

SCHOOL CLIMATE AND ITS EFFECTS ON HIGH SCHOOL TEACHERS IN DIFFERENT TEACHING CATEGORIES

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ÖZET

Sosyal bir sistem olan okul örgütünün formal yapısının, yöneticinin formal ve informal davranış biçimlerinin ve diğer çevresel etkenlerin, okul çalışanlarının tutumları, inançları, değer yargıları ve güdülerinde gözlenebilen öznel etkileri okulun örgütsel iklimi oluşturmaktadır. Bir okul ortamındaki örgütsel iklim, okuldaki bireyler tarafından algılanan, onların davranışlarını etkileyen ve onların davranışlarından etkilenen, görel olarak süreklilik gösteren bir örgüt niteliği, okulun içsel özelliklerinin bir seti ve bir anlamda okulun kişiliğidir.

Bu araştırmada lise öğretmenlerinin çalıştıkları okulların örgüt iklimine ilişkin algıları ve bu algılarının görev alanlarına göre farklılık gösterip göstermediği bulunmaya çalışılmıştır. 2001-2002 Öğretim 2001-2002 Öğretim yılında Afyon ve Uşak kent merkezlerinde 9 genel lisede görev yapan öğretmenlerden alınan 204 kişilik bir örnekleme araştırmacı tarafından uyarlanan bir anket uygulanmıştır. Örgüt iklimi etkenleri örgütsel yapı ve standartlar, otonomi, takım ruhu, çatışma, destek ve arkadaşça ilişkiler, risk alma ve ödüllendirme olarak belirlenmiştir. Verilerin çözümlenmesi için Aritmetik Ortalamalar, Bir Yönlü Varyans Analizi ve Tukey HSD testi kullanılmıştır.

Anahtar Kelimeler: Okul İklimi, Örgüt İklimi Etmenleri, Lise Öğretmenleri

ABSTRACT

Every educational organization has a climate that distinguishes it from other schools and influences behavior and feel of teachers and students for that school. Climate is the perceived subjective effects of the formal system, the informal style of managers, and other important environmental factors on the attitudes, beliefs, values and motivation of people who work in a particular organization and in a sense the personality of a school.

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This study examined the difference in the levels of the variables related to the school climate factors among the teachers teaching social science courses such as literature, foreign languages, sociology, psychology etc., the teachers teaching natural science courses such as maths, physics, biology etc. and the teachers teaching art, music and physical education. The data collected from a sample of 204 teachers from 9 urban schools serving general upper secondary education in the centre of Afyon and Usak cities in Turkey by means of the questionnaire developed by the researcher in fall and spring school semesters of 2001-2002. The questionnaire asked the participants to score the perceived school climate levels of the variables related to the organisational climate factors - organizational clarity and standards, autonomy, team commitment, member conflict, intimacy and support, risk, rewards - on the open-to-closed continuum. The data collected were analysed by Means and Analysis of Variance and Tukey HSD tests.

Key Words: School Climate, Organizational Climate Factors, and High School Teachers

Schools are social institutions¹. Within school organizations there are students, teachers, administrators, and many kinds of service personnel. Members of each of these groups occupy distinctive positions and are expected to behave in certain ways. The role expectations of these groups and norms ascribed to them are different from each other. Clearly, the relationships among many kinds of people in schools are varied and complex. Only if those relationships are understood and generally accepted can the school organization function effectively².

Schools are also hierarchical organizations. The board of education is usually placed at the top of the hierarchy, followed by superintendent, the principals and the teachers. In terms of the responsibility, students are responsible to teachers; principals are responsible to the superintendent, and the superintendent responsible to the board of education. Structurally, there is a series of superordinate-subordinate relationships within schools. Functionally, this hierarchy of relationships (principal to teacher, teacher to student, and so on) is the basis for allocating and integrating roles, personnel, and facilities to achieve school goals. Operationally, educational

¹ Getzels, J. W. and Guba E. G. *Social Behaviour and The Administrative Process*, Selected Readings on General Supervision, The Macmillan Company, London, 1970.

