

An examination of traditional and nontraditional students' evaluations of professorial leadership styles: transformational versus transactional approach

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Abstract: The present study was designed to empirically examine how traditional and nontraditional students varied in their perceptions of and appreciation for "Transformational" versus "Transactional Leadership" Styles as indicated by their survey responses. An "accidental" sample of 150 participants from the general student population at a college in the rural southeastern region of the United States participated in the investigation. The critical questions raised in the present study were whether traditional students differed from nontraditional students on the set of four transformational leadership styles scales. None of the four scales differed by student type. A similar hypothesis was tested with a set of independent samples t-tests. Only the t-test for grade orientation 2 was even marginally significant. Traditional students reported a marginally higher level of grade orientation than nontraditional students. Implications for college professors and administrators are discussed.

Keywords: Transformational, Transactional, Leadership, Traditional, Nontraditional.

I. Overview.

A systematic review of relevant scientific literature reveals a dearth of empirical research that specifically examines the types of instructional and/or classroom leadership style(s) most preferred by both traditional and nontraditional college students. From a general education perspective, Stewart (2006) reports that the overall quality of instructional and/or classroom leadership has typically been determined on the basis of students' test scores. However, the apparent link between students' test scores and their possible preferences for one type of instructional leadership over another has garnered little empirical attention.

We believe this critical issue of students' perceptions and evaluations of professorial leadership style takes on a much greater importance when recognizing the ever increasing number of nontraditional students entering and reentering college. One may question whether an older or nontraditional student would prefer a professor who rewards or punishes a student for his or her academic performance or a professor who seeks to transform the student into a leader.

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The major research question addressed in the present study is whether or not nontraditional students differ from traditional students in their appreciation for and evaluation of different professorial instructional leadership styles? It stands to reason that if students prefer and evaluate one leadership style over another, then such cognitive activity may manifest itself in their academic behavior and performances.

II. Transformational and Transactional Leadership Styles.

Essential to the present investigation is the basic assumption that professorial leadership styles may influence students' academic performances. Burns (1978) theorized that the process of leadership itself actually occurs in one of two ways: either via a transactional or transformational mechanism. For example, in a transformational classroom environment the professor is expected to be dynamic, flexible, stimulating, encouraging, enlightening and visionary (Hallinger, 2003; Stewart, 2006).

The transformational styled professor facilitates students' understandings of how a particular course relates not only to his or her present life, but to his or her future and possibly their children's future (Hallinger, 2003). Even those students who appear on the surface to be less knowledgeable and less comfortable with their learning environment are encouraged to understand that what they bring to the discussion is as important as what students who appear more knowledgeable have to say (Stewart, 2006).

Transactional leadership was purported to rest upon bureaucratic authority and legitimacy (Burns, 1978; Hinkin and Tracey, 1998). Burns (1978) further stated that transactional leaders place greater emphasis on work standards, assignments, and task-oriented goals. In addition, transactional leaders are suggested to place a great deal of focus on assignment completion and overall student compliance with the demands of the organization (Hinkin and Tracey, 1998). Followers (i.e. students) in a transactional based system are approached by the professor with the intent to exchange and/or reward a grade with performance that is generally based upon exam scores (Burns 1978). Stewart (2006) notes, for example, leaders utilizing the transactional leadership style may reward the hard-working professor with an increase in salary or tenure; or the professor (i.e. classroom leader) may reward a student with not having to take the final exam as a result of his or her performance on previous exams and/or papers.

In the transactional leadership model, goals and objectives are set, measured, evaluated, and modified by the professor with minimal or no input from those who are deemed instrumental in making sure that such goals were reached (Bass, 1998; Burns, 1978; Hinkin and Tracey, 1998; Stewart, 2006). This notion may be manifested in a college environment when the professor develops a syllabus and course content with minimal input from the actual students (Leithwood, 1992). The incentives are set to ensure that students work diligently, if not efficiently, to make sure that the course objectives are met (Stewart, 2006). Of course, some students work fervently to get the job done because their academic wellness, possible graduate school, and possible personal economic welfare are tied to graduating with a respectable grade point average (Hinkin and Tracey, 1998; Stewart, 2006). Transactional leadership is centered on a form of operant conditioning whereby employees or even students perform certain duties and tasks to receive rewards and to avoid punishment (Hinkin and Tracey, 1998; Leithwood, 1992; Stewart, 2006).

