

Full Length Research Paper

## Students' learning environment and education quality in Faculty of Education of University of Tehran

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The main aim of this article is to review between students' learning environment and education quality. A non-experimental, quantitative, SPSS 17.0 research design was used to explore the relationship between background demographic characteristics, transformational, and transactional leadership styles, learning environment, and education quality. The data collection includes 292 returned surveys from 350 distributed questionnaires, yielding 83% return rate. Analysis of the research results found a significant relationship among learning environment, quality education, and teachers' transformational and transactional leadership styles. A background demographic characteristic of type of schools was also statistically significant in transformational and transactional leadership, learning environment, and education quality. Teachers' transformational leadership style has significance for the learning environment, and transformational leadership styles. Transformational and transactional leadership styles have no significant explanatory variables of perceived learning environment with student cohesiveness, teacher support, involvement, order and organization, cooperation, and equity.

**Key words:** Leadership styles, learning environment, quality education.

### INTRODUCTION

The current era of globalization has generated a phenomenon in business and educational organizations. Leadership has attempted to broaden the globalized academic context (Dimmock and Walker, 2000; Webber and Robertson, 2003). The current worldwide transformation of universities has become common and some institutions have begun to resemble each other (Marginson, 2010; Ramirez, 2010). The increase of Iran universities has challenged academic leaders more than ever before in a fierce competitive higher education market (Panagiotis and Dimitra, 2009).

Iran higher education includes college and universities, graduate schools, and post-graduate programs. Lewin (1936) believed that all behaviors and experiences reflect a person's environment. Constructive learning environ-

ments are learner-centered, so students become active participants in education areas. Therefore, in the learning centered environment, students focus on learning rather than teaching (Reushle, 2006). College institutions have a serious battle because of their uneven distribution of resources. Public institutions obtain more funding than private ones and urban districts than rural ones.

### LITERATURE REVIEW, RESEARCH QUESTION AND HYPOTHESES

#### Transactional and transformational leadership

"Academic leadership is one of the most important factors

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when initiating and implementing institutional development or change process" (Panagiotis and Dimitra, 2009, p. 296). Leadership is "a process whereby an individual influences a group of individuals to achieve a common goal" (Northouse, 2007, p.6). Transformational leadership is a process that motivates and inspires teams to be effective and efficient. Leaders have high visibility and commend getting a job done (Burn, 1978). The role of transformational leadership needs the challenge of changing times (Bolden et al., 2003). Bass and Avloio (2003) suggested five component of transformational leadership: a) idealized influence or attributed charisma; b) idealized influence or behavioral charisma; c) inspirational motivation; d) intellectual stimulation; and e) individualized consideration

Transactional leadership confirms the relationship between performance and reward and gives leaders the opportunity to lead the group and to accomplish goals in exchange for something else (Burns, 1978). Transactional leadership has remained as the organizational model (Bolden et al., 2003). Bass and Avloio (1997) suggested three components of a) contingent reward; b) management by exception (passive); and c) management by exception (active).

Lewin et al. (1939) introduced his seminal theory on the influence of leadership styles based on the leader's decision-making behavior. This theory identifies three major constructs of authoritarian, democratic, and Laissez-fair leadership. Similar to Lewin's (1939) model, the theory has been revised and adapted to the behavior leadership model (the Blake-Mouton Managerial Grid by Blake and Mouton (1964)). Adair (1973) developed an action-centered leadership model depicting the direct and indirect relationship among task, individual, and team concepts, which continues to be examined today (Bolden et al., 2003). James and Burgoyne (2001) was the first to apply his concept to transformational leadership. Studies by Tichy and Devanna (1986) described the hybrid nature of transformation.

### Learning environment

The learning environment field has undergone 30 years of diversification and internationalization (Fraser, 1998a). Fraser (1994) described that classroom environment quality plays a significant role in student learning. International research in this field involves the assessment, conceptualization, and investigation of perceptions of the classroom environment (Fraser, 1994, 1998a).