² Campell, R. F., Corbally J. E. and Nystrand R. O. *Introduction to Educational Administration*. USA: Allyn and Bacon ,Inc., 1983, p.8.

organizations are people intensive, for the process occurs person-to-person interaction³.

On the other hand, every educational organization has a climate that distinguishes it from other schools and influences behaviour and feel of teachers and students for that school⁴. Climate has been defined in various ways by authors as the perceived subjective effects of the formal system, the informal style of managers, and other important environmental factors on the attitudes, beliefs, values and motivation of people who work in a particular organization⁵; personality of an organization⁶; the atmosphere of the workplace, including a complex mixture of norms, values, expectations, policies, and procedures that influence individual and group patterns of behaviour⁷; and generalized perceptions that people employ in thinking about and describing the organizations in which they work⁸. As for schools, climate is a necessary link between organizational structure and teacher attitude and behaviour. It was founded that formal characteristics of schools had an important influence on the way in which teachers perceived climate⁹. Clearly, climate represents a composite of the meditating variables that intervene between the structure of an organization and the style and other characteristics of leaders and teacher performance and satisfaction¹⁰.

Numerous studies have been done on organizational school climate. For instance, Halpin finds that it is behaviour of elementary school principals, which in a large measure sets a climate tone for school¹¹. In a more direct investigation leader behaviour and organizational climate was founded that by varying the leadership style from bureaucratic to human relations and human resources, three different climates- closed; warm, supportive and friendly; supportive goal-oriented-, each with distinct

³ Sergiovanni T. S. and Robert J. Starratt. *Supervision: Human Perspectives*. New York: Mc Graw Hill., 1988, p.63.

⁴ Sergiovanni T. S. and Robert J. Starratt, *Ibid.*, p.69.

⁵ Litwin G. and Stringer R. *Motivation and Organizational Climate*. Boston: Harvard Business School Research Press., 1968, p.5.

⁶ Halpin, A. W. (1967). *Theory and Research in Administration*. New York: Macmillan., 1967, p.131.

⁷ Spencer L. M., Pelote V. and Seymour P. A Causal Model and Research Paradigm for Physicians as Leaders of Change. *New Medicine*, 2:57-64 Current Science Inc. ISSN 1089-2524, 1998, p. 57-64.

⁸ Hall D. T., Bowen D. D., Lewicki R. J. and Hall F. S. *Experiences in Management and Organizational Behavior*. USA: John Wiley & Sons., 1982, p.267.

⁹ George J. and Bishop L. Relationship of Organizational Structure and Teacher Personality Characteristics to Organizational Climate. *Administrative Science Quarterly*. Vol. 16, 1971, p.467-476.

¹⁰ Sergiovanni T. S. and Robert J. Starratt, *Ibid.*, p.63.

¹¹ Halpin, A. W., Croft D. B. *Organizational Climate of Schools*. Chicago: University of Chicago, Midwest Administration Center, 1963, p.131.

implications for member performance and satisfaction were created¹². The researches of David McClelland and colleagues at the Harvard Business School¹³ and Hay McBer and Company¹⁴, ongoing since the 1950s, indicate that successful leadership competencies and managerial styles produce motivating organizational climates, which arouse employee motivation to do work well, and which predict the desired organizational outcomes: exceptional customer satisfaction and financial performance. Thus, climate makes a difference. That is, it differentiates levels of performance among organizations. Hundreds of studies have demonstrated the link between organizational climate and bottom-line performance measures such as volume, efficiency, productivity, and customer perceptions of service quality. Typically, climate has accounted for 10 to 25 percent of the variance in performance measures. In many cases it has even been possible to predict significant improvements in performance based on climate improvements¹⁵.