In stark contrast, Burns (1978) characterized transformational leadership as a process that motivates followers by appealing to higher ideals and moral values. Importantly, transformational leadership style is thought to be applicable to a number of arenas including, but

not limited to: the military, educational advancements, businesses, medical complexes and other domains as well (Bass, 1998; Burns, 1978; Leithwood, 1992; Stewart, 2006).

Transformational leaders must be able to define and articulate a vision for their organizations, and the followers must accept the credibility of the leader (Bass, 1998; Burns, 1978). The leader must look for potential motives and hidden capacities and abilities in their participants and then seek to enhance those motives and capacities via transformational instruction (Burns, 1978; Leithwood, 1992). Transformational leadership is said to represent a mutual relationship that transforms followers into leaders and leaders are transformed into change agents (Bass, 1998; Burns, 1978; Leithwood, 1992; Stewart, 2006).

Bass (1998) found empirical evidence to support the idea that transformational leadership is quite important and that it possesses the capacity to inspire people beyond what was expected by themselves and by others. Additional support for the empirical efficacy of transformational leadership comes from Howell and Avolio's (1993) findings that branch managers' transformational leadership (operationally defined as charisma, intellectual stimulation, and individual consideration) predicted consolidated business unit performance one year later.

There are at least two additional studies using experimental designs that have indicated the specific role of "transformational leadership" as a precursor to increased or better performance among students. Howell and Frost (1989) found that student participants working under charismatic and/or transformational leaders demonstrated higher task performance than those working under considerate leaders. Kirkpatrick and Locke (1996) conducted a laboratory study, with business students as participants, in which they manipulated three major aspects of charismatic/ transformational leadership, namely: vision, vision implementation through task cues, and communication style. The results of their study revealed that only vision and vision implementation affected performance outcomes and attitudes. However, the leaders' charismatic communication style influenced followers' perceptions of charisma (Kirkpatrick and Locke, 1996).

Derived from the transformational process is the critical tenant of mutual admiration. In the transactional leadership arena mutual admiration is tied more to a student's grade than to whether the student's displayed increase levels of motivation and morality through mutual respect and admiration (Bass, 1996; Burns, 1978; Leithwood, 1992; Stewart, 2006). According to Burns, (1978, p. 20), this latter form of leadership and mutual admiration seeks to "raise the level of human conduct and ethical aspiration of both the leader/professor and led/student, and thus it has a transforming effect on both."

Transformational leadership is thought to produce a change that benefits both the relationship and the resources of those involved (Stewart, 2006). The result is a change in the level of commitment and the increased capacity for achieving their mutual purposes (Williams, 2006). Leithwood's (1992, 1992a) studies determined that transformational leadership in education was limited but uniformly positive in the classroom. Transformational education in the classroom required visionary and moral/ethical leadership (Siegrist, 1999). Thus, it can be suggested that transformational leadership made a difference in achieving success in the classroom and in meeting the goals and mission for administering education.

In this model, exchange is viewed from a more lateral position than from a linear position. In doing so, staff members and students may feel more ownership with the project and the actual course. Here the incentives are based upon group efforts and rewards rather than upon individual efforts and rewards.

III. Traditional vs. Nontraditional Students.

Consistent with the specific focus of the present study, it is reasonable to think that through the college education process most students would like to see their lives transformed for the better. This may be particularly true for nontraditional students who may seriously question whether they have the cognitive skills and time allocation needed to compete with more traditional students. In a transformational classroom environment, nontraditional students are viewed as an integral part of the class because they may invoke real world experiences into the classroom discussions.

On the other hand, the nontraditional student may not want to receive instruction that goes beyond what is found in their textbook. As well, nontraditional students may not prefer professors who display charisma, vision, intellectual stimulation and other important characteristics found in the transformational leadership style. Instead, nontraditional students may prefer to stay focused on the specific course materials and receive a good grade and move on to the next class. This may be true due, in part, to a greater sense of urgency about graduating.

There is an important third possibility that exists within the transformational versus transactional leadership area. It is a clear possibility that students have a preference for both transformational and transactional leadership characteristics. It is clear that transformational leadership styles are not orthogonal to transactional leadership styles. Put simply, the two constructs are not deemed mutually exclusive of one another.