Jonassen (1999) proposed a model for designing constructivist learning environments and introduced three components in constructivist learning environments: problem, question, or project as the focus of the environment. Hannafin et al. (1999 p. 126) mentioned, "Learning environments are typically constructivist in nature, engaging learners in "sense-making" or reasoning

about extensive resource sets".

### Quality of education

The quality of higher education has become a major concern worldwide (Stella, 2002). In 1990, the World Declaration on Education recommended improving poor quality education in universities (Global Monitor Report, 2005). The 2008 Shanghai index of the *Academic Ranking of World Universities* noted that North and Latin America account for 85% of the top 20 universities. The top universities include 17 American universities, two universities in the United Kingdom, and one in Japan (Ntshoe and Letseka, 2010). The Shanghai ranking of the *Academic Ranking of World Universities* indicated the emergence of global university ranking systems, measuring four qualities a) quality of education; b) quality of faculty; c) research output; d) per capita performance (Marginson, 2010; Portnol et al., 2010).

Since 2000, Iran College and University administration system are attracting high school and vocational students. These channels are recommendations from schools, individual applications, examinations, and placements.

### Hypotheses

H1: Learning environment and education quality has statistical difference on teachers' transformational and transactional leadership styles.

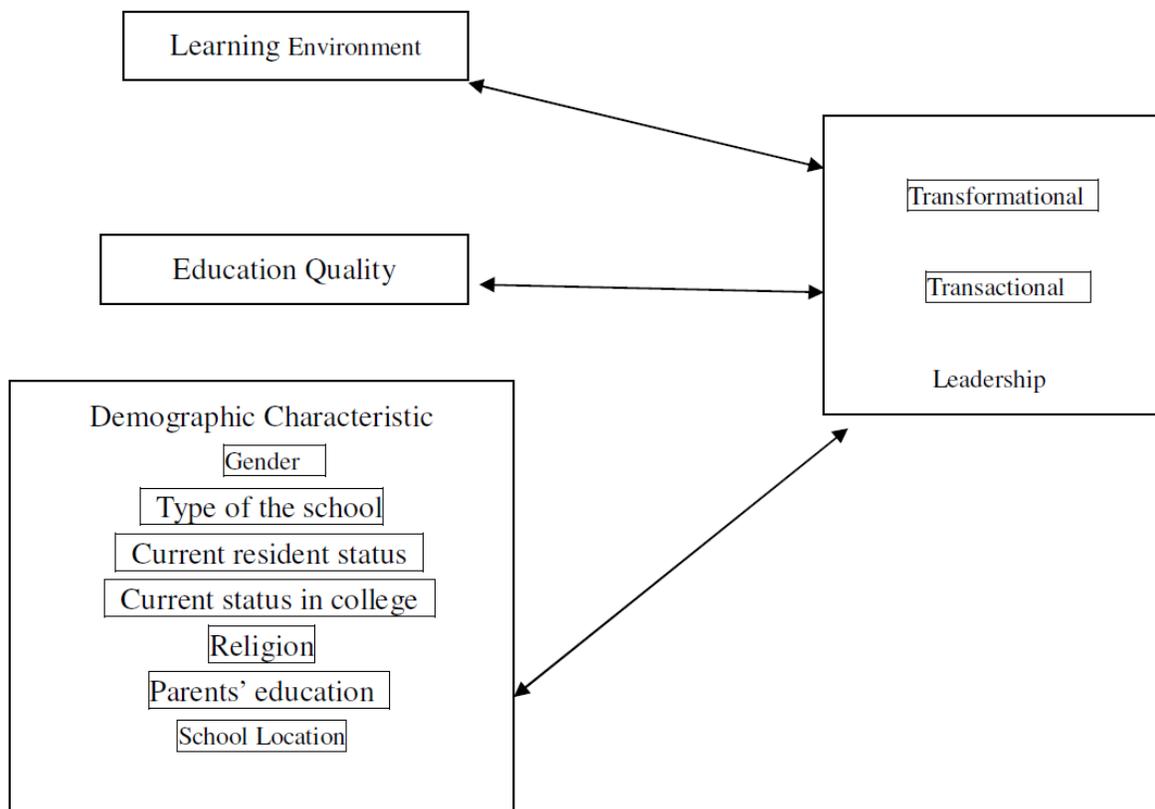
H2: A background demographic characteristic with type of school (public school, private school) has significant explanatory variables of perceived transformational and transactional leadership, learning environment, and education quality.

