

## The Need for Organizational Change in General High Schools: A Case Study in the Province of Kocaeli/Turkey

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**Abstract:** This research is aimed at assessing the need as perceived by teachers and administrating staff for organizational change in general high schools and whether there are meaningful differences between some personal and professional variables. A questionnaire form called “Need for Organizational Change” was used. T-test and variant analysis were used in the comparison of means of groups. The significant level was considered to be  $p < .05$ . According to the findings related to perception levels by the teachers and administrators working in general high schools of the need for organizational change, teachers realize the need for organizational change more than administrators. We found no significant difference between teachers and administrators in terms of the relation between their need of organizational change and their age, sex and the type of school they attended. However, there were significant differences in the need of teachers and the administrating staff for organizational change, according to the number of years in teaching

**Key words:** Change • organizational change • teaching staff • administrating staff • high school

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### INTRODUCTION

As in all organizations, change occurs in educational institutions as well. Organizations are under the influence of internal and external factors. They force the organizations to change. The organization itself can be a means of change; it can also be influenced by another organization.

According to Arthur [1], change is not an event, it is a process. Those who have just joined the organization, those who have left, the need for a new product, new markets, force organizations and administrations of organizations to change.

Huse [2] says that change is the sum of what happens in the individual, group or organization. He suggests that there are four different means of change. Some scholars consider the organizations as living things with certain traditions [3]. However, there are those who maintain that organization gives an individual a formation by taking an inexperienced individual, giving him a specialization oriented culture [4]. According to Stark [5], belief of the people that certain things might be better creates an expectation for change. As for Daft [6], emerging of a difference between the expected performance and present performance and the differing of the perceptions and expectations of internal and external

forces related to the organization determine the quality of change. Kast and his friend [7] consider technology as the base of change. We need to determine the need of change so that one can make sound decisions in assessing the need of change and in the effective and efficient running of the organization [8].

External pressure elements such as social powers and technology, internal pressure elements such as the goals of the staff, the need to reorganize, changes in the collaboration culture and the goals of the organization can be considered as basic forces [9]. A resistance against change in the organization is also an important problem. There may be such resistance due to habits, lack of time, unexpected events, peer pressure, private interests, misunderstandings and various assessments [10].

Change occurs passing through certain stages. According to Bumin [11], change process includes, unfreezing, moving and refreezing. Greiner [12] says that resistance of human nature against change is frequently observed. Therefore it takes a long time to get accustomed to change in organization [13].

Change is inevitable in education as it happens in other fields as well. A great many changes are being made in education in Turkey. Especially certain changes have become compulsory as a result of relations with EU.

In Turkey as of the 2004-2005 education years, 14.039.609 students attend 58.405 schools (primary and secondary). And in these schools 507.405 teachers and administrators are in service [14].

General high schools are in the secondary education category in Turkey. Secondary education includes all the general, vocational and technical educational institutions which teach for at least three years based on primary education. The goal of secondary education is to teach the students a minimum common culture, introduce individual and social issues, search their solutions and prepare the students for higher education, professional life and business world in accordance with their interests, talents and capabilities by helping them gain consciousness to contribute to the social, economic and cultural development of the country [15]. Most of the secondary schools belong to the state. Despite this fact most of the private schools are in secondary education. Ministry of Education has increased the duration of high schools to four years so as to provide diploma equality with EU countries and to improve the quality of education from 2005 - 2006 education years and on [16].

General high schools are in the secondary education category. General secondary education includes the education of 15-17 age groups of students and it lasts at least three years after primary education. Therefore the purpose of general high schools is to train the students so that they can get an average general culture at secondary education level, learn about the problems of the society and contribute to the economic, social and cultural development of the country and to prepare them for the higher education [15]. General secondary education is composed of general high schools, high schools with extensive foreign language class, Anatolian high schools, science high schools, Anatolian teacher training high schools, Anatolian fine arts high schools [15].

According to the data of Turkish Statistics Institution, there are 6.816 secondary education schools in Turkey as of the 2004-2005 education years. There are 167.617 teachers and 3.039.449 students in these schools. 64% of these students attend general high schools whereas 36% are in vocational and technical schools. 56% of the teachers work in general high schools while the rest 44% are in service in vocational and technical high schools. According to this data, in general high schools every teacher has 21 students approximately while in vocational and technical high schools, there are about 15 students per teacher.