For example, research conducted by Avolio et al. (1995, 1996) and Bass and Avolio (1997) found high correlations among the five transformational scales and the transactional scale of contingent reward. According to Bass and Avolio (2000) these findings were to be anticipated because transformational and transactional leadership are both active as well as positive forms of leadership styles. To this end, students may show a preference for a professor who displays charisma and intellectual stimulation and still be committed to staying focus on the specific course materials and their final grades.

To our knowledge no previous study has sought to examine how traditional and nontraditional students perceive and evaluate professorial leadership styles. Therefore, the present study may best be viewed as exploratory in nature. In that much of the transformational/transactional literature is related primarily to corporate America, the present study is designed to begin a series of research that will examine the applicability and viability of incorporating components of the “transformational leadership” model into the college classroom. The college classroom was selected because from a traditional perspective, college classrooms and the college environment parallel the types of personnel in virtually all corporate environments. As such, this is the first in what is to be a series of studies designed to illuminate some of the more efficacious factors that impact traditional versus nontraditional students’ evaluations and academic performances from a professorial leadership style perspective.

IV. Methods Section.

A. Participants.

An “accidental” or convenience sample of 150 participants from the general student population at a college in the rural southeastern region of the United States participated in our

investigation. Respondents in the study were college students who volunteered to participate; they received neither remuneration nor course credit for their participation.

In the present study, there were 85 (56.7%) women and 65 (43.3%) men; there were 62 (41.3%) traditional students and 85 (56.7%) nontraditional students. The mean age was 29.75, with a range from 18 to 55 years of age. Forty-eight (32%) of the students were first generation college students.

For the purposes of the present study, the traditional student is operationally defined as students who are between the ages of 17 and 24. Nontraditional students are operationally defined as students who are age 25 or over. All selection and methodological procedures were approved by the Human Subjects Review Committee (HSRC) and were in accord with the ethical standards and requirements set by the overall college committee.

B. Materials.

A critical aspect of this study was to measure how traditional and nontraditional students perceived and evaluated professorial leadership styles from both a transformational and transactional perspective. Most of the previous research conducted on leadership styles had featured scales that were not amenable to the specific focus of the present study. Therefore, Dr. Ronald Lynn Poulson developed a survey entitled the Professorial Leadership Style Questionnaire (PLSQ). Dr. Poulson designed the survey around characteristics featured in both transformational and transactional leadership research.

Once, the survey was developed, it was pilot-tested by both the first and second authors. The survey was then presented to both faculty and students to view for face validity. Following these iterations, a final number of 50 Likert Scale items (very much – to not at all) were included in the PLSQ (for copies and a full and detailed discussion of the PLSQ, please contact Dr. Ronald Lynn Poulson at Elizabeth City State University).

V. The Professorial Leadership Style Questionnaire (PLSQ).

A. Vision.

Having ideas and a clear sense of direction, communicating the ideas, and developing enthusiasm towards accomplishing the goals (Politis, 2004). This study featured four questions that dealt directly with the “Professor’s Vision” for the course. For example, question 5 asked: To what degree do you believe that your college professors should possess a positive vision about your future chances in life?

B. Charisma.

Charisma is associated with creating and developing enthusiasm by using through the power of personal regard for their students (Politis, 2004). For example, question 43 asks: On a scale of 1 to 7, how much do you appreciate professors who are full of energy and drive about transforming students’ lives?

C. Intellectual stimulation.

Inspiring students to want to go beyond being and doing average work; inspiring students to want to be more critical in their thinking and engage in critical debate about various topics which in turn will help to transform their lives (Politis, 2004). For example, question 19 asks: how important is it to you that college helps to transform your way of thinking?

D. Creativity.

Developing a new way of doing old things. Employing new strategies to attack old problems; use creativity to get students to go the extra mile. Creating new ways of measuring performance; thinking and doing outside of the “traditional” box (Politis, 2004). For example, question 23 asks: on a scale of 1 to 7, how important is it to you that professors start to give credit to students for their creativeness rather than their correctness on exam essay questions and question 20 asks: how important is it to you that college helps you to develop new ways of thinking about old problems?