Some instruments were developed to measure organizational climate. One of them is The Organizational Climate Description Questionnaire developed by Halpin and Croft, which examines eight dimensions of organizational climate four of which focuses on teacher behaviour-disengagement, hindrance, esprit and intimacy and four on the behaviour of the principle- aloofness, production, thrust, and consideration. Teachers' responding to the instrument reveals a school climate on the open-to-closed continuum¹⁶. The other instrument developed by Schneider and Bartlet is The Organizational Climate Questionnaire, which measures six dimensions-organizational support, member quality, openness, supervisory style, member conflict and member autonomy¹⁷. One another instrument identifies and describes six organizational climate dimensions- flexibility, responsibility, standards, rewards, clarity and team commitment- developed in the Harvard Business School research that predict organizational performance¹⁸.

In summary, the importance of organizational climate to school effectiveness is to a great degree. Climate is indicative of how well the organization is realizing its full potential. High-performance organizations tend to make optimal use of everyone's capabilities. An accurate assessment of the climate can identify the unnecessary obstacles to employees

¹² Litwin G. and Stringer R., *Ibid.*, p.5

¹³ Litwin G. and Stringer R., *Ibid.*, p.6.

¹⁴ Kelner S. R. and C, O'Connell K. *Managerial Style as a Behavioral Predictor of Organizational Climate*. Boston: Hay McBer., 1996.

¹⁵ Spencer L. M., Pelote V. and Seymour P. *Ibid.*, p. 57-64.

¹⁶ Halpin, A. W., Croft D. B. *Ibid.*, p. 131.

¹⁷ Hall D. T., Bowen D. D., Lewicki R. J. and Hall F. S., *Ibid.*, p.271.

¹⁸ Litwin G. and Stringer R. *Ibid.*, p.6.

contributing their best¹⁹. Thus, it is of vital importance for managers to measure organizational climate, which affect employees positively and negatively, in an organisational environment in order to create a climate so as to supply job satisfaction and in turn lead effectiveness in an organisation.

In recent years, many researchers have investigated the effect of climate in various organisations. This study examined the difference in the levels of the teachers' perception related to the organizational climate factors among the teachers teaching social courses such as literature, history, philosophy, foreign languages etc. and the teachers teaching natural science courses such as maths, physics, biology, etc. and teachers of art, music and physical education in general high schools. The aims of the study were to determine;

- The extend to which the teachers at the general high schools perceive organizational climate factors – organizational clarity and standards, autonomy, team commitment, member conflict, intimacy and support, risk, rewards - on the open-to-closed continuum.
- If the perception level in organizational climate factors acted differentially in teachers belonging to different teaching categories.

Method

The population and the sample

The data were collected from a sample of 204 teachers from 9 urban general high schools in the centre of Afyon and Usak cities in Turkey by means of the questionnaire developed by the researcher in fall and spring school semesters of 2001-2002. The sample consisted of 204 teachers (89 females and 115 males) in two cities in the west of Turkey. These cities selected because they have nearly the same amount of urban population. Four schools in Afyon city center and five in Usak city centre serving general upper secondary education were selected and finally nine schools with total 381 teachers (171 in Afyon and 210 in Usak) comprised the final sample. Usable surveys returned by 204 of 381 teachers to whom they were distributed, which yielded a total response rate of 53 %- response rates rated per city ranged from 54% for Afyon (93 out of 171), 55% for Usak (117 out of 210).

Measures

Personal Particulars

¹⁹ LDR-Organizational Climate Organizational *Climate Overview*.
www.ldrgroup.com/climateoverview.html, August 8th, 2002.

General high school teachers were asked to complete a personal particular form. This form inquired about teachers' teaching category.

Organizational Climate Questionnaire

The instrument was developed on through review of the literature. First, a list of 68 items was generated related to organizational climate and after consultation with experts on measurement and educational administration, the list were reviewed and items that were agreed to be highly similar were eliminated and those the uniqueness of which were disagreed were retained and thus the items were further reduced to 27 items that had high face validity. I first tested the instrument on a pilot group consisting of 98 candidate teachers who were graduate students in their final school semesters and who were enrolled part time in courses at high schools in the city of Usak in order to make the items understandable by the participants. From these, an instrument consisting of 27 Likert-type items was developed.