The purpose of this research is to define the need for organizational change in general high schools according to the perception of the teachers and administrators, considering certain variables. To research the level of need for organizational change in general high schools is important and necessary because of the fact that they have a size bigger than half of secondary education stage and that their outcome is the main source influencing the higher education in terms of quantity and quality.

**Research problem:** Is there a significant difference between certain individual and professional variables and the need to organizational change according to perception of teachers and administrators working in general high schools?

**Sub-problems:** Does the need for organizational change in general high schools according to the perception of teachers and administrators differ because of:

- Status
- Sex
- Age group
- Service period as teacher
- The faculty or vocational college graduated from?

## MATERIALS AND METHODS

This research is in the descriptive-field research pattern based on scanning model. The use of the pattern concept has appeared together with the emergence of the question of how the data will be collected and the use of statistical approach in research [17-20].

**Scope and sampling:** The scope of the research is formed by the teachers and administrators working in the general high schools in the center of province of Kocaeli. The private schools were not taken into the scope. There were 8 general high schools in the center of province of Kocaeli in the education year 2004-2005 when the research was performed. Therefore, the scope of the research is formed by 344 teachers and administrators working in these 8 general high schools. 315 of them were teachers and 29 of them were administrators. All of the 8 schools were taken into sampling of the research. However 204 subjects, 118 of whom were teachers and 16 of whom were administrators were taken into sampling, which means that 60% of the subjects were taken into sampling. The questionnaire was applied with the approval of Kocaeli Branch of Ministry of Education.

**Data collection tools:** The questionnaire form of the need of organizational change in general high schools was used for the research. The questionnaire has been devised by Aliç (1990). The independent variables of questionnaire are individual and professional data such as status in the high school, sex, age, service period, the faculty or vocational college the subjects last graduated from. It consisted of 27 questions which were considered, might be influential on these variables.

The aim of the questionnaire is to define the need for organizational change in general high schools at 5 different dimensions. These dimensions are organizational structure, human relations, organizational goal, the technology used and relation between the organization and environment. There are 7 questions on the organizational structure, 5 on human relations, 6 on organizational goal, 6 on the technology used and 3 on organization and environment relations. The number of questions in each dimension is different. The choices of the questionnaire questions have been ordered as four degrees as done by Likert; never, little, moderate, a great deal. In the evaluation of the questionnaire, the choices were assigned points as follows; never was assigned 4 points, little 3, moderate 2 and a great deal 1 point. In this way the choices were transformed into “the organizational need for change”. Consequently, intervals related to “the need for organizational change” were determined as follows; ‘never’ is 27,00-47,24; ‘little’ is 47,25-67,49; ‘moderate’ is 67,50-87,74; and ‘a great deal’ is 87,75-108,00.

**Validity and Reliability:** The questionnaire was given to the teachers and administrators who are in service in general high schools. Their opinions and suggestions related with the validity and functionality of the measurement means in terms of producing solutions for the problem. Certain questions were reorganized according to these results. A pretest was given to 104 teachers to analyze structural validity of the questionnaire. As a result of factor analysis we adopted, we saw that common factor variances of the questions changed between 0.48 and 0.78. Total variance in the 5 dimensions detected was found to be 55.2 %. When we checked the article test correlation of the data, we found Cronbach Alpha ( $\alpha$ ) to be 0.86, and the split - half correlation to be 0.85. These figures are also consistent with those of Aliç [21] who found ( $\alpha=0.82$ ).

**Analysis of the Data:** T-test was used in the comparison of means of groups with two members and one-way

Table 1: Results of t-test related to perception by teachers and administrators of the need for organizational change according to their positions

Occupation	N	$\bar{x}$	Sd	Level of Importance	
				T	P
Teacher	188	67.38	9.62	2.15	0.03*
Administrator	16	62.12	5.98		

\*p<0.05; df=202

ANOVA analysis was used in the comparison of means of groups with members more than two. When we came across a significant difference, we found out between which groups there is a difference, by comparing point means of the groups with LSD test because the distribution of p<.05 groups was normal [18].