VI. Measures of Transactional Leadership Style.

In contrast with these concepts/factors that have been associated with “Transformational Leadership Style,” there are other factors that have a more traditional association with Transactional Leadership Style. For example, transactional leaders employ a strong degree of structure in order to reach their goals. In this study, a series of questions were created that were designed to assess some of the traditional beliefs underlying the education process. One of the traditional beliefs is that student performance is best measured by letter grades. Letter grades, in return, either serve as a positive reinforcement or as a punisher. The student will either modify his or her behavior or maintain similar behavior depending upon their mid-term grades. For example, there were 12 questions that dealt with student’s preoccupation with letter grades as opposed to the values of learning.

A. Grade Orientation.

There are 12 questions that were designed to assess a student’s orientation toward letter grades. For instance, questions 15 and 16 respectively ask: How important is it for you to earn a grade of B or better in a class? And, how important is it for you to learn from the class rather than what grade you earn in the class?

B. Instructor/Course Flexibility.

In addition to grade orientation, four questions were asked that dealt with course flexibility. The idea is that the student who is more oriented towards the Transactional Leadership Style will be opposed to professors who deviate from their course syllabus; even if it means bringing more relevant information into the actual course. An example of these questions is found in question 27 which asks: on a scale of 1 to 7, how much do you dislike it when a professor deviates from the syllabus in order to introduce additionally relevant information?

VII Procedure.

In an attempt to make sure that a reasonable cross-fertilization of participants was featured in the present study, various faculty members who teach either in the “traditional” program and/or the “nontraditional” program were approached to see if they would assist in administering the survey. Clear attempts were made by the researcher to approach some faculty members who are teaching primarily freshman level students in the traditional realm and freshman level students in the nontraditional realm. This process was repeated for each of the four levels of students (i.e., freshman, sophomore, junior, senior).

Each participant was given a copy of a consent form that clearly described the nature of the present study. Both the senior researcher and the participant signed a consent form before the survey was administered. The consent form was then placed in a separate envelope, sealed by the participant, and then placed in a separate box. The sealed envelope was signed with the corresponding year (i.e., 2007) in a manner that covered both the flap and the envelope itself. At the end of each testing session, consent forms were placed into a locked file cabinet.

Upon their accepting to participate in the study, each participant was seated in an area where no other participants could either observe their answers or communicate with them about the study. A researcher was present in the classroom throughout the testing session. The average time for completion of the survey was 27 minutes. After completing the survey, each participant was asked to place it in a sealed envelope and to write 2007 across the seal. Any survey that may show signs of being tampered with would be removed from the study. At the end of each testing session, a senior researcher would place the completed surveys into a locked cabinet.

VIII. Results.

The goal in this study was to discover which questions/variables featured in the survey would serve to form an identifiable and coherent subset of questions/variables that were independent of one another. Responses to particular questions featured in the survey that were correlated with one another but were mostly uncorrelated with other subsets of responses were combined into factors. The derived factors are believed to show the underlying processes that have created the shown correlations among variables (Tabachnick and Fidell, 2007).

In order to examine the structure of the PLSQ scale, several analytical methods were used. First, an exploratory factor analysis was utilized to determine if the factor structure of the set of items fit the proposed structure of the measure. Unfortunately, a sample size of 150 was not sufficient to adequately test the structure of 50 items, this would require between 500 and 1000 participants (Tabachnick and Fidel, 2001). Therefore, it was not surprising that the factor structure did not replicate the structure of the proposed measure. However, many items were reliable, as proposed. Confirmatory factor analysis using EQS 6.1 was also used to test whether the structure of the data fit the proposed structure.

In order to determine whether the items for each measure worked well together as a scale, confirmatory factor analysis was used separately for each scale to determine the fit of the model and which items did not fit with the scale. The CFI (confirmatory fit index) and the chi-square results are reported. The CFI indicate whether the data is a good fit to the proposed model. The CFI ranges from 0 to 1. CFIs larger than 0.70 are good, larger than 0.80 are very good, and larger than 0.90 are excellent. Ideally the chi-square test should not be significant, indicating that the structure of the data does not differ from the proposed structure. However, with datasets over