Multiple factor-analytic techniques were utilized in order to investigate the factor structure of the data. The first task of the factor analyses was to identify common factors underlying the large and apparently diverse collection of school climate. The questionnaire was factor analysed using the Principal Axis factor analysis method. The Kaiser- Meyer- Olkin statistic was .87, indicating sample size was appropriately large. Barlett's test of sphericity yielded a value of 8477 ($p < .00005$), suggesting correlations were substantial enough to justify factor analysis. The eigen values were 7.34, 1.69, 1.40, 1.38, 1.19, 1.14 and 1.04. After Principal Axis factor analysis with seven factors specified, the factors accounted for 56.7 of the variance (27.5%, 6.2%, 5.1%, 5.1, 4.4%, 4.2%, 3.8%). Finally, seven factors related with organizational climate of schools were obtained.

The questionnaire was, then, factor analysed using the principal component method with Equamax rotation. After rotation the eigen values were 2.67, 2.54, 2.10, 2.05, 2.01, 2.00 and 1.90 and the factors accounted for 56.7 of the variance (9.9%, 9.4%, 7.8%, 7.6, 7.4%, 7.4% and 7.0%). Items loading on **factor I** described organizational clarity and standards consisting of five items asking about clarity the authority in school, the level of bureaucracy, and in whose responsibility the tasks and projects are and the level of performance standards. Items loading on **factor II** defined support and intimacy consisting of five items asking about the level of warm and friendly relations and the level of trusts and helps from principals and colleagues in school. . Items loading on **factor III** defined team commitment consisting of four items asking about the level of commitment to school and working groups. Items loading on **factor IV** defined risk consisting of four items asking about the level of taking risks at the right time by principals and teachers. The **factor V** defined autonomy consisting of three items asking

about the level of taking responsibility in the accomplishment of tasks. The **factor VI** defined member conflict consisting of three items asking about the level of competition and expressing opinions freely. Finally, **the factor VII** defined rewards consisting of three items asking about the level of promotion system, positive encouragement by principals and the equilibrium of reward and performance.

The questionnaire was also submitted for validity and reliability tests. Alpha reliabilities for the items loading on seven factors were .82 for organizational clarity & standards, .66 for autonomy, .85 for team commitment, .79 for member conflict, .82 for intimacy & support, .68 for risk and .88 for rewards.

The reliability of the instrument was also tested using the test-retest method and the reliability of the each factor was determined using Pearson Product-Moment Correlation. Consequently, a general high school not included in the sample was chosen. The teachers were asked to take the instrument on a test-retest basis with a fortnight interval. Fifty teachers from this school completed the both tests.

The form used in the test-retest for reliability was the same as the instrument used in the study. However, the teachers did not fill out the personal data sections. The reliability for each organizational climate factor was found out: 'organizational clarity & standards' as $p = .8623$, 'autonomy' as $p = .7349$, 'team commitment' as $p = .8327$, 'member conflict' as $p = .8031$, 'intimacy & support' as $p = .8627$, 'risk' as $p = .7619$, and 'rewards' as $p = .8747$.

Finally, the questionnaire included 27 statements about seven organizational climate dimensions: organizational clarity & standards, autonomy, team commitment, member conflict, intimacy & support, risk, and rewards. Teachers answered each question on a five based point scale: 1 I definitely disagree, 2 I disagree, 3 I neither agree nor disagree, 4 I agree, 5 I definitely agree. In scoring the questionnaire, as all the questions were positive in the questionnaire, low score in each item indicated closed climate and high score open climate. Average scores for each seven dimensions indicated the degree of teachers' perception levels in these climate dimensions. In scoring the level of the perception of the teachers in organizational climate dimensions, **very closed** was indicated by the average score of 1.00 to 1.80, **closed** by 1.81 to 2.60, **medium** by 2.61 to 3.40, **open** by 3.41 to 4.20 and finally **very open** by 4.20 to 5.00. The level of significance for all tests was 0.05 levels.