**Findings**

**Findings and comments related to the sub-problem 1:**

The means of the points received by the teachers and administrators in the measurement were compared by t-test in order to determine whether the need for organizational change according to the perceptions by teachers and administrators in general high schools shows a significant difference depending on the positions of teachers and administrators within the school. The results of t-test analysis are shown in Table 1.

As seen in Table 1 when the means of the points which teachers and administrators got in relation to the levels of perception they have for organizational change are examined, we see that both groups perceive such a need in the level ‘little’. However, we found out significant differences between them as a result of t-test. According to this we can say that teachers have a higher expectation for organizational change in general high schools than administrators. Our findings show a similarity with those of Aliç [21]. Because the administrators have the authority and the responsibility for administration of schools, this may cause them to be of the opinion that they fulfill the requirements of administration of schools. Consequently, their expectations for organizational change may be at a lower level than that of teachers. Administrators may also perceive the present situation more optimistically by identifying themselves as a part of the system.

**Findings and comments related to the sub-problem 2:**

The means of the points received by male and female subjects in the measurement were calculated and compared by t-test in order to determine whether the

Table 2: Results of the analysis of the t-test made in relation to the perception of the need for organizational change according to the sex of the teachers and administrators

Sex	N	$\bar{x}$	Sd	Level of Importance	
				t	P
Female	91	67.68	8.99	1.01	0.31
Male	112	66.33	9.87		

\*p<.05;df=201

Table 3: Means related to levels of perception of the need for organizational change according to age groups of teachers and administrators

Duration of Service	N	$\bar{x}$	Sd
22-29 age	57	65.17	10.15
30-37 age	74	68.09	8.93
38-45 age	54	68.06	9.30
46 and older	19	64.94	9.56
Total	204	66.98	9.48

need for organizational change according to the perceptions by teachers and administrators in general high schools shows a significant difference depending on their sexes. The results of t-test analysis applied in relation to the perceptions by teachers and administrators of the need for organizational change according to their sexes are shown in Table 2.

As seen in Table 2, when the means of the points the female and male subjects got in relation to the levels of their perception of the need for organizational change are examined, we see that females perceive the need for organizational change at 'moderate' level, while male teachers perceive it at 'little' level. However, as a result of the t-test which was applied, the difference  $p < 0.05$  between them was not found to be significant as p value was 0.31.

**Findings and comments related to the sub-problem 3:**

Variance analysis was applied on the means of the points received by teachers and administrators in relation to age groups, in order to determine whether the need for organizational change according to the perceptions by teachers and administrators in general high schools show a significant difference depending on age groups. The means related to levels of perception of the need for organizational change according to age groups of teachers and administrators are given in Table 3.

As seen in Table 3, the age groups 22-29 and 46 and older perceive the need for organizational change at 'little' level. As for the age groups 30-37 and 38-45, they perceive it at 'moderate' level. A variance analysis was

Table 4: The results of variance analysis related to perception of the need for organizational change according to age-groups of teachers and administrators

Source of Variance	df	Sum of Squares	Mean Square	F	P
Between Groups	3	418.51	139.50	1.56	0.19
Within Groups	200	17846.36	89.23		
Total	203	18264.87			

\*p<0.05

Table 5: Means of levels of perception by the teachers and administrators of the need for organizational change according to their periods in service

Service Duration	N	$\bar{x}$	Sd
0-8 years	89	65.99	9.68
9-16 years	62	69.59	9.27
17-24 years	34	67.12	8.49
25 years and longer	19	62.79	9.27
Total	204	66.98	9.48

applied so as to find out whether there is a significant difference between the levels of perception of the need for organizational change according to age groups of teachers and administrators. The results of this analysis are seen in Table 4.

As seen in Table 4, as a result of variance analysis made to find out whether there is a significant difference between their level of perception of the need for organizational change according to age groups of teachers and administrators in general high schools, we found  $F=1.56$ ;  $P=0.19$  ( $p > 0.05$ ). According to these results, we didn't find a significant difference in the perceptions by the teachers and administrators, of the need for organizational change according to age groups. Hence, age groups of teachers and administrators do not lead to a significant differentiation in their perceptions of the need for organizational change. In other words age group of teachers and administrators in general high schools is not a variable of the need for organizational change.

