

Development and Validation of a Measure of Relational Leadership: Implications for Leadership Theory and Policies

James Carifio

University of Massachusetts-Lowell, Bennie Eyemaro,
Bridgewater State College, Massachusetts, Lowell, USA

Abstract: Problem statement: This study reports the development and validation of the Relational Leadership Questionnaire (RLQ). The consensus attributes of relational leadership are that the relational leader is caring, empowering, ethical, inclusive and has vision. These characteristics also reflect the newest theory and view of leadership in the psychological literature as well. **Approach:** For each of these 5 attributes, 10 Likert items were written using a 7 point response scale. These 50 items were administered to 141 high school teachers. Five factors were found for the RLQ and the 5 items with the highest factors loadings for each attribute were retained for the confirmatory study. **Results:** A confirmatory study was done with 434 elementary, middle and high school teachers who also responded to the LMX leadership scale (the “known marker” scale) and Mayer’s trust scale. The hypothesized correlations with the LMX and trust scales were obtained as were the expected factor structures. The RLQ was in general validated, but gender, teaching level and teaching experience was found to significantly influence factor structures and scores on all three instruments. **Conclusion:** The meaning and implications of these findings are discussed as they are important to both research on and theories of leadership. These finding also have a number of key and important policy implications in the assessment and evaluation of educational leaders from school principals to university presidents and legislative committee members. These later implications are also discussed in detail and in terms of the different model of educational leadership and policy formulation they suggest.

Key words: Leadership, leadership measurement, leadership theory, relational leadership, individual differences and interactions

INTRODUCTION

Of the many theories of leadership developed, relational leadership (Komives *et al.*, 1998; Regan and Brooks, 1995) is one that focuses on the nature of the relationships that exist between the leader and those led; for example, principals and teachers. This view of leadership states that the leader-follower relationships have certain characteristics that will promote high trust and productivity (Deluga, 1994) and will improve organizational climate and the satisfaction of the stake holders associated with the organization (Regan and Brooks, 1995). These characteristics are the characteristics of the Relational Leader and these characteristics also reflect the newest theory and view of leadership in the psychological literature as well (Reicher *et al.*, 2007).

Since there is no objective measure of relational leadership available, this study sought to develop and validate a relational leadership scale (questionnaire) that measured the 5 consensus characteristics identified from the literature on relational leadership. The

consensus view of the characteristics (or attributes) of relational leadership are that the relational leader is caring, empowering, ethical, inclusive and has vision. A full review of the definitions of relational leadership, relational leadership theory and other leadership theories and the literature on this topic is given in Eyemaro (2001). The purpose of this article is to present the details of the Relational Leadership Questionnaire (RLQ) developed and the various data that were collected to validate this scale in the exploratory (pilot) and confirmatory (main) studies done.

MATERIALS AND METHODS

To assess the validity of the Relational Leadership Questionnaire (RLQ) and to test several associated hypotheses and predictions, a variation of Campbell and Fiske (1959) multi-method and multi-trait (convergent and discriminant validation) design was used, even though factor analysis was the principal method used to assess the construct validity of the RLQ and the other

scales used in this study. In this design, Liden and Maslyn (1998) Leader-Member Exchange (LMX) questionnaire is the “known marker scale” (i.e., the previously validated scale that is highly similar to the RLQ) and Mayer and Davis (1999) trust scale is the (profile type) “discriminating” variable. Background variables associated with teachers and principals were also used to form logical expectancies of positive, negative and zero-order correlations between the 3 scales and to see how each influenced factor structures and loading. A description of each instrument and its psychometric properties are given below.

Leader-Member Exchange Questionnaire (LMXQ):

The LMX-8 scale (Liden and Maslyn, 1998) is an update of the 7 item LMX scale published in 1984. The scale describes the nature of the interaction between a leader and a follower. This scale has been used for over twenty years to assess the nature and characteristics of leader-follower relationships. Liden and Maslyn (1998) found a positive correlation ($r = 0.72$) between the LMX and transformational leadership at the individual level and group level ($r = 0.58$). They also found a strong positive correlation with empowerment ($r = 0.65$), but a weaker relationship with mentoring ($r = 0.48$). Liden and Maslyn (1998) found alpha coefficients ranging from 0.75-0.84 for LMX-7scale and then Bauer and Green (1996) reported an alpha of 0.94 for the LMX-8. The test-retest reliability coefficients for the LMX-8 scale is $r = 0.80$. In both the pilot study we did and this study, we obtained Cronbach alpha coefficients of 0.91 and 0.95 respectively on the modified version of the LMX we used. This scale was modified to fit an educational setting by changing the term “supervisor” to “principal”. A similar type of modification, it should be noted, can be made to our scale to make it fit business, social or other types of research situations.

Although the LMX has been one of the “leading and best leadership measures” to date in the literature, it is only an 8 items scale that yields a single total (overall) score. As such, it produces truncated correlation coefficients that underestimate actual relationships and information that it not highly differentiated in terms of the several sub-constructs of leadership that are present in the many theories that are currently in the literature including the theory underlying the LMX. Little reliable refined analyses of the sub-constructs of leadership can be done using this scale because of these limitations. There is, therefore, a strong need for a scale such as the RLQ that measures leadership constructs and sub-constructs in a highly

differentiated fashion with adequately variability and particularly in an educational setting.

Relational Leadership Questionnaire (RLQ): Before undertaking the design and development of this questionnaire, an extensive review of the literature on leadership and school leadership was conducted to see if there was any other instrument that could be used to measure the attributes of leadership examined in this study (Eyemaro, 2001). Since there was no instrument that would specifically measure the attributes of relational leadership that were described by Komives *et al.* (1998); Regan and Brooks (1995), and others, the Relational Leadership Questionnaire (RLQ) had to be developed. Using the guidelines for designing questionnaire outlined by Mertens (1997), a closed format design was selected to construct the questions for the RLQ.

In their description of relational leadership, Komives *et al.* (1998) discussed leadership as a relational process encompassing 5 attributes, which were defined as inclusive, empowering, purposeful, process oriented and ethical. In a similar fashion, Regan and Brooks (1995) named and defined in details five attributes of relational leadership which were: collaboration, caring, courage, intuition and vision. Based on the definitions, examples and descriptions of Komives *et al.* (1998); Regan and Brooks (1995), we first had to logically “factor analyze” these 10 attributes into a more parsimonious, but theoretically coherent set of key attributes and qualities, if an instrument that teachers could respond to in a reasonable amount of time was to be developed.

Table 1 shows the 5 individual attributes of relational leadership presented by Komives *et al.* (1998) and the 5 presented by Regan and Brooks (1995) and the five overlapping, parsimonious and key attributes our analysis identified that we used to develop the RLQ, which is the focus of this study. As can be seen from Table 1, the 5 overlapping and key attributes that we found were inclusiveness, empowerment, caring, ethicality and vision. The following discussion illustrates how we arrived at these 5 common and key attributes.