H3: Teachers' transformational leadership style is statistically significant for learning environment.

H4: Teachers' transactional leadership style is statistically significant for education quality.

H5: Teachers' transformational leadership styles (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration) and transactional leadership styles (contingent reward, active management by exception, passive management by exception) are significant explanatory variables of perceived learning environment (student cohesiveness, teacher support, involvement, order and organization, task orientation, cooperation, equity).

H5a: Teachers' transformational leadership styles (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration) and transactional leadership styles (contingent reward, active management by exception, passive management by-exception) are significant



**Figure 1.** Theoretical framework (several variables).

explanatory variables of perceived learning environment with *student cohesiveness*.

H5b: Teachers' transformational leadership styles (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration) and transactional leadership styles (contingent reward, active management by exception, passive management by exception) are significant explanatory variables of perceived learning environment with *teacher support*.

H5c: Teachers' transformational leadership styles (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration) and transactional leadership styles (contingent reward, active management by exception, passive management by exception) are significant explanatory variables of perceived learning environment with *involvement*.

H5d: Teachers' transformational leadership styles (idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration) and transactional leadership styles (contingent reward, active management by exception, passive management by exception) are significant explanatory variables of perceived learning environment with *order and organization*.

H5e: Teachers' transformational leadership styles

(idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration) and transactional leadership styles (contingent reward, active management by exception, passive management by exception) are significant explanatory variables of perceived learning environment with *task orientation*.

## METHODOLOGY

### Research design

A non-experimental, quantitative, SPSS 17.0, research design was used to explore the relationship of background demographic characteristics, transformational and transactional leadership, learning environment, and education quality (Figure 1).

### Population and sampling plan

#### Target population

The random sample included students enrolled in Faculty of Education of University of Tehran.

#### Sampling plan

The entire accessible population was invited to participate in the

**Table 1.** MANOVA analysis of transformation and transactional leadership, learning environment, and quality of education.

Variable	df	SSCP	Value	F value transformational leadership	F value transactional leadership	Sig.
Learning environment	4	[ 6.419 5.925 ] [ 5.925 9.230 ]	.924	3.618	3.173	.050 .044
Quality education	4	[ .492 -.554 ] [ -.554 4.068 ]	.967	.277	1.398	.004 .020
Learning environment * Quality education	9	[ 3.121 .446 ] [ .446 8.628 ]	.923	.782	1.318	.025 .041
Error	18	[ 121.523 67.324 ] [ 67.324 199.267 ]				

**Table 2.** Logistic regression analysis with a background demographic characteristic of type of school (public school, private school), transformational and transactional leadership, learning environment, and quality of education.

		B	S.E.	Wald	df.	Sig.	Exp(B)
Step 0	Constant	1.417	.148	92.048	1	.000	4.123

study. However, the final data-producing sample was self-selected depending on those who agreed to participate in the study.

### Instrumentation

The instrument used in this study includes four parts: For the surveys, (1) *Background Demographic Characteristics* were developed by the researchers, (2) transformational and transactional leadership—measured by the five factors of the *Multifactor Leadership Questionnaire (MLQ Form 5x-short)*, was developed by Bass and Avolio (1995), (3) learning environment was measured by seven factors of *What Is Happening In This Class? (WIHIC)* developed by Fraser (1996), (4) quality of education was measured by the six factors of *Instructions for Delphi Survey*, developed by Dalkey (1969).

## RESULTS

### MANOVA analysis

In Hypothesis 1, learning environment and quality education have statistical difference for teachers' transformational and transactional leadership style (Table 1).

### Logistic regression analysis

In Hypothesis 2, a background demographic characteristic with the type of school has significant explanatory variables of perceived transformational and transactional leadership, learning environment, and quality of education

(Table 2).

### One-way ANOVA analysis

In Hypothesis 3, teachers' transformational leadership style has statistical significance for learning environment (Table 3).