100 participants the chi-square is highly sensitive to slight deviations and often is significant even with a large CFI. Cronbach's alpha, a measure of internal consistency was also conducted for each scale, after examination by the confirmatory factor analysis. The final Cronbach alphas and CFI values for each scale are reported in table 4. First the transformational style measures were examined. The eight items for the charisma scale were an excellent fit for the data, CFI = 0.97, $\chi^2(20) = 23.29$, ns, Cronbach's alpha = 0.70. The seven items for the stimulation scale were a very good fit for the data, CFI = 0.82, $\chi^2(14) = 39.18$, $p < 0.001$, Cronbach's alpha = 0.70. The three items of the vision scale were too few to test with the confirmatory factor analysis so they were solely examined with the measure of internal consistency Cronbach's alpha = 0.50, which is lower than ideal. The thirteen items of the creativity scale had a good fit, CFI = 0.76, however, two items (9 and 30) did not load onto the factor. Once those two items were dropped, fit was improved, CFI = 0.85, $\chi^2(44) = 76.46$, $p < 0.01$, Cronbach's alpha = 0.81.

The two transactional style measures scales were examined next. The five items of the flexibility scale did not have a good fit, CFI = 0.57. Two items (13 and 14) did not load onto the factor so they were dropped. Unfortunately with only three items remaining confirmatory factor analysis was no longer appropriate so no CFI value is reported, however Cronbach's alpha = 0.72. Grade orientation did not have a good fit, CFI = 0.79. Seven items did not load onto the factor; however, four out of the six were highly correlated with each other and suggested a second dimension of grade orientation. Three items (16, 31 and 41) were dropped and items 46, 47, 48 and 49 were examined as a separate factor. The fit of the two factor structure had a better fit, CFI = 0.79, $\chi^2(26) = 36.42$, $p < 0.001$, Cronbach's alpha = 0.57 for the first factor of grade orientation and Cronbach's alpha = 0.82 for the second measure of grade orientation. A summary of the preceding analysis is shown in Table 1.

Table 1. Professorial Leadership Scale Questionnaire Psychometric Properties.

	Original Items	Final Items	Final Cronbach's Alpha	Final CFI
<i>Transformational Style Measures</i>				
Charisma	1, 2, 7, 11, 34, 38, 43, 50	1, 2, 7, 11, 34, 38, 43, 50	0.70	0.97
Stimulation	3, 4, 19, 22, 29, 35, 45	3, 4, 19, 22, 29, 35, 45	0.70	0.82
Vision	5, 8, 21	5, 8, 21	.050	N/A
Creativity	9, 10, 12, 17, 18, 20, 23, 30, 33, 39, 40, 42, 44	10, 12, 17, 18, 20, 23, 39, 40, 42, 44	0.81	0.85
<i>Transactional Style Measures</i>				
Grade Orientation I	15, 16, 25, 31, 32, 36, 37, 41, 46, 47, 48, 49	15, 25, 32, 36, 37	0.57	0.79
Grade Orientation II	N/A	46, 47, 48, 49	0.82	0.79
Flexibility	13, 14, 26, 27, 28	26, 27, 28	0.72	0.57

The transformational leadership style measures were strongly correlated with each other. The correlations ranged from $r = 0.60$ to $r = 0.67$. These were all significant at the $p < 0.001$ level. On the other hand, among the transactional leadership style measures, flexibility was not

correlated with either measure of grade orientation; however, the two measures of grade orientation were strongly correlated with each other at $p < 0.001$, with a p value of 0.001

One of the critical questions raised in the present study was whether traditional students differed from nontraditional students on the set of four transformational leadership styles scales. None of the four scales differed by student type, (charisma: $t(144) = 0.92$, ns; stimulation: $t(144) = 1.18$, ns; vision: $t(144) = 0.31$, ns; creativity: $t(144) = 0.34$, ns).

A similar hypothesis was tested with a set of independent samples t-tests comparing traditional and nontraditional students on the set of three transactional leadership style measures. Only the t-test for grade orientation 2 was even marginally significant, with a p value of 0.054, $t(144) = 1.94$, $p < 0.10$. Traditional students ($M = 5.53$, $SD = 1.00$) reported a marginally higher level of grade orientation than nontraditional students ($M = 5.14$, $SD = 1.34$). Flexibility was not significantly different by student type, $t(144) = 0.70$, ns; and neither was grade orientation 1, $t(144) = 0.23$, ns. A summary of the independent samples t-tests is shown in table 2.

Table 2. Means by Type of Student for the Transformational and Transactional Scales.