Table 1: Attributes of relational leadership

Komives <i>et al.</i> (1998)	Regan and Brooks (1995)	Main study
Inclusive	Collaboration	Inclusive
Empowering	Caring	Empowering
Purposeful	Courage	Caring
Ethical	Intuition	Ethical
Process	Vision	Vision and intuition

Regan and Brooks described collaboration as “the ability to work in a group, eliciting and offering support to each other member, creating a synergetic environment for everyone”. On the other hand, Komives *et al.* (1998) described inclusive as “enhancing the learning of others, helping them to develop their own initiative, strengthening them in the use of their own judgment and enabling them to grow”. These 2 definitions were similar in meaning hence the selection of inclusive instead of using both.

Regan and Brooks’ description of collaboration can also be compared to empowering as described by Komives *et al.* (1998) which describes empowering as sharing information by bringing people into a group process and promoting individual as well as team learning. In essence, the attributes described by Regan and Brooks (1995) and Komives *et al.* (1998) overlapped in their meanings.

Purposeful, which was one of the attributes of relational leadership as described by Komives *et al.* (1998), is similar in meaning to vision as described by Regan and Brooks (1995). Komives *et al.* (1998) definition of process was similar to Regan and Brook’s definition of caring, but Regan and Brook’s concept was more inclusive and direct and therefore, used. The reverse of this point was true for courage (Regan and Brook, 1995) and ethicality (Komives *et al.*, 1998) so ethical was chosen. Intuition was not included as an attribute in this study because we believe, as does Noddings (2003), that intuition is an inner concept of mind that would be too difficult for teachers to judge reliability or validity about principals or even other teachers.

Ten questions were drafted for each attribute finally chosen using the definitions and examples given by Regan and Brooks (1995); Komives *et al.* (1998) for each attribute. A seven point response scale was used for all items (on all instruments) with 7 being strongly agree and 1 being strongly disagree to keep the response format consistent and logical between the three instruments. The questions were organized in a logical sequence (i.e., related items grouped together) for clarity.

To assess the degree to which subjects were reading and responding to items carefully and validly, 5 additional social desirability items (Carifio, 1994) were inserted into the scale that required subjects to respond to them in the opposite direction of their typical responses to the 25 items in the scale. These 5 items constituted the “Response Validity Cross-Check (RVCC)” or “lie” subscale that allowed the assessment of the quality and validity of each subject’s responses. These items were not counted in developing total or

subscale scores for this instrument. Extremely high scores on the “lie” subscale indicated questionnaire responses whose validity was so highly dubious that they should be eliminated from analyses. There were no questionnaires in the pilot or main study that needed to be eliminated based on their “lie scale” score.

A panel of 8 high school teachers who were given definitions and descriptions of the attributes that comprised the RLQ scale was used to evaluate whether the questions reflected the attributes that were hypothesized to measure. The panel had a teacher from each of the departments in the high school in the urban school system in Massachusetts where the instrument was piloted. The teacher panel met with us to clarify any questions that they had regarding the construct of relational leadership prior to classifying each of the 50 items by subscale categories. The panel initially classified 80% of the items (40 of 50) correctly. Wherever disagreements were found the item was reworked until consensus was reached.

This preliminary version of the RLQ (with the “lie scale” items included) was pilot tested in three schools (elementary, middle and secondary) in this urban school system in Massachusetts (N = 141) to assess the reliability and preliminary validity of the scale and the clarity of the instructions before its use in the main study. The RLQ had to be administered anonymously with no background information collected on teachers or principals in this pilot study, as only 3 (volunteer) principals were assessed and the school system was experiencing the tensions of undergoing educational reform. Additionally, given the length of this version of the RLQ, there was not enough time to collect information on the LMX or the Trust scale. Although there were also other confounding factors in this pilot study, a little over 90% of the teachers returned the questionnaire. The Cronbach alpha coefficients at all grade levels on all subscales of the RLQ exceeded 0.90 and the exploratory factor analyses done (principal axis factoring with communities in the diagonals and varimax rotations as the most conservative of approaches) found 5 tentative factors that accounted for 84% of the variance and roughly corresponded to the 5 attributes hypothesized. This factor analysis, however, raised several questions that could only be answered or clarified through further study. The 5 items that had the highest factor loading on each factor, therefore, were retained for the final scale with one of the 5 “lie scale” items being added after each 5 items for a factor to create the final 30 item scale for use in the main confirmatory study.

Trust scale: The 29 item Trust Scale that was used in this study was one developed. Drawing from extensive

literature on trust from various disciplines, Mayer *et al.* (1995) developed a process model depicting the elements of trust and its associated constructs such as propensity to trust, ability, benevolence, integrity and interpersonal trust (Martin, 1999). This measure of trust was also recently used in a study that examined the impact of LMX on interpersonal trust (Martin, 1999). However, the researcher examined both the leader and member's perception of trust and did not identify whether the relational level of leadership had any impact on the level of trust observed which is predicted by the theory. This measure of trust has been empirically tested and it satisfactorily measures the construct Cronbach alpha coefficients ranged from 0.71 (propensity to trust) to 0.96 (integrity) with the overall alpha for the scale being 0.88. We found similar alpha is in the main study. Strong correlations ($r = 0.65-0.75$) have been found between LMX and interpersonal trust (Martin, 1999). Limited modification was done to the Trust Scale so as to make it appropriate for the sample being studied in this research. The term supervisor was changed to principals since in some educational organizations, there are chains of command and the term supervisor may appear confusing to the respondent.

Main study sample: In the main study, teachers were administered the LMX first, then the RLQ, then the Trust scale and then the biographical background questionnaire. Teachers responded to these instruments using the codename technique (Carifio and Biron, 1982) so that their responses would be anonymous, but all questionnaires for a given subject could be linked together for analyses. These RLQ instrument is given in Table 13 with items coded by their characteristic.

The sample in the main study was drawn from a fully accredited "recognized" suburban school district in the southwestern region of the United States. "Recognized" is one of the categories of the accountability standards issued by the State Board of Education in Texas and means that the school district is meeting mandated education standards based on their performance on the Texas Assessment of Academic Skills (TAAS) test. This school district had 19 elementary schools, 6 intermediate schools and 3 high schools. There were over two thousand teachers in the district. About 74% were females and 26% were males. The ethnic breakdown of the teachers was also as follows: 92% White, 4% Black, 3% Hispanic, less than 1% for American Indian and Asian. In addition, there were over thirty three thousand students in the school district reflecting a student ethnic background of 61%

White, 13% Black, 19% Hispanic, less than 1% American Indian and 7% Asian. Only 23 of the 28 schools that had a minimum of thirty-five teachers (which was needed to produce an adequate sample of responses per principal) and a principal that has been in her or his position for more than one school year (was not in the honeymoon year) were included in the study. The study had district office approval which was communicated to school principals.