**Findings and comments related to the sub-problem 4:**

A variance analysis was applied on the means of the points received by teachers and administrators in relation to their groups of period in service, in order to determine whether the need for organizational change according to the perceptions by teachers and administrators in general high schools, shows a significant difference depending on their periods in service in the teaching profession. The means in relation to the levels of perception by the teachers and administrators of the need for organizational change are given in Table 5,

Table 6: The results of variance analysis related to the perception by teachers and administrators of the need for organizational change according to their periods in service

Source of Variance	df	Sum of Squares	Mean Square	F	P
Between Groups	3	846.28	282.09	3.24	0.02*
Within Groups	200	17418.59	87.09		
Total	203	18264.87			

\*p<0.05

Table 7: Results of the LSD test related to differences between the levels of perception by the teachers and administrators of the need for organizational change according to their periods in service

Service Period	4 <sup>th</sup> Group				
Groups	⊗	25 years and longer	1 <sup>st</sup> Group 0-8 years	3 <sup>rd</sup> Group 17-24 years	2 <sup>nd</sup> Group 9-16 years
4 <sup>th</sup> Group 25 years and longer		62.79			
1 <sup>st</sup> Group 0-8 years		65.99 *			
3 <sup>rd</sup> Group 17-24 years		67.11			
2 <sup>nd</sup> Group 9-16 years		69.60 **	*		

\*p<0.05; \*\*p<0.01

Table 8: Means related to the levels of perception by the teachers and administrators, of the need for organizational change according to the faculty or vocational college they graduated from

The Faculty or High School They Graduated from	N	⊗	Sd
Faculty of education	87	67.40	9.47
Faculty of science and letters	85	67.30	9.23
Others	32	64.94	10.17
Total	204	66.98	9.48

according to their periods in service in the teaching profession.

As seen in Table 5, when the means related to the levels of perception, of the need for the organizational change teachers and administrators have, according to their period of service in the teaching profession are examined, we see that teachers and administrators whose service period are 0-8 and 9-16 perceive the need for change at ‘moderate’ level, while those whose service periods are 17-24 years and 25 years and longer, perceive it at ‘little’ level. Thus teachers and administrators perceive the need for organizational change increasingly in the first 15 years during their service. After 16 years, their levels of perception tend to decrease.

A variance analysis was applied in order to find out whether there is a significant difference between the means according to the groups of period in service related to the levels of perception of the need by teachers and administrators in general high schools, for organizational change in general high schools. Variance analysis results related to the perception of the need by teachers and

administrators for organizational change according to their period in service groups are given in Table 6.

As seen in Table 6, as a result of variance analysis made to survey whether there is a meaningful difference between means related to levels of perception teachers and administrators working in general high schools have of the need for organizational change, depending on their period of service in the profession, we found F=3,24; P=.02 (p<.05). According to these findings we see that there is a significant difference among teachers and administrators between their levels of perception of the need for organizational change depending on their periods of service in the profession. LSD test, which was applied to find out among which of the groups, formed related to the periods in service of teachers and administrators, the difference between means exists, can be seen in Table 7.

As seen in Table 7 as a result of the test, we see that according to their service periods in the profession, there is a significant difference between the perception levels of the need for organizational change by teachers and administrators that are in the 2<sup>nd</sup> (9-16 years), the 1<sup>st</sup> (0-8 years) groups and those in the 4<sup>th</sup>(25 years and longer) group and between those in the 1<sup>st</sup> and those in the 4<sup>th</sup> groups. According to these findings, teachers and administrators in the 2<sup>nd</sup> group who have been in service for 9-16 years perceive the need for organizational change the most while those whose service period is 25 years and longer feel it the least. Level of knowledge and experience in teaching and administration is incomplete in the first 8 years of the profession. We can say that the more this incompleteness is overcome, the more the need for organizational change increases. Therefore we can say that teachers and administrators feel the need for organizational change more when they have experience of 9-16 years, they feel it less between 17-25 years of professional experience and they perceive it the least after 25 years of professional experience.

**Findings and comments related to the sub-problem 5:** A variance analysis was applied on the means of the points received by the teachers and administrators according to faculty groups they graduated from, in order to determine whether the need for organizational change perceived by general high school teachers and administrators, differs significantly according to the faculty or vocational college they graduated from. Means related to the perception of the need by teachers and administrators for organizational change according to the faculty or vocational college they graduated from, are given in Table 8.