In Hypothesis 4, teachers' transformational leadership style has no statistical significance for quality education (Table 4).

### Two-way ANOVA analysis

In Hypothesis 5a, 5b, 5c, 5d, 5f, and 5g, transformational leadership styles and transactional leadership styles have no significant explanatory variables of perceived learning environment with *student cohesiveness, teacher support, involvement, order and organization, cooperation, and equity*.

In Hypothesis 5e, transformational leadership styles and transactional leadership styles have a significant explanatory variable of perceived learning environment with *task orientation*.

### Reliability analysis

Cronbach's alphas and item analyses were conducted on all variables: alphas=.887 (Table 5).

**Table 3.** ANOVA Analysis of transformational leadership style and learning environment.

	Sum of squares	df	Mean square	F	Sig.
Between groups	18.442	4	4.610	7.720	.000
Within groups	171.394	287	.594		
Total	189.836	291			

<sup>a</sup>Predictors: (Constant), Transformational leadership style.

<sup>b</sup>Dependent variable: Learning environment.

**Table 4.** ANOVA analysis of transactional leadership style and quality education.

	Sum of squares	df	Mean square	F	Sig.
Between group	4.557	4	1.139	2.036	.089
Residual	160.608	287	.560		
Total	165.164	291			

<sup>a</sup>Predictors: (Constant), Transactional leadership style.

<sup>b</sup>Dependent variable: Quality education.

**Table 5.** Cronbach's alpha coefficients of transformational leadership style, transactional leadership style, learning environment (student cohesiveness, teacher support, involvement, order and organization, task orientation, cooperation, and equity) and quality education (institutional support, technical support, student support, evaluation and assessment).

Cronbach's alpha	Cronbach's alpha based on standardized items	Number of items
.887	.887	13

**Table 6.** KMO and Bartlett's test results on transformational leadership style, transactional leadership style, learning environment, and quality education.

Kaiser-Meyer-Olkin measure of sampling adequacy		.872
	Approx. Chi-square	1758.171
Bartlett's test of sphericity	df	78
	Sig.	.000

### Factor analysis for construct validity

Table 6 shows the results of KMO and Bartlett's test of sphericity. The value of KMO was 0.872. Table 7 indicates that five factor values were larger than one after varimax rotation was extracted, which accounted for almost 65% of total variance.

### Conclusion

This study explored the relationship among demographic characteristics, teachers' transformational leadership style, teachers' transactional leadership style, learning environment, and education quality among 350 student randomly selected in Faculty of Education of University of

**Table 7.** Extraction sums of squared loadings on transformational leadership style, transactional leadership style, learning environment, and quality education.

Components	Total	% of Variance	Cumulative %
1	5.691	43.776	43.776
2	1.488	11.447	55.223
3	1.250	9.615	64.838

Tehran. The survey instruments were used in three colleges for data collection. In total, 292 survey questionnaires were returned, with a return rate of 83%.

Analysis of the research results found a significant relationship among learning environment, quality

education, and teachers' transformational and transactional leadership styles. A background demographic characteristic with type of school (public school, private school) was also statistically significant for transformational and transactional leadership, learning environment, and quality of education. Teachers' transformational leadership style was significant for learning environment. Transformational leadership styles and transactional leadership styles did not have a significant explanatory variable of perceived learning environment with *task orientation*.

However, teachers' transformational leadership style showed no statistical significance for quality education. Transformational leadership styles and transactional leadership styles did not have significant explanatory variables of perceived learning environment with *student cohesiveness, teacher support, involvement, order and organization, cooperation, and equity*.

## PRACTICAL IMPLICATIONS

Leadership styles do play an important role for learning environment and education quality in higher education. The findings of this study might benefit Iran higher education organizations, companies, and educational departments. These institutions could focus on educators' leadership styles to improve the learning environment and education quality.

## FUTURE STUDY AND LIMITATIONS

This study was limited to undergraduate students. The study only focused on a quantitative study with 350 students. Fifteen minutes of answering a survey might not be enough for students fill in and consider all of the questionnaires. Future studies might adopt more methods and explore various variables.

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