In the preliminary request for volunteer schools, 18 schools responded indicating their willingness to participate in this study, while 5 schools (3 elementary and 1 middle) said that they would not participate. Only 14 of the 18 schools returned the questionnaires that were then distributed to them. In telephone conversations with the principals of the 4 schools that did not return their questionnaires, we were told that teachers were engaged in several school activities and would not have the time to respond to the surveys. The 4 schools that did not distribute their questionnaires were all elementary schools. We were not able to assess quantitatively several different possible biases that may have arisen due to the self-selection of this final sample other than the empirical results found in this study. This fact is a limitation of this study.

Response rates from 4 of the 14 returning schools were less than 15% (2 middle, 1 high, 1 elementary) while one of the schools did not distribute the questionnaires to the teachers at all. Attempts were made to increase the response rates through follow-up calls and letters. However, these attempts did not result in any change in response rates. In follow-up phone call conversations with the principals whose response rates were low, reasons such as school activities, TAAS preparation, professional development workshops and other school related events were given for the low response rates. These difficulties left 9 schools that had acceptable response rates to be included in analyses. Each of these subsamples, however, had various imbalances and anomalies that had to be considered to be "intervening variables" that needed to be considered in all analyses and the interpretation of all results.

Table 2 presents the teacher response rates for the nine schools that constituted the main study by gender and education level along with the associated values for the entire teacher population of the nine schools. As can be seen from Table 2, a total of 446 teachers responded to the surveys but after a quality assurance check was done only 434 questionnaires were properly completed. Of the 434, 170 were from elementary, 94 were from middle and 170 were from the high schools. The elementary schools had the highest response rate (from a low of 67% to a high of 91%).

Table 2: Teacher response rates in the main study by gender and degree level for the sample and population

School level	Females		Males		Bachelor		Graduate		N		Response rate (%)
	Pop.	Sample	Pop.	Sample	Pop.	Sample	Pop.	Sample	Pop.	Sample	
Elementary 1	40	(29)	4	(1)	34	(20)	10	(10)	44	(30)	68
Elementary 2	30	(28)	4	(3)	24	(22)	10	(9)	34	(31)	91
Elementary 3	42	(32)	3	(1)	31	(23)	14	(10)	45	(33)	73
Elementary 4	55	(36)	2	(2)	47	(25)	10	(13)	57	(38)	67
Elementary 5	48	(40)	2	(1)	45	(33)	8	(8)	50	(41)	82
Intermediate 1	62	(41)	13	(8)	65	(41)	10	(8)	75	(49)	65
Intermediate 2	56	(41)	15	(4)	41	(41)	31	(4)	71	(45)	63
High 1	79	(55)	71	(24)	87	(41)	63	(38)	150	(79)	53
High 2	107	(76)	68	(24)	114	(68)	61	(32)	175	(100)	57
Total	519	(378)	182	(68)	488	(314)	213	(132)	701	(446)	64

Table 3: Background information on teachers by school levels (N = 434)

Demographic variables	School levels			Total
	Elementary	Middle	High school	
Females	121	82	162	365
Males	8	12	48	69
Level of education:				
Bachelors only	98	59	127	284
Graduate Degree	43	35	721	50
Years with principal:				
Less than 3 years	80	19	831	82
4-8 years	68	44	561	68
More than 8 years	22	31	31	84
Teaching experience:				
Less than 6 years	44	14	39	97
6-10 years	30	13	36	79
11-18	44	21	36	101
More than 18 years	52	46	59	157
Total	170	94	170	434

In the middle and high schools, more than half of the teachers returned their questionnaires. It is important to note that the middle and high schools are larger in size in terms of teachers and student population compared to the elementary so this may account for the lower response rates. Also, it should be noted that middle school teachers are “under represented” in the sample and the population. Another important point is the high percentage of the sample that is female (85%) and the low percentage that is male (15%). There were not many male teachers in this school system overall (26% of the overall population and 37% of the sample population), but the gender percentages for the respondent sample were significantly different than the populations values at the 0.05 ($\chi^2 = 5.1$, $df = 1$) and 0.01 ($\chi^2 = 7.08$, $df = 1$) level. Female respondents, therefore, were over represented in the sample.

Table 3 presents basic background data on teachers in the sample by school levels, teaching experience, years with the principal and educational level. As can be seen from Table 3, the number of teachers in the high and elementary schools were equal (170) while

Table 4: Inter-correlations between the LMX, RLQ and trust total scale scores

Instruments	LMX	RLQ	Trust scale
LMX	[0.95] ¹	0.88**	0.85**
RLQ		[0.98]	0.90**
Trust scale			[0.93]

Note: LMX = Leader-Member-Exchange, RLQ = Relational Leadership Questionnaire. **: $p < 0.01$. ¹: Cronbach’s alpha coefficient in diagonals

the middle school had 94 teachers represented in the total sample. The high school had more males ($\chi^2 = 35.5$, $df = 2$, $p < 0.001$) than the middle and elementary schools. In the total sample of 434 teachers, 65% of the teachers had only a bachelor’s degree and 35% had graduate degree. What may also be observed in Table 3 is the fact that high school teachers have significantly a higher level of education ($\chi^2 = 11.31$, $df = 2$, $p < 0.003$) than middle and elementary teachers and they have more years with the principal ($\chi^2 = 29.4$, $df = 4$, $p < 0.001$) than middle and elementary teachers. The teaching experience by school level showed that the teachers at the high school have marginally significantly more years of teaching ($\chi^2 = 11.8$, $df = 6$, $p < 0.06$) than the elementary and middle schools levels. Given the data presented in Table 3, the demographic profiles of high school, middle school and elementary school teachers are not the same and these three groups are not ‘equal units’ or “directly comparable,” particularly as response levels on each of the three instruments used in this study were significantly correlated with these teacher background factors.

RESULTS AND DISCUSSION

Table 4 shows the inter-correlations (convergent/discriminant validation results) between the total scale scores for the LMX, RLQ and trust scales with the alpha reliability coefficients in the diagonals. As can be seen from Table 4, the 8 item LMX scale, which was the benchmark measure, correlated with the RLQ scale at $r = 0.88$ and with Trust scale at $r = 0.85$.

Table 5: Inter-correlations between LMX and 5 subscales of RLQ and 5 subscales of the trust scale (N = 434)

Variable	1	2	3	4	5	6	7	8	9	10	11
LMX	[0.95]	0.79**	0.83**	0.82**	0.87**	0.79**	0.80**	0.82**	0.80**	0.71**	0.16**
Inc.		[0.84]	0.83**	0.82**	0.87**	0.76**	0.71**	0.76**	0.73**	0.67**	0.16**
Emp.			[0.91]	0.84**	0.87**	0.83**	0.74**	0.79**	0.78**	0.69**	0.15**
Eth.				[0.91]	0.87**	0.84**	0.76**	0.84**	0.84**	0.72**	0.15**
Car.					[0.88]	0.87**	0.79**	0.84**	0.83**	0.72**	0.15**
Vision						[0.92]	0.74**	0.81**	0.86**	0.71**	0.18**
Ben.							[0.80]	0.75**	0.76**	0.66**	0.15**
Integ.								[0.91]	0.86**	0.75**	0.15**
Ability									[0.96]	0.75**	0.18**
Intps.										[0.75]	0.18**
Prop. to trust											[0.68]

Note: Inc: Inclusive, Emp: Empowering, Eth: Ethical, Car: Caring, Ben: Benevolence, Integ: Integrity, Intps: Interpersonal Trust, Prop to trust: Propensity to Trust, **: p<0.01

The RLQ correlated with Trust Scale at $r = 0.90$. As the correlation between the LMX and RLQ is so strong and the LMX has been validated as a measure of aspects of relational leadership, this convergent result validates the RLQ. As total RLQ scores strongly correlated with total trust scores as hypothesized by theory ($r = 0.90$), this discriminant result additionally validates the RLQ. The correlation between the LMX and Trust Scale of $r = 0.85$ is also a new finding and further validates the LMX scale. It should also be noted that all three of these correlations are extremely high.

