Organizational Learning: Perceptions of Teachers' in Turkey

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Abstract

The aim of this research is to investigate primary school teacher's organizational learning experiences and their thoughts about these experiences. In order to realize this aim, educational practices, supportive leadership, communication and education technology, information sharing and cooperation dimensions of organizational learning are analyzed in terms of teachers' perceptions. When we evaluate research findings, teachers' perceptions about organizational learning differ meaningfully according to the teacher's age and their tenure of office. It can be asserted that we can develop schools' organizational learning ability only if we create systems which make easy and support managers', teachers', students', parents' and other education workers' learning course. The results of this study showed that teachers' perceptions about organizational learning differ according to managers' use of managerial power in change applications, teacher's liability to the team work and whether technological advancements is followed or not. The findings of the research also sign the importance of collective learning and application in order to realize organizational learning. When we look at the research findings, it can be asserted that motivating individuals in schools to work and learn collaboratively and to follow technological advancements about education can be effective in transforming schools to learning organizations.

Key Words: Organizational learning, primary school, teacher, school manager

Introduction

The necessity of transformation of our schools to learning organizations is inevitable and irreversible in the rapidly changing and developing process in order to reach developed civilization level and to catch up the modern age. Today social and political developments, technological innovations and developing possibilities of access to information force educational organizations to change and development like other organizations. It is not possible to catch up this course by teaching via dictating, ordering or practices which do not reflect opinions of everyone from bottom to top. Twenty firstcentury prefers learning

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organization structure in which individuals renewed themselves continuously, human resources are developed, humans are appreciated and opportunities are presented for individuals to show their creativity to classical organization structure. The ones who resist this change and development process lose their efficiency or don't survive.

One of the most important developments about organization approaches in recent years is that mechanical organization approach (thinking organization like a machine) was discarded and organizations are thought like living organisms. According to this approach, organizations are living systems that live in a broad environment they are dependent to meet various needs. Certain organization types orient themselves to certain environment conditions as in the example of polar bears which live in polar region, camels which live in deserts and crocodiles which live in swamps (Morgan, 1998). Organizations change their behavior types according to the changing conditions like other living organisms, that is organizations develop their learning capacity, that is to say it is emphasized that organizations have learning capacity like living organisms (Güçlü, 1999). We can mention learning organization about only if we stop thinking organizations like a machine. Machines don't have learning capacity. Learning occurs among people.

The keystone of the learning organization is a learning individual. The one who will create learning teams and finally learning organization is the learning individual (Bozkurt, 2000, 43). Senge (2003) states that learning organizations learn by means of learning individuals, but individual learning doesn't guarantee organization's learning and organizational learning doesn't occur without individual learning.

Today, how the organization learn from the past experiences and individuals in order not to repeat mistakes by the use of knowledge-abilities with full capacity which organization and individuals have is more important than by the use of machines with full capacity which organization has. For this reason, organizational studies tended to adopt the opinion which means that the capacity of the organization can be redounded with the total learning struggle and the idea of learning organizations came out (Addleson, 1991). In this context, as educational organizations are human centered organizations, organizational learning notion has another importance for these organizations.

Theoretical Framework

Learning organization approach which has been on the agenda gain more and more importance since the last quarter of the twentieth century was mentioned for the first time in the studies of Argryis and Schön (1978) and this approach was analyzed in detail and systematically in Peter Senge's book of "Fifth Discipline" which was published in 1990. Argyris and Schon (1978) defined organizational learning as a process of individual and collective inquiry that modifies or constructs organizational theories-in-use. Learning organization notion is based on the system thinking. The system thinking which was characterized as a fifth discipline evaluates management as a whole which differentiated pieces influence each other constantly and which includes more than the total of these pieces (Senge, 2003).

Organizational learning is the process by which the firm develops new knowledge and insights from the common experiences of people in the organization, and has the potential to influence behaviors and improve the firm's capabilities (Jimenez and Valle, 2011). Senge (1990) characterized the learning organization as one where "people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together" (p. 3). Furthermore, he claimed the learning organization is "continually expanding its capacity to create its future" (p.14). When we mention about organizational learning, we understand "an atmosphere where individuals redound their capacities constantly, where new ideas are fostered, where common dreams are discussed freely and where learning together are practiced all the time" (Güçlü and Türkoğlu, 2003).

