	-.174[b] (.769)	6.55**
Like Most	.715[a] (1.44)	-.080[b] (.823)	-.245[b] (.728)	16.23***
Like Least	.071[a] (1.09)	-.033[a] (1.12)	-.005[a] (.866)	.15
		Sample 2, Time 2		
Other	.761[a] (1.97)	-.134[b] (.416)	-.224[b] (.343)	18.08***
Inner	.806[a] (1.76)	-.158[b] (.471)	-.224[b] (.612)	20.55***
Situationally	.810[a] (1.84)	-.178[b] (.440)	-.211[b] (.521)	20.72***
Derailment	.609[a] (1.66)	-.084[b] (.771)	-.198[b] (.618)	11.14***
Social Impact	.589[a] (1.28)	-.121[b] (.842)	-.159[b] (.887)	10.06***
Social Preference	.428[a] (1.33)	-.134[b] (.905)	-.081[b] (.855)	5.14**
Like Most	.716[a] (1.46)	-.181[b] (.716)	-.169[b] (.797)	15.53***
Like Least	.099[a] (1.13)	.013[a] (1.01)	-.053[a] (.938)	.35

Note. Means with different superscripts differ significantly at $p<.05$ using the Scheffe comparison test. For main effects: $df = (2, 179)$ for Sample 1 and $df = (2, 217)$ for Sample 2. *$p<.05$, **$p<.01$, ***$p<.001$.

Table 4

Sociometric Classification for Leaders, Members, and Nonmembers

	Leader		Member		Nonmember	
	N	(Group%)	N	(Group%)	N	(Group%)
Sample 1, Time 1						
Popular	5	(12.8)	8	(11.6)	8	(10.8)
Rejected	2	(5.1)	4	(5.8)	4	(5.4)
Neglected	3	(7.7)	9	(13.0)	17	(23.0)
Controversial	9	(23.1)	3	(4.3)	1	(1.4)
Average	20	(51.3)	45	(65.2)	44	(59.5)
Total	39	(21.4)	69	(37.9)	74	(40.7)
Sample 1, Time 2						
Popular	7	(17.9)	5	(7.2)	3	(4.1)
Rejected	3	(7.7)	4	(5.8)	3	(4.1)
Neglected	2	(5.1)	13	(18.8)	21	(28.4)
Controversial	7	(17.9)	4	(5.8)	1	(1.4)
Average	20	(51.3)	43	(62.3)	46	(62.2)
Total	39	(21.4)	69	(37.9)	74	(40.7)

(table continues)

	Leader		Member		Nonmember	
	N	(Group%)	N	(Group%)	N	(Group%)
Sample 2, Time 1						
Popular	10	(23.3)	9	(11.7)	7	(7.0)
Rejected	1	(2.3)	8	(10.4)	5	(5.0)
Neglected	8	(18.6)	23	(29.9)	29	(29.0)
Controversial	9	(20.9)	4	(5.2)	6	(6.0)
Average	15	(34.9)	33	(42.9)	53	(53.0)
Total	43	(19.5)	77	(35.0)	100	(45.5)
Sample 2, Time 2						
Popular	10	(23.3)	10	(13.0)	12	(12.0)
Rejected	4	(9.3)	10	(13.0)	7	(7.0)
Neglected	5	(11.6)	26	(33.8)	36	(36.0)
Controversial	7	(16.3)	3	(3.9)	3	(3.0)
Average	17	(39.5)	28	(36.4)	42	(42.0)
Total	43	(19.5)	77	(35.0)	100	(45.5)

Note. Percentages may not sum to 100.0 due to rounding.

Table 5

Multiple Regression Analysis of the Leadership Constructs on the Leadership Rating Score

	Sample 1					
	Time 1			Time 2		
	Weight	Beta	t	Weight	Beta	t
Other	.152	.500	1.82	.102	.352	1.22
Inner	.251	.810	1.57	.054	.180	.48
Situationally	-.318	-1.07	-2.03	-.130	-.458	-1.10
Derailment	.141	.450	1.55	.167	.552	2.01
Overall Model	F = 8.23, p<.001, R2=.486			F=5.37, p<.01, R2=.381		
	Sample 2					
	Time 1			Time 2		
	Weight	Beta	t	Weight	Beta	t
Other	.043	.211	.51	.015	.075	.17
Inner	.056	.252	.46	.260	1.16	3.02
Situationally	.096	.461	.89	-.171	-.793	-1.26
Derailment	-.083	-.345	-.97	.032	.130	.37
Overall Model	F = 5.60, p<.01, R2=.365			F=6.59, p<.001, R2=.403		

Note. t values with an absolute value greater than 1.96 are significant at p<.05.