Two unobtrusive measures were also used to validate the RLQ. The first was the number of teachers for principals rated as high ($N = 236$) or low relational leaders ($N = 198$), using RLQ scores as the criterion, who participated in school-wide activities and the second was the number of teachers for these same two categories of principals who participated in voluntary initiatives (Eyemaro, 2001).

Fifty five percent of teachers in schools where the principals were classified as high relational leaders participated in school-wide initiatives such as improving test scores, school based management initiatives and restructuring, whereas only 16% participated in school-wide initiatives in schools where principals were classified as being low relational leaders ($z = 6.31, p < 0.001$).

In addition, 75% of the teachers participated in non-school/non-contract-mandated (voluntary) activities (such as dances, sports both in and out of the city and other student sponsored events that take place outside contract hours in schools) where the principals were classified as high relational leaders, whereas only 17% of the teachers participated in such voluntary initiatives in schools where the principals were rated as low relational leaders ($z = 8.63, p < 0.001$). These differences in participation rates were predicted by Komives *et al.* (1998); Regan and Brooks (1995) which makes these data and these findings strong external and

predictive validity evidence for the RQL as well as its underlying theory.

Table 5 shows the inter-correlations of LMX and the subscales of the RLQ and the subscales of the Trust Scale. As can be seen from Table 5, all of the subscales highly inter-correlated with each other and the LMX with the exception of the propensity to trust subscale of the Trust Scale which has an extremely low (but significant) correlation with all other measures. The correlations between LMX and trust variables are consistent with Martin (1999) in which the "Impact of Trust on LMX Relationships" was examined in a small community hospital ($N = 448$). The findings here cross-validate the finding of the Martin (1999) study.

It should be noted that both Komives *et al.* (1998); Regan and Brooks (1995) hypothesized strong correlations between the attributes they identified as defining relational leadership and this strong correlation between attributes is what we found, as can be seen in Table 5. This view and the results found, however, have a number of different and important implications relative to factor analyzing these scales to assess their construct validity and this point needs to be kept in mind.

To assess the degree to which subject background factors were related to the subscale of Relational Leadership and Trust and the LMX, a correlation matrix was generated (Eyemaro, 2001) or this matrix). Significant correlations (from 0.10-0.13) at the 0.01 level were found between subject background factors (school level, gender, years on the job and number of years teaching) and some of the subscales of both the trust and relational leadership scales as well as the LMX. Significant correlations were found between school level and the subscales of ethicality and vision on the RLQ and ability and integrity on the trust scale and between gender and ethicality and vision (RLQ) and benevolence, integrity and propensity to trust on the trust scale. The result of the correlation between

total LMX and years at the job and years teaching is consistent with the findings of Martin (1999), which found that there was a relationship between time on a job (tenure) and the quality of the relationship between a leader and a follower. Scores on all three of these instruments (i.e., judgments about leadership and trust attributes), therefore, are significantly influenced by these background factors, which give rise to critically important questions about the objectivity, comparability and meaningfulness of ratings and mean levels for principals on these scales. These points and issues about all three of these scales will be addressed throughout the remaining presentation of the factor analytical results.

Table 6: Principal axis factor analysis with varimax rotation of the five trust subscales

Subscale*	Factor I	h ²
Benevolence	0.88	0.77
Integrity	0.93	0.86
Ability	0.93	0.86
Interpersonal trust	0.84	0.72
Propensity to trust	0.28	0.08
	Common variance	66%

Note: *: The full content of items in each scale is included in Table 13

Table 7: Principal axis factor analysis with varimax rotation of the trust scale items (N = 434)

Items*	Factors		h ²
	I Benevolence	II Propensity to trust	
b1	0.84	0.04	0.71
b2	0.43	0.01	0.18
b3	0.80	0.05	0.65
b4	0.89	0.04	0.79
b5	0.90	0.08	0.80
int6	0.87	0.03	0.76
int7	0.83	0.09	0.70
int8	0.82	0.03	0.67
int9	0.80	0.02	0.64
int11	0.89	0.05	0.80
ab12	0.90	0.09	0.81
ab13	0.86	0.06	0.76
ab14	0.92	0.06	0.74
ab15	0.88	0.08	0.84
ab16	0.87	0.02	0.77
ab17	0.80	0.02	0.64
intt19	0.61	0.16	0.40
intt21	0.74	0.25	0.61
prt23	0.01	0.57	0.32
prt24	0.06	0.71	0.51
prt26	0.16	0.74	0.57
prt27	0.06	0.72	0.51
prt28	0.02	0.70	0.47
prt29	0.03	0.67	0.45
Common variance (%)	52.00	12.00	64.00

Note: *: The full content of each item is given in Mayer and Davis (1999); Eyemaro (2001)

Trust scale: To investigate the construct validity of the Trust scale, principal axis factoring with communities in the diagonals using varimax rotation with Kaiser normalization and an eigen-value cutoff of 1.0 (which was the approximate Skree value) was conducted to analyze the subscale scores in the of trust instrument as this is the most conservative factor analytical approach (Costello and Osborne, 2005; Henson and Robert, 2001). Table 6 shows the factor analysis results for the attributes of trust for the principals in the main study (N = 434). As can be seen from the Table 6, one factor accounted for 66% of the variance. All subscales except for propensity to trust loaded highly on this factor. Propensity to trust is a subscale that is fairly independent and uncorrelated to the other four and ratings on this scale cannot be predicted using the ratings on the other four subscales. It would form a second factor if an Eigen-value of less than one were used in the factor analysis. The results of this factor analysis, however, support the construct validity of the trust scale developed by Mayer *et al.* (1995), but shows that four of the attributes are so highly correlated to each other as to be one factor. It also shows that although teachers might have a low propensity to trust a principal, they still can rate the principal highly on the four essential attributes of trust (and vice-versa), which suggests that there may be some intervening variables and other factors affecting teacher's propensity to trust a principal.