Table 9: Results of the variance analysis related to the perception by teachers and administrators of the need for organizational change according to the faculty or vocational college they graduated from

Source of Variance	df	Sum of Squares	Mean Square	F	P
Between Groups	2	158.03	79.01	0.87	0.41
Within Groups	201	18106.84	90.08		
Total	202	18264.87			

\*p<0.05

As seen in Table 8, when the means related to the levels of perception of the need by teachers and administrators in general high schools for organizational change according to the faculty or vocational college they graduated from, are examined, we see that all the groups feel the need for organizational change at 'little' level.

The results of the variance analysis made to find out whether is a significant difference between the means in the levels of perception of the need by teachers and administrators for organizational change according to the faculty or vocational college they graduated from are given in Table 9.

As seen in Table 9, it has been found that there is not a significant difference between means related to levels of perception by teachers and administrators working in general high schools, of the need for organizational change, depending on the groups of faculty or vocational college they graduated from (F=87; P=0.41). We can say that the faculties and vocational college's teachers and administrators graduated from do not cause a difference in their perception of the need for organizational change.

## DISCUSSION AND CONCLUSIONS

According to the findings determined in relation to the levels of perception by teachers and administrators in general high schools, of the need for organizational change, teachers feel such a need more than the administrators. Since the teachers are younger and less experienced, they are aware of knowledge and the change. As for the administrators, they may tend to maintain the present structure. Teachers may criticize the present situation since they are generally newly graduated and they are inexperienced in practice or they may be disturbed by the present structure as they are equipped with reformist knowledge. Teachers may turn roles and expectations related to change into their basic functions. However administrators may consider giving priority to maintaining the present situation as their

principal functions, because every change will bring a new administrative load. Although teachers perceive the benefits of change, they may not perceive the problems the change will cause as much as the administrators do. As administrators are authorized and responsible for the administration of the school while and teachers do not have such authority and responsibility, teachers may be feeling the need for organizational change more than the administrators.

Female teachers perceive the need for organizational change at 'moderate' level while males feel it at 'little' level, but we could not find a significant difference between them. Therefore we can say that sex is not a variable of the need for organizational change.

Teachers and administrators in all age-groups state that they need organizational change at 'moderate' level. However we could not see a meaningful difference between age groups. Therefore we can say that age is not a variable of the need for organizational change.

Teachers and administrators whose periods of service are 0-8 years and 9-16 years, feel the need for organizational change at 'moderate' level, those whose period of service is 17-24 years and 25 years and longer feel it at 'little' level. Teachers and administrators with periods of service for 0-8 years and 9-16 years feel the need of organizational change more than the teachers with duration of service for 25 years and longer. Teachers and administrators who have service period for 9-16 years feel the need for organizational change at a higher level than those whose period of service is 0-8 years. This situation indicates that the need for organizational change decreases after the 16<sup>th</sup> year of service. The lack of knowledge and experience of the teachers and administrators in the first years of service decreases with experience gained in the following years. After 25 years of service, teachers and administrators begin to be indifferent to the change and renovation and tend to preserve the present structure.

The levels of perception by teachers and administrators of the need for organizational change do not differ according to the faculty or vocational college they graduated from. Therefore, we can say that the faculty or vocational college they graduated from is not a variable of the need for organizational change. However, the teachers who graduated from faculty of education, faculty of science and letters and other faculties feel the need for organizational change at 'little' level.

When considered as a whole, we see that there is a 'moderate' level of need for organizational change in

general high schools. Meeting this need for change may lead to more comfortable conditions, better teaching and training activities, creation of opportunities for administrators to perform their administrative plans effectively. Therefore, leadership training should be given to the administrators working in general high schools along with in-service training to be given to the teachers and administrators about the necessity of organizational change and the probable results it will bring about. Also duties and responsibilities related to their field should be given to the teachers and administrators with long periods of service and thus they should be helped to support the organizational change. By giving in-service seminars to the teachers and administrators about new developments in the subjects of education technology, measurement and assessment, development and learning psychology, classroom administration, education programs, learning and teaching methods, structure and functioning of the education system and comparative education, it must be seen to it that the needs for change both in their fields and also within and out of the organization are met.

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