Table 6

ANOVA of Constructs and Leadership Rating Score on Sociometric Groups within Leader Group

	Time 1					
	Popular	Rejected	Neglected	Controversial	Average	F
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Other	1.45 (1.43)	-.424 (.204)	-.230 (.366)	2.02 (2.80)	.531 (1.22)	4.61 **
post hoc	N	C	P, C	R, N, A	C	
Inner	1.18 (1.25)	-.404 (.171)	-.077 (.428)	1.91 (2.59)	.517 (1.36)	3.82 **
post hoc	n.s.	C	C	R, N, A	C	
Situationally	1.05 (1.22)	-.319 (.165)	-.141 (.403)	1.89 (2.83)	.568 (1.51)	3.08 *
post hoc	n.s.	C	C	R, N, A	C	
Derailment	.632 (1.06)	.475 (1.32)	-.306 (.324)	2.23 (2.36)	.430 (1.24)	6.40 ***
post hoc	C	n.s.	C	P, N, A	C	
Rating Score	-.377 (.390)	-.410 (.238)	-.140 (.350)	-.340 (.504)	-.287 (.403)	.64
post hoc	n.s.	n.s.	n.s.	n.s.	n.s.	
Group Size (N)	15	3	11	18	35	

(table continues)

	Time 2					
	Popular	Rejected	Neglected	Controversial	Average	F
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Other	2.16 (2.34)	-.365 (.201)	-.076 (.588)	1.76 (2.53)	.349 (.852)	6.40 ***
post hoc	R, N, A	P, C	P,C	R, N, A	P, C	
Inner	2.14 (1.53)	-.300 (.391)	.003 (.584)	1.85 (2.46)	.390 (1.02)	7.82 ***
post hoc	R, N, A	P, C	P, C	R, N, A	P, C	
Situationally	1.88 (1.99)	-.373 (.271)	.059 (.652)	1.79 (2.64)	.556 (1.05)	4.72 **
post hoc	R, N, A	P, C	P, C	R, N, A	P, C	
Derailment	1.44 (1.97)	.490 (1.22)	-.199 (.209)	1.63 (2.20)	.312 (1.14)	3.46 *
post hoc	N, A	n.s.	P, C	N, A	P, C	
Rating Score	-.472 (.438)	-.340 (.255)	.015 (.389)	-.295 (.431)	-.216 (.380)	2.27
post hoc	n.s.	n.s.	n.s.	n.s.	n.s.	
Group Size (N)	17	7	7	14	37	

Note. For post hoc test, n.s. represent no significant group differences, letters indicate significant differences using Fischer PLSD ($p<.05$) from that group; P=popular, R=rejected, N=neglected, C=controversial, A=average. For main effects: df =(4, 77) for Time 1 and Time 2.
*$p<.05$. **$p<.01$. ***$p<.001$.

Appendix A

Peer Nomination Form

Please list three seniors in your high school, excluding yourself, that you think would best fit each of the following. If you do not understand any of the questions or words, please ask your teacher and your teacher will help you.

1. Someone who listens to everyone's opinion
   a) _____
   b) _____
   c) _____

2. Someone who is energetic
   a) _____
   b) _____
   c) _____

3. Someone who is arrogant
   a) _____
   b) _____
   c) _____

4. Someone who is analytical
   a) _____
   b) _____
   c) _____

5. Someone who is lucky
   a) _____
   b) _____
   c) _____

6. Students who you like most
   a) _____
   b) _____
   c) _____

7. Someone who is goal oriented
   a) _____
   b) _____
   c) _____

8. Someone who is dependable
   a) _____
   b) _____
   c) _____

9. Someone who will do what is necessary to succeed
   a) _____
   b) _____
   c) _____

10. Someone who is ambitious
    a) _____
    b) _____
    c) _____

11. Someone who is not easily frustrated
    a) _____
    b) _____
    c) _____

12. Someone who is honest
    a) _____
    b) _____
    c) _____

Appendix A (continued)