All items on the trust scale were factor analyzed. For this factor analysis, a Principal Axis Factor Analysis with communities in the diagonals with Varimax rotation with Kaiser Normalization and an Eigen value cutoff of 1.0 was used. Table 7 shows the results of the factor analysis of all items on the trust scale. As can be seen from Table 7, 2 factors accounted for 64% of the variance with 52 and 12 % attributed to factors II and I respectively. All items on the trust scale except items specifically related to the subscale of propensity to trust loaded highly on the first factor. In a similar fashion, the items on the other subscales did not load on the second factor (propensity to trust). The four attributes of trust identified by Mayer *et al.* (1995) do not correlate with (or predict) the propensity to trust (the fifth attribute). To the best of our knowledge, a factor analysis of Mayer *et al.* (1995) trust scale at the item level has not been reported and that is why it is being reported here.

LMX scale: Table 8 presents the factor analysis results for the Leader Member Exchange Questionnaire (LMXQ). A principal axis factor analysis using communalities in the diagonals and varimax rotation

and an Eigen value cutoff of 1.0 was used. As can be seen from Table 8, one factor was found that accounted for 75% of the variance for the 8 items on the LMXQ. All items highly loaded on this factor with the lowest factor loading being 0.79 and the highest loading being 0.94. The LMX-8 scale used in this study showed a single factor structure that is consistent with the results in other Studies that showed the LMX to have a single factor structure (Graen and Uhl-Bien, 1995). The result of this factor analysis, therefore, strongly supported the construct validity of the items comprising the LMX scale and shows that the known marker scale in this study is yielding the same results and behaving as it has in other studies.

RLQ scale: To evaluate the validity of the Relational Leadership Questionnaire (RLQ), several factor analyses were done. A principal axis factor analysis with communalities in the diagonals and varimax rotation with Kaiser normalization and an eigen value cutoff of 1.00 was conducted to analyze the subscale scores of the pilot and main studies. Table 9 shows the factor analyses of the subscales in the pilot study. As can be seen from Table 9, one factor was found that accounted for 84% of the variance on the subscales scores for the pilot study. All subscales loaded on this factor with the lowest loading being 0.86 and the highest being 0.94.

Table 10 shows the factor analysis for the scores on the subscales in the main study. As can be seen from the Table 9, one factor accounted for 87% of the variance in the subscale scores of the main study. All subscales loaded on this factor being 0.91 and the highest factor loading being 0.95.

Table 8: Principal axis factor analysis with varimax rotation for the LMX Items (N = 434)

Items*	Factor I	h ²
1	0.84	0.71
2	0.88	0.77
3	0.90	0.81
4	0.85	0.72
5	0.94	0.88
6	0.84	0.71
7	0.79	0.62
8	0.88	0.77
	Common variance	75%

Note: *: The full content of each item is given in Martin (1999); Eyemaro (2001)

Table 9: Principal axis factor analysis of the RLQ subscales in the pilot study (N = 141)

Subscales	Factor	h ²
Inclusive	0.86	0.74
Empowering	0.94	0.88
Caring	0.93	0.87
Ethical	0.94	0.89
Vision and intuition	0.92	0.84
	Common variance	84%

When comparing Table 9 and 10, the underlying construct and factor structure in both studies are the same and each factor structure cross-validates the other. The increase in common variance in the main study is most probably due to increase in sample size and the difference in geographical location of the samples with the pilot study sample being in the Northeast and the main study sample being in the Southwest. In comparing the subscales, therefore, the consistency of values between the pilot and main study strongly supported the construct validity of the subscales comprising the RLQ.

The items for each subscale were also factor analyzed (principal axis factor analysis with communalities in the diagonals and varimax rotation with Kaiser Normalization and an Eigen value cutoff of 1.0). In these analyses, the items for each of the five subscales reduced to one factor which accounted for 67-87% of the variance (Eyemaro, 2001) for these factor structures).

Table 10: Principal axis factor analysis of the RLQ subscales in the main study (N = 434)

Subscales	Factor	h ²
Inclusive	0.91	0.82
Empowering	0.94	0.88
Caring	0.95	0.91
Ethical	0.94	0.88
Vision and intuition	0.92	0.86
	Common variance	86%

Table 11: Principal components factor analysis of the RLQ items in pilot study (N = 141)

Factors	I	II	III	IV	V	h ²
Items*	Caring	Empowering	Ethical	Vision	Inclusive	
Inc1	0.14	0.76	0.17	0.27	0.32	0.8
Inc2	0.32	0.41	0.24	0.04	0.74	0.88
Inc3	0.37	0.64	0.48	-0.08	0.04	0.78
Inc4	0.40	0.62	0.43	-0.07	0.25	0.81
Inc5	0.21	0.82	-0.01	0.11	0.15	0.75
Emp1	0.45	0.74	0.19	0.12	0.20	0.84
Emp2	0.45	0.72	0.07	0.22	0.10	0.79
Emp3	0.39	0.63	0.28	0.19	-0.05	0.67
Emp4	0.63	0.53	0.36	0.17	-0.12	0.86
Emp5	0.68	0.45	0.36	0.14	-0.12	0.82
Car1	0.80	0.24	-0.04	0.11	0.33	0.83
Car2	0.81	0.34	0.16	-0.01	0.01	0.80
Car3	0.84	0.37	0.13	0.13	0.01	0.88
Car4	0.76	0.47	0.14	0.27	0.01	0.90
Car5	0.76	0.35	0.16	0.22	0.22	0.84
Eth1	0.76	0.40	0.20	0.20	0.15	0.84
Eth2	0.23	0.16	0.82	0.21	0.20	0.84
Eth3	0.67	0.25	0.48	0.24	0.02	0.80
Eth4	0.72	0.28	0.28	0.10	0.10	0.71
Eth5	0.61	0.29	0.42	0.38	0.15	0.80
Vis1	0.73	0.22	0.19	0.38	0.18	0.81
Vis2	0.77	0.17	0.23	0.30	0.26	0.83
Vis3	0.75	0.21	0.17	0.31	0.28	0.80
Vis4	0.61	0.30	0.26	0.32	0.24	0.70
Vis5	0.28	0.22	0.17	0.81	0.001	0.82
Common	64.00	6.00	4.00	3.00	3.000	80.00
Variance (%)						

Note: *: The full content of each item in Table 11 is included in Table 13

Table 11 shows the principal axis factor analysis results with communalities in the diagonals and varimax rotation for all 25 items on the RLQ for the pilot study. The Eigen value cutoff was 0.70 as the Skree test suggested that this was the most appropriate value to use. As can be seen from Table 11, 5 factors were found which accounted for 80% of the variance with 64, 6, 4, 3 and 3% attributed to then 5 factors respectively. These factors were named Caring (I), Empowering (II), Ethical (III), Vision (IV) and Inclusion (V), which are the 5 subscales that were hypothesized. The majority of the 25 items, however, loaded on factors I (Caring) and II (Empowering). Factor III (Ethical) was comprised of 5 dominant items and factors IV (Vision) and V (Inclusion) loaded on one dominant item each. The factors, therefore, are strongly correlated and the underlying structure is oblique.

The factor analysis at the item level in the pilot study indicated that there was essentially one major underlying factor for relational leadership, which account for a large amount of variance (64%) and 4 relatively minor factors accounting for 3 to 6% of the variance. Three of the 4 minor factors are defined by one item and would disappear if the three items were eliminated from the scale. The last minor factor (“empowering”) is actually correlated to the first strong factor as an oblique analysis showed, which further supports the finding of primarily one general underlying factor, particularly as an Eigen value cutoff of less than 1 was used to obtain the structure.