	Type of student	N	Mean	Standard deviation	p- value
Charisma	Traditional	62	5.78	0.76	0.927
	Nontraditional	85	5.77	0.69	
Stimulation	Traditional	62	5.78	0.90	0.241
	Nontraditional	85	5.61	0.91	
Vision	Traditional	62	5.79	0.84	0.760
	Nontraditional	85	5.84	0.82	
Creativity	Traditional	62	5.47	0.80	0.737
	Nontraditional	85	5.42	0.80	
Flexibility	Traditional	61	4.77	1.37	0.485
	Nontraditional	85	4.60	1.49	
Grade Orientation 1	Traditional	61	4.83	0.68	0.815
	Nontraditional	85	4.80	0.63	
Grade Orientation 2 ⁺	Traditional	62	5.53	1.00	0.061
	Nontraditional	75	5.14	1.34	

⁺ $p < 0.10$

IX. Discussion.

One of the quintessential questions found within empirical research is what does null findings actually mean and of what value are they? In the present, it was hypothesized that traditional students would differ from nontraditional student in terms of the appreciation of professorial leadership styles. In light of the fact that this was one of the first studies to address this potentially important issue, there was little available research to guide the development of the actual hypotheses. As a result, the present study is best viewed as exploratory and thereby all hypotheses were meant to be non-directional or two-tailed hypotheses. We could not say which group would be more or less appreciative of which style; but instead, that a statistically significant difference may exists between the two groups.

As this research has shown, there was a high correlation between transformational scales and transactional scales. This is consistent with the previous research of Avolio et al. (1995, 1996) and Bass and Avolio (1997) who also found high correlations among the five transformational scales and the transactional scale of contingent reward.

According to Bass and Avolio (2000) these findings were anticipated because transformational and transactional leadership are active as well as positive forms of leadership styles. Data found in the present study supports this finding by indicating that participants endorsed transformational characteristics as well as transactional characteristics. These endorsement were unaffected by whether the student was termed traditional or nontraditional. All participants showed a preference for professors who may be charismatic, but yet held to the more traditional standards and beliefs about college instruction. We deem these null findings to be quite illuminating in that all students appear to endorse the idea of education being transforming, yet they still wanted to ensure that they made a good grade and the class was very structured. We believe that we our study demonstrates some of the complexities associated with professorial leadership style and students' academic performances.

A. Limitations of the Present Study.

There are a number of limitations found in the present study that would prohibit conclusive remarks about the saliency and clarity of its findings. First, each of the participants was rating in the abstract what they would or would not like in terms of professorial leadership styles. Ideally, participants would be randomly assigned to a number of professors who would either demonstrate a transformational learning environment or a transactional learning environment. However, before such laboratory studies can be conducted, one first has to have an instrument that does not feature high levels of multicollinearity. We propose to continue work on the PLSQ in order to identify questions that are even more reliable and cogent to this investigation.

The second limitation of the present study is that random selection of participants was not used. When random selection is not used, we recognize that any attempt to generalize beyond the 150 participants is obviated. In future studies, we have identified a method to have college students randomly selected from the overall student population.

The third limitation of the present study is tied directly to the PLSQ and the lack of an appropriate sample size. In future research on the actual PLSQ it is our specific goal to have sample sizes that are randomly selected and that are more than 500 in size.

In the present study, we did not address the cognitive underpinnings and theoretical findings relative to the evaluation and/or appreciation of some specific target. Our goal at this time was to simply develop a tool that would allow us to see if any differences existed along the leadership continuum that would differentiate traditional from nontraditional students.

B. Strengths of the Present Study.

Despite a number of caveats that appear in the present study, we have initiated an important line of investigation that we believe is critically important to understanding the many causally efficacious factors that impact college student academic performance. We propose to strengthen this line of research by incorporating personality measures as well as some of additional cognitive measures that will allow for greater illumination of how professorial leadership style impacts academic performance.

We may choose in future research to actually maximize the variance by looking at how traditional students between the ages of 17 and 24 differ from nontraditional students that are

above the age of 35. It could be that in the present study, much older students do differ from traditional students in terms of their appreciation and evaluation of professorial leadership styles.

In summary, it is believed that transformational leadership and transactional styles have a place in the classroom and both can help create a positive learning environment. It is the goal of our research team to continue to examine this important research area.

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