Results

Results of this study are presented in the sections that follow, beginning with a description of teachers, average scores of teachers'

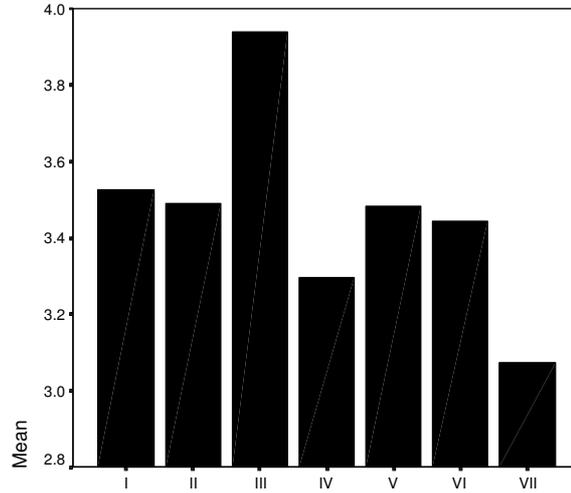
perception and climate score differences among teachers in different teaching categories. The statistical data collected from the teachers were analysed by Means and Analysis of Variance followed by Tukey HSD post hoc analysis.

The teachers from the 9 urban high schools serving general high education-upper secondary education- that constituted the sample were total 204 teachers 43,6% of whom were women and 56,4% men. As it can be expected, the teachers teaching social courses were in majority: the teachers teaching social courses were 51.0% of the sample, teachers teaching natural science courses were less in number with the percentage of 38,7% and those teaching art, music and physical education courses were the least in number with the percentage of 10.3. Most of the teachers who constituted the sample were married. The single teachers consisted only of 19,6% of the sample whereas the married teachers consisted of 80,4%.

Nine urban schools had a well-educated teacher force. As reported on their questionnaires, 17,6% of the teachers had less than bachelor's degree and 82,4% had a bachelor's degree 44.2 % of whom were graduates of faculties of education and 38.2 % of whom were graduates of faculties other than education faculties. The teachers in the sample were highly middle aged: 27,5% were under 30 years old; 15,7% between 31 and 35 years old ; 17,6% between 36 and 40 years old and 23.5% between 41 and 45 years old; 12,3% 46 and 50 and only 3.4 over 51 years old. On the other hand, the teachers in the sample were highly experienced: 20.1% had fewer than 5 years of experience; 23,5% had between 6 and 10 years, 14,2 had between 11 and 15 years, 20.1 % had between 16 and 20 years and the remaining 22,1 % had more than 20 years of experience.

Average Climate Scores of all Teachers

As it is shown in Chart I, all the teachers scored open climate in team commitment (3.93), organizational clarity and standards (3.52), support and intimacy (3.49), autonomy (3.48), member conflict (3.44); medium climate in risk (3.29) and in reward (3.07). They scored the highest open climate score in team commitment but the lowest in rewards.

Chart I**Average Climate Scores of all Teachers**

- I** Organizational
Clarity & Standards
- II** Support & Intimacy
- III** Team Commitment
- IV** Risk
- V** Autonomy
- VI** Member Conflict
- VII** Rewards

Climate Score Differences among Teachers in Different Teaching Categories

Climate scores among teachers according to teaching categories were analysed through one way of analysis of variance (ANOVA) followed by Tukey's HSD post hoc analyses. ANNOVAS showed that there was a significant difference in the climate scores in the organizational climate factors according to teaching categories of the teachers. Teachers teaching art, music and physical education courses scored higher open school climate than the teachers teaching social science courses in member conflict being 3.85 versus 3.41 and than the teachers teaching natural science courses versus 3.36. Likewise, teachers teaching art, music and physical education courses scored higher open school climate than the teachers teaching social

science courses in team commitment being 4.34 versus 3.87 and than the teachers teaching natural science courses versus 3.90. The results of Variance Analyses and Tukey's HSD post hoc analyses according to the teaching categories of the teachers in member conflict and team commitment are shown in Table I and Table II.