Table 12: Principal components factor analysis with varimax rotation of main study RLQ items (N = 434)

Factors	I	II	III	IV	V	
Items*	Caring	Empowering	Vision	Inclusive	Ethical	h ²
Inc1	0.54	0.34	0.02	0.33	0.12	0.53
Inc2	0.23	0.16	0.17	0.84	0.07	0.82
Inc3	0.71	0.32	-0.01	0.33	0.30	0.81
Inc4	0.72	0.28	0.05	0.32	0.26	0.77
Inc5	0.28	0.34	0.35	0.51	0.13	0.60
Emp1	0.46	0.64	0.19	0.24	0.21	0.76
Emp2	0.48	0.73	0.12	0.20	0.13	0.83
Emp3	0.31	0.79	0.22	0.20	0.09	0.83
Emp4	0.70	0.39	0.22	0.18	0.09	0.73
Emp5	0.79	0.25	0.19	0.13	0.12	0.77
Car1	0.61	0.15	0.41	0.32	0.06	0.67
Car2	0.74	0.27	0.32	0.19	0.16	0.78
Car3	0.78	0.32	0.31	0.20	0.13	0.86
Car4	0.72	0.41	0.36	0.15	0.11	0.85
Car5	0.74	39.00	0.32	0.14	0.09	0.84
Eth1	0.67	0.29	0.28	0.17	0.14	0.66
Eth2	0.20	0.12	0.19	0.11	0.90	0.92
Eth3	0.58	0.35	0.22	0.09	0.47	0.74
Eth4	0.66	0.39	0.21	0.29	0.17	0.74
Eth5	0.57	0.53	0.28	0.29	0.15	0.80
Vis1	0.53	0.54	0.45	0.13	0.14	0.81
Vis2	0.66	0.42	0.47	0.07	0.15	0.86
Vis3	0.59	0.49	0.47	0.13	0.08	0.84
Vis4	0.52	0.37	0.51	0.10	0.22	0.73
Vis5	0.18	0.13	0.79	0.21	0.17	0.75
Common	64.00	4.00	3.00	3.00	3.00	77.00
Variance (%)						

The content for each item is given in Table 13

Table 12 shows the principal axis factor analysis with communalities in the diagonals and varimax rotation results for all 25 items on the RLQ in the main study. The Eigen-cut off value was 0.70 as the Skree test indicated that this was the most appropriate value to use. As can be seen from Table 12, 5 factors accounted for 77% of the variance with 64, 4, 3, 3 and 3% attributed to each of the 5 factors respectively. These factors again were named Caring (I), Empowering (II), Vision (III), Inclusion (IV) and Ethical (V). Again, as in the pilot study, the majority of the 25 items loaded on two factors (Caring and Empowering). Factor III (Vision) comprised of 7 items and factors IV (Inclusion) and V (Ethical) loaded on two dominant items respectively.

A comparison of the results of the factor analyses conducted for the RLQ in the pilot and the main study showed that most of the items in the RLQ loaded highly on the same first two factors (Caring and Empowering). While Caring accounted for the same percentage of variance in both studies, Empowering accounted for 6% in the pilot compared to 4% in the main study. However, the last three factors (III, IV and V) showed a different trend. For example in the pilot study, high loadings occurred in Ethical compared to Vision in the main study. While factors IV and V were comprised of one dominant item each in the pilot study, 2 dominant items comprised these last two factors in the main study. The size, geographical location and differences in subject characteristics of these 2 samples had an effect on the items loading on the five factors identified in the analyses conducted as other analyses indicated (see below). However, the results of the pilot study and the main study are essentially the same as the first 2 factors found in the main study were also “oblique” and moderately correlated. For all practical purposes, the RLQ was comprised of one underlying factor in the main study.

Intervening variables and individual differences: As stated above, scores on all three of the instruments used in this study (i.e., judgments and ratings about leadership and trust attributes) were significantly influenced by several background factors, which gave rise to important questions about the objectivity, comparability and meaningfulness of ratings and mean levels for principals on these scales. The items for the RLQ in the main study, therefore, were also factor analyzed separately by gender, school level and teaching experience. For all of these analyses, a principal axis factor analysis with communalities in the diagonals and varimax rotation with Kaiser Normalization and eigen value cut off of 1.0 were used.

Table 13: Relational leadership scale with items coded by the characteristics measured. The response categories are numbered 1-7 with each number defined beneath the scale

Item	7	6	5	4	3	2	1	Classification
Creates opportunity for professional and personal growth for teachers and others.	7	6	5	4	3	2	1	Inclusive-1
Rarely allows teacher participation in workshops.	7	6	5	4	3	2	1	Lie-Scale-1
Encourages risk taking amongst staff	7	6	5	4	3	2	1	Inclusive-2
Engages in well-mannered, polite, civil discourse that respects differences and values equity and involvement.	7	6	5	4	3	2	1	Inclusive-3
Readily maintains attitudes that respect differences and values equity and involvement.	7	6	5	4	3	2	1	Inclusive-4
Not open to ideas or difference of opinion.	7	6	5	4	3	2	1	Lie-Scale-2
Recognizes and engages all internal and external stake-holders in building coalitions	7	6	5	4	3	2	1	Inclusive-5
Builds professional capabilities of others and promotes self-leadership.	7	6	5	4	3	2	1	Empower-1
Encourages others by sharing information bringing people into group process and promoting individual and group learning.	7	6	5	4	3	2	1	Empower-2
Shares important tasks with others.	7	6	5	4	3	2	1	Empower-3
Acknowledges the abilities and skills of others.	7	6	5	4	3	2	1	Empower-4
Shows appreciation for the contribution of others.	7	6	5	4	3	2	1	Empower-5
Does not create opportunities for information sharing.	7	6	5	4	3	2	1	Lie-Scale-3
Steps out of his/her personal frame of reference into that of others.	7	6	5	4	3	2	1	Caring-1
Shows sensitivity for the needs and feelings of other teachers and administrators.	7	6	5	4	3	2	1	Caring-2
Establishes relationships built on values, caring and support.	7	6	5	4	3	2	1	Caring-3
Promotes individual development and responds to the needs of others.	7	6	5	4	3	2	1	Caring-4
Nurtures growth and remains connected to staff, students and others through interpersonal relationships.	7	6	5	4	3	2	1	Caring-5
Influences others by mutual liking and respect.	7	6	5	4	3	2	1	Ethics-1
Does not care about my personal development.	7	6	5	4	3	2	1	Lie-Scale-4
Conforms to the established standards of administrative practice.	7	6	5	4	3	2	1	Ethics-2
Actively practices in "leading with integrity".	7	6	5	4	3	2	1	Ethics-3
Considers opposing viewpoints and the values and the values of others in decision making.	7	6	5	4	3	2	1	Ethics-4
Encourages a shared process of leadership through the creation of opportunity and responsibility for others.	7	6	5	4	3	2	1	Ethics-5
Provides inspiring and strategic goals	7	6	5	4	3	2	1	Vision-1
Inspirational, able to motivate by articulating effectively the Importance of what teachers are doing.	7	6	5	4	3	2	1	Vision-2
Has vision; often brings ideas about possibilities for the future.	7	6	5	4	3	2	1	Vision-3
Articulates natural mental ability that is associated with experience.	7	6	5	4	3	2	1	Vision-4
Does not believe in trying new ideas?	7	6	5	4	3	2	1	Lie-scale-5
Often exhibit unique behavior that symbolizes deeply held beliefs	7	6	5	4	3	2	1	Vision-5