13. Someone who is self-confident

a) _____

b) _____

c) _____

14. Someone who communicates well

a) _____

b) _____

c) _____

15. Someone who is flexible

a) _____

b) _____

c) _____

16. Someone who is organized

a) _____

b) _____

c) _____

17. Someone who does everything themselves

a) _____

b) _____

c) _____

18. Someone who is insensitive to others

a) _____

b) _____

c) _____

19. Someone who has a lot of friends

a) _____

b) _____

c) _____

20. Someone who is cooperative

a) _____

b) _____

c) _____

21. Students who you like least

a) _____

b) _____

c) _____

22. Someone who knows their own strengths and limitations

a) _____

b) _____

c) _____

__-__-____

Note. Items #6 and #21 were used for measuring social impact and preference and for sociometric classification.

Appendix B

Leadership Positions Form

Please list any positions that you held in the organizations at school or in the community **during your junior year** (for example, an officer, a captain, membership in a club or honor society, a representative, etc.).

_____

_____

_____

_____

_____

_____

_____

Please list any positions that you are **currently** holding in the organizations at school or in the community **in your senior year** (for example, an officer, a captain, membership in a club or honor society, a representative, etc.).

_____

_____

_____

_____

_____

_____

_____

Appendix C

Leadership Rating Form

(Example)

Please rate the positions listed below, with regard to *how much influence* they have on the students in your high school, on the following scale:

1 2 3 4 5 6 7
High Low

	High						Low
Student Cooperative Association (SCA) - Homeroom Representative	1	2	3	4	5	6	7
National Honor Society - Secretary	1	2	3	4	5	6	7
Majorette Squad - Captain	1	2	3	4	5	6	7
Girl Scout Troop Leader	1	2	3	4	5	6	7
Student Cooperative Association (SCA) - Vice President	1	2	3	4	5	6	7
Health Career Club - President	1	2	3	4	5	6	7
Student Cooperative Association (SCA) - Reporter	1	2	3	4	5	6	7
Distributive Education Club of America (DECA) - Secretary	1	2	3	4	5	6	7
Journalism Club - Secretary	1	2	3	4	5	6	7
National Honor Society - Vice President	1	2	3	4	5	6	7
Student Cooperative Association (SCA) - Alternate Representative	1	2	3	4	5	6	7
Future Business Leaders of America (FBLA) - Vice President	1	2	3	4	5	6	7
Science Club - Treasurer	1	2	3	4	5	6	7
Distributive Education Club of America (DECA) - Historian	1	2	3	4	5	6	7
Future Business Leaders of America (FBLA) - Secretary	1	2	3	4	5	6	7
Senior Class - President	1	2	3	4	5	6	7

Appendix D

Attribute Definitions

1. Someone who **listens to everyone's opinion** - pays attention to what others have to say, open-minded.
2. Someone who is **energetic** - has a lot of energy, is very active or vigorous, or is always doing something.
3. Someone who is **arrogant** - is very conceited or overly proud of themselves.
4. Someone who is **analytical** - able to understand things that are confusing, or breaks complex subjects into simple parts you can understand.
5. Someone who is **lucky** - always gets the breaks, or always in the right place at the right time.
6. Students who you **like most** - your favorite classmates that you like to spend time with.
7. Someone who is **goal oriented** - always wants to complete what they have begun.
8. Someone who is **dependable** - you can rely on them or have confidence in them.
9. Someone who **will do what is necessary to** succeed - will do anything to get what they want.
10. Someone who is **ambitious** - desire to get ahead or achieve power, a strong drive or desire for something.
11. Someone who is **not easily frustrated** - doesn't get discouraged, keeps going no matter what happens.
12. Someone who is **honest** - trustworthy, fair, or truthful.
13. Someone who is **self-confident** - belief that they can deal or cope with whatever happens to them.
14. Someone who **communicates well** - someone you can understand easily.
15. Someone who is **flexible** - adjust easily to change or adaptable to different situations.
16. Someone who is **organized** - arranges or moves things around in a specific pattern.
17. Someone who **does everything themselves** - likes to do things by themselves rather than in a group.
18. Someone who is **insensitive to others** - cruel, doesn't care about other peoples feelings.
19. Someone who **has a lot of friends** - popular.
20. Someone who is **cooperative** - works well with others, easy to work with.
21. Students who you **like least** - the classmates that you would least like to spend time with.
22. Someone who **knows their own strengths and limitations** - they know what they can and cannot do.