Table I: Analysis of Variance According to Teaching Categories

Climate Factors	Variance Sources	Sum of Squares	Df	Mean of Squares	F
Organizational Clarity & Standards	Between Groups	.119	2	0.050	.141
	Within Groups	84.778	201	.422	
	Total	84.897	203		
Autonomy	Between Groups	.293	2	.147	.301
	Within Groups	97.752	201	.486	
	Total	98.045	203		
Team Commitment	Between Groups	3.998	2	1.999	3.656*
	Within Groups	109.882	201	.547	
	Total	113.880	203		
Member Conflict	Between Groups	4.129	2	2.065	3.209*
	Within Groups	129.315	201	.643	
	Total	133.444	203		
Support & Intimacy	Between Groups	1.353	2	.676	1.027
	Within Groups	132.381	201	.659	
	Total	133.734	203		
Risk	Between Groups	2.680	2	1.340	2.162
	Within Groups	124.612	201	.620	
	Total	127.292	203		
Rewards	Between Groups	1.714	2	.857	.980
	Within Groups	175.738	201	.874	
	Total	177.453	203		

*p<.05

Table II. The Results of HSD Post Hoc Tests According to Teaching Categories

Teaching Categories	N	Member		Team	
		Conflict	F	Commitment	F
Social Courses	104	3.4167	3.209*	3.8782	3.656*
Science Courses	79	3.3671		3.9072	
Arts, Music and Physical Education	21	3.8571		4.3492	

*p<.05

Discussion

I assessed school climate through seven organizational climate factors and 27 items related to these seven factors. Results showed that all the teachers scored the highest open climate score in team commitment but the lowest in rewards. The reason why all the teachers scored the lowest open climate in rewards may be because teachers' financial problems have not been solved, yet. They have low and inadequate salary²⁰. Thus, this affects the school climate perceived by the teachers who are supposed to work with such a poor salary negatively and can also be a tremendous source of stress. The reason why all the teachers scored the highest open climate in team commitment may be parallel with the idea that school is an organisation where friendly relations in interpersonal relations should exist²¹.

Analysis of school climate scores in different sub groups -teaching categories- showed that, in many cases, teachers belonging to different sub groups experienced differential school climate. For instance; teachers teaching art, music and physical education courses scored higher open school climate in member conflict and in team commitment than the teachers teaching social science courses and natural science courses. This may be because the general high schools' aim is to prepare the children between 15 and 17 years old for the entrance exam to higher education²². The questions asked in this entrance exam are derived from social and natural science courses taught in these schools. Thus, the teachers teaching social courses and natural sciences are more overload and under press by the demands of students and their parents than the teachers teaching art, music and physical

²⁰ M.E.B. *Turkish Grand National Assembly annual report* . Ankara: Mesleki ve Teknik Acikogretim Okulu Matbaasi., 1997, p. 215-219.

²¹ Halphin, Ibid., p.131.

²² M.E.B. *National education early in 2002*. December, Ankara: IV Aksam Sanat Okulu Matbaasi.,2001, p.135.

education courses. This may affect the school climate perceived by teachers teaching art, music and physical education courses positively.

Suggestions

In helping teachers to work in a more desirable open school climate,

1. Principals and supervisors should use positive encouragements to teachers instead of threats and criticism,

2. Teachers' salary should be increased and consistent with their education level,

3. In order to improve the social relations, cooperation and intimacy among teachers, in addition to formal meetings, informal meetings should be organized by managers and group leaders of different teaching categories mutually.