Instructions: Indicate the extent to which each of following items is characteristic of the current principal at your school by circling the appropriate category next to the item; 1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree nor disagree; 5 = Somewhat agree; 6 = Agree 7 = Strongly agree

When the female (N = 365) responses to the RLQ were factor analyzed separately at the items level, one underlying factor (Caring) was found that accounted for 64% of the variance with 17 of the 25 items loading above 0.80 on this one factor (Eyemaro, 2001) for all of these factor structures). Three underlying factors were found for male teachers (N = 69) which account for 75% of the variance, which showed that the male teachers differentiated between the characteristics of relational leadership more than the females. These factors were named empowering (66%), vision (5%) and ethicality (4%). The result, of course, may be due in part to the small sample size for men.

At the high school level (N = 170), 2 factors (Empowerment and Ethicality) were found which accounted for 72% of the variance, with 68 and 4% attributed to factors respectively. Three factors (Vision,

Empowerment and Inclusiveness) were found for middle school teachers (N = 94) that accounted for 68% of the variance with 58, 5 and 5% attributed to the factors respectively. All items at the elementary level (N = 170) loaded on one factor (Caring) with 68% accounting for the common variance. As 96% of elementary school teachers were female, this result was not surprising.

One factor (Ethicality/Vision) was found for highly experienced (N = 176) teachers (more than 18 years of teaching experience) that accounted for 69% of the variance when two items with no variance were eliminated. Two correlated factors were found for inexperienced teachers (N = 276) that accounted for 66% of the variance. The first of these two factors was "Inclusion-Caring-Empowerment" which accounted for 61% of the variance and the second was "Ethicality-Vision", which accounted for 5% of the variance.

As the above analyses and the correlational analyses presented earlier showed, gender, school level and teaching experience are intervening variables that influence how teachers rate the relational leadership level of their principal using the RLQ. Female elementary teachers see relational leadership as primarily being only the caring attribute, whereas males as well as the middle school teachers tend to see relational leadership as the empowering, vision and ethical or inclusive attributes. High school teachers see relational leadership as being the empowering and ethical attributes. Highly experienced teachers see the attributes of relational leadership as being highly correlated, whereas inexperienced teachers see the attributes as forming two related subgroups of characteristics. It is relatively clear from these findings, therefore, that relational leadership does not mean the same thing or have the same qualitative meaning for these different groups and scores obtained from different groups using the scale and are not directly comparable because they are influenced by various background factors. For example, an elementary school principal who was high on caring only being rated by female teachers primarily would obtain a higher relational leadership rating than a high school principal who was a high on caring rated by primarily male teachers. The elementary school principal is not necessarily more of a relational leader than the high school principal because the difference is due to the influence of the intervening background variables on the ratings and their mean levels. If, on the other hand, one says that the degree to which a principal is a relational leader is in part contextually defined and being a relational leader in an elementary school context is different than in a middle or high school context, then this view would mean that the different contexts could not be easily compared directly or without also knowing the composition and characteristics of the sample doing the ratings.

This same point holds for a principal being rated by highly experienced or inexperienced teachers where a significant difference was found at the 0.01 level with highly experienced teachers rating their principals higher on relational leadership than the inexperienced teachers who rated the same principal. Similar significant differences were found on LMX, Trust and RLQ scores by gender and school level as well as when gender, school level and teaching experience were used as blocking variables (Emeyro, 2001). The finding that there are intervening variables that affect the assessment, ratings, or classifications of leadership styles (and other variables) have broad and highly important implications beyond the present study

relative to both the theoretical and empirical literature in the field of leadership.

Whether one is a school principal, university president, or legislative committee member, how one is described, characterized, assessed and evaluated as an educational leader is at least as much (if not more) of a function of the characteristics of the constituencies rendering the judgments and characterizations as any objective or independently established characteristics one may actually have. In a word, what "followers" or colleagues tell us about "educational leaders" tell us as much if not more about the followers and colleagues as it tells us about the educational leaders. Dissatisfaction with educational leaders, therefore, may in part reflect self-dissatisfactions in the leader's followers and colleagues, which would lead to different remediation and change strategies and actions. This fact, in part accounts, for the often observed finding that eliminating or replacing unsatisfactory leadership often makes little difference and solves few problems. This research suggests that only part of the problem and perhaps only the least important part of the problem, has been changed by eliminating or replacing unsatisfactory leaders and that the desired changes sought will only come about when the followers and colleagues modify the areas of dissatisfactions in themselves. Astute educational leaders, therefore, often read dissatisfactions expressed about them as cues as to the issues and areas that they should focus upon in their followers and colleagues. Such educational leaders seem to be constant survivors of one trouble patch after other with the fact that the followers and colleagues are also survivors and improving from one trouble patch to the next going unnoticed. Such astute educational leaders may perhaps be the ultimate relational leaders.

The results presented above clearly show that relational leadership (or any leadership style most probably) is not an objective and homogeneous property of a given principal or leader, but the results of several intervening variables associated with the person rating/judging the leadership style of the principal or leader. Further, they show that these background variables and personal schemas are very powerful variables and influencers of ratings and judgments of leadership characteristics and style. For example, the correlations (and F-ratio's) observed in this study strongly support the model that says, "IF a teacher rates his or her principal as being a highly relational leader, then that teacher will have high trust of that principal". However, no principal's leadership style was homogeneous as rated by the teachers he or she managed, so that the degree to which any principal will be trusted will vary widely and considerably. Therefore,

statements about trust can only be strongly made about individuals (teachers) rating principals not about the principal as a generalization, not only because of the wide variance in individual judgments, but also because the mean level and the variance of the ratings are highly dependent on the characteristics of the individuals in the group doing the ratings. This point means also that comparing findings from study to study is both difficult and tricky as it depends to a great degree on how equivalent the groups are in the different studies.

The classic model of leadership qualities being objective and independent homogeneous properties of leaders was not supported in this study. The rival view that leadership characteristics and properties are strongly influenced and affected by the schemas, perceptions and individual characteristics of the followers was strongly supported. This view of leadership is the new view of leadership that has been proposed in the psychological literature by Reicher *et al.* (2007), which is strongly supported by the results of this study. Obviously these findings will need to be replicated in further studies.

CONCLUSION

The Relational Leadership scale developed is a reliable and valid measure of the leadership construct it seeks to assess and the only objective measure of this construct of leadership presently available. The convergent and discriminant validity evidence for the scale was both strong and convincing as was the unobtrusive discriminant findings and the various factor analyses done. However, this scale, in our opinion, as well as other leadership scales (and the trust scale), must be used very cautiously and very carefully with close attention that apples are being compared to apples and not tricycles in a given study or sample. It is reasonably clear and straight forward from this study that these three constructs examined in this study mean different things to different types of respondents and that these meaning are not directly comparable. It is also reasonably clear that what a score on these three instruments means depends on the background characteristics of the respondents and that the meaning of a sample mean would depend to some degree on the composite of the sample in terms of respondent types.

All 9 principals in this study were simultaneously classified as high, medium and low relational leaders by subgroups of teachers these principals were managing in their school. The variances within the high, medium and low relational leadership categories was extremely high and the one way F-ratio between these three categories on trust as the dependent variable was significant at the 0.001 level ($F = 14.9$, $df_1 = 2$,

$df_2 = 431$). But this F-ratio should have been in the nine hundreds and not the teens as the direct correlation between the RLQ and Trust was $r+.90!$ This one fact alone makes our point. These high, medium and low relational leadership ratings were correlated to and influenced by gender, school level and teaching experience. Therefore, relational leadership, like all other models of leadership in our opinion, does not describe “objective properties and characteristics” of leaders but “interactional (and subjective) properties and characteristics” because of the variables (e.g., gender, teaching level and teaching experience) that intervene between the leader and the ratings of her characteristics and attributes. One, therefore, cannot make absolute statements about leaders or their characteristics or attributes if they are measures through human ratings and evaluations.

The results of this study indicate that the results of prior studies need to be reinterpreted in light of its findings and that qualitative and case studies of leadership need to closely attend to the findings of this study and the manner in which the background characteristics of the observer or interviewer may significantly bias or distort the data and the findings derived from it. As more and more qualitative and case studies of leadership are being done now, the results of this study raises several clear red flags about the results of such studies and the factors that must be attended to and dealt with in such study relative to obtaining interpretable and valid results.

Lastly, as previously stated, whether one is a school principal, university president, or legislative committee member, how one is described, characterized, assessed and evaluated as an educational leader is at least as much (if not more) of a function of the characteristics of the constituencies rendering the judgments and characterizations as any objective or independently established characteristics one may actually have. This view of leadership is the new view of leadership that has been proposed in the psychological literature by Reicher *et al.* (2007), which is strongly supported by the results of this study. Dissatisfaction with leaders, therefore, may in part reflect self-dissatisfactions of the leader’s followers and colleagues, which would lead to different remediation and change strategies and actions that are counter-intuitive. Astute leaders, therefore, often reads dissatisfactions expressed about them as cues as to the issues and areas that they should focus upon in their followers and colleagues as opposed to themselves. Such leaders seem to be constant survivors of one trouble patch after other with the fact that the followers and colleagues are also survivors and improving from one trouble patch to the next going

unnoticed. Such astute leaders, therefore, may perhaps be the ultimate relational leaders.

REFERENCES

- Bauer, T. and S. Green, 1996. Development of leadership-member exchange: A longitudinal test. *Acad. Manage. J.*, 39: 1538-1567.
- Campbell, D.T. and D.W. Fiske, 1959. Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychol. Bull.*, 56: 81-105. <http://www.ncbi.nlm.nih.gov/pubmed/13634291>
- Carifio, J. and R. Biron, 1982. Collecting sensitive data anonymously: Further findings on the CDRGP Technique. *J. Alcohol Drug Educ.*, 25: 38-70. http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=EJ264077&ERICExtSearch_SearchType_0=no&accno=EJ264077
- Carifio, J., 1994. Sensitive data and students tendencies to give socially desirable responses. *J. Alcohol Drug Educ.*, 39: 74-84. http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=EJ480719&ERICExtSearch_SearchType_0=no&accno=EJ480719
- Costello, A.B. and J.W. Osborne, 2005. Best practices in exploratory factor analysis: Four recommendations for getting the most out of your analyses. *J. Pract. Assess. Res. Evaluat.*, 10: 1-9. <http://pareonline.net/pdf/v10n7b.pdf>
- Deluga, R.J., 1994. Supervisor trust building, leader-member exchange and organizational citizenship behavior. *J. Occupat. Org. Psychol.*, 67: 315-326. <http://cat.inist.fr/?aModele=afficheN&cpsid=3322647>
- Eyemaro, B., 2001. A convergent/discriminant study of relational leadership and its impact on teacher perceptions of trust. Ph.D. Dissertations, University of Massachusetts-Lowell.
- Graen, G.B. and M. Uhl-Bien, 1995. Relationship-based approach to leadership: Development of leader-member exchange theory over 25 years: Applying a multi-domain perspective. *Leadership Q.*, 6: 219-247.
- Henson, R. and K. Robert, 2001. A meta-analytical review of exploratory factor analysis reporting techniques in published research. Proceeding of the Annual Conference of the South West Educational Research Association, Feb. 1-3, ERIC, New Orleans, LA., pp: 1-53. http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED449227&ERICExtSearch_SearchType_0=no&accno=ED449227
- Komives, S., N. Lucas and T. McMahon, 1998. *Exploring Leadership: For College Students Who Want To Make a Difference*. Jossey-Bass, Publishers, San Francisco, CA., ISBN: 10: 0787909297, pp: 368.
- Liden, R.C. and J.M. Maslyn, 1998. Multidimensionality of leader-member exchange: An empirical assessment through scale development. *J. Manage.*, 24: 43-72. <http://www.getcited.org/pub/103370634>
- Martin, D.F., 1999. The impact of trust on leader-member exchange relationships. Master Dissertations, UMI.
- Mayer, R.C., J.H. Davis and F.D. Schoorman, 1995. An integral model of organizational trust. *Acad. Manage. Rev.*, 20: 709-734. <http://www.jstor.org/stable/258792>
- Mayer, R.C. and J.H. Davis, 1999. The Effect of the performance appraisal system on trust for management: A field quasi-experiment. *J. Applied Psychol.*, 84: 123-136. <http://cat.inist.fr/?aModele=afficheN&cpsid=1716388>
- Mertens, D.M., 1997. *Research Methods in Education and Psychology*. Sage Publications, Thousand Oaks, CA., ISBN: 10: 0803958285, pp: 440.
- Noddings, N., 2003. *Caring: A Feminine Approach to Ethics and Moral Education*. 2nd Edn., University of California Press, Berkeley, CA., ISBN: 10: 0520057433, pp: 225.
- Regan, H.B. and G.H. Brooks, 1995. *Out of Women's Experience: Creating Relational Leadership*. Corwin Press, Thousand Oaks, CA., ISBN: 10: 0803962347, pp: 136.
- Reicher, S.D., M.J. Plaitow and S.A. Haslam, 2007. *The new psychology of leadership*. Scientific American Mind. <http://www.scientificamerican.com/article.cfm?id=the-new-psychology-of-leadership>