However learning organizations and organizational learning notions are often used one another's place, the basic difference between them is that organizational learning defines some facilities about learning in an organization; learning organization is used to define managements (like Motorola, 3M, Mercedes Benz, Hewlett-Packard) which carry on learning facilities successfully and which can transform new information to new behavior patterns. In other words, organizational learning is a facility which is in learning

organizations. In 1980s and 1990s, learning organizations notion was generally preferred, but as managements who succeeded in being learning organizations were limited, organizational learning notion is started to be used much more (Bayraktaroğlu and Kutanis, 2003).

When we look at the definition of learning before organizational learning, Eren (2001) defines learning as a process of transforming human beliefs, values, attitude and behaviors with the information gained from theoretical thoughts, practice and experiences. Defining organizational learning requires two-way thinking which includes individual and organizational dimension; because, for an organization to develop, learning processes must exist in that organization primarily. Organizational learning must be perceived as the change and expansion of information and value systems in an organization, improving problem-solving and action capacities of the organization and the change of personnel's common reference environment (Düren, 2002). A collective effort which all the personnel participate in the process is a key of organizational learning.

Organizational learning is a collective process as it is based on collective experiences and joint decisions which represent majority (Düren, 2002). Learning organization notion can be thought to state about organizations' working like a collective intelligence. In this approach, organization is designed as a living organism and the transformation of individual learning to organizational learning is desired (Özden, 1998). There is a collective learning in learning organizations. The learning capacity of these organizations is very high. Orientation of organizations to change depends on their learning capacity. Learning organizations that learns to solve problems the speed of the change brought out are organizations that will shape the world of the future. In the practical world of schools and school systems, organizational learning provides a sustainable avenue for change and an opportunity for continuous renewal from within. In sum, schools can examine and exploit what they have already learned, as well as innovating, solving problems, and learning strategies and knowledge to meet new challenges (Collenson, Cook ve Conley, 2006). Schools that function as learning organizations in a context of rapid global change are those that have systems and structures in place that enable staff at all levels to

collaboratively and continuously learn and put new learnings to use. This capacity for collaborative learning defines the process of organizational learning in schools (Silins, Mulford and Zalins, 2002).

Hipp and Huffman (2003) explain professional learning organizations with five basic dimensions:

1. Shared and supportive leadership: This dimension, can be explained with three critical attributes: Nurturing leadership among staff; shared power, authority and responsibility; and last of all, broad-based decision-making for commitment and accountability (Hipp and Huffman, 2003). This dimension affects all the others as it serves to guide the creation and delivery of the school's important decisions. It addresses whether the principal is the sole leader, or whether teacher leadership is in place, thus determining how decisions are made and carried out. In order to create professional learning organizations, School administrators must participate democratically with teachers by sharing power, authority, and decision-making, and promoting and nurturing leadership among staff.

2. Shared values and vision: A culture where members of the organization possess shared values and visions was also identified as being a hallmark of the organizational learning. The various members of the learning organization need to have a shared vision so that they are learning and moving in the same direction (Donna and Thompson, 2004). In a school district, the most important goals are those dealing with student learning (Brandt 2003). This dimension includes four critical attributes: espoused values and norms; focus on students, high expectations; and shared vision guides teaching and learning. In professional learning organizations staff shares visions for school improvement that have an undeviating focus on student learning. Shared values also support norms of behavior that guide decisions about teaching and learning.

3. Collective learning and application: Collective learning and application dimension includes five critical attributes: shared information and dialogue; collaboration and problem solving; and application of knowledge, skills, and strategies. As teachers share information and develop processes whereby they can work collaboratively, they become

more successful in applying strategies that work well for students. In professional learning organizations, staff at all levels of the organization search, find knowledge, skills and strategies and share. They also apply this new learning to their work.

4. Shared personal practice: The third and fourth dimensions are closely interrelated. In shared personal practice dimension, the process in third dimension is developed. This is possible by allowing and encouraging teachers to interact, provide feedback, and share results of student learning experiences. The critical attributes in this dimension include: observation and encouragement; shared outcomes of new practice and provide feedback; and analysis of student work and related practices.

5. Supportive conditions and relationships-structures: The fifth dimension, supportive conditions (relationships-structures) impacted all the earlier dimensions. The critical attributes fall into two categories, collegial relationships and structures. Collegial relationships include five critical attributes: caring relationships; trust and respect, recognition and celebration; risk taking and a unified effort to embed change. Structures include three critical attributes: resources; facilities; and communication.

Leaders of schools, like leaders of businesses and hospitals, want their organizations to be flexible and responsive, able to change in accord with changing circumstances (Brandt, 2003). However, if educators are serious about the business of educating children schools must be transformed into learning organizations in which everyone is a learner (Bamburg, 1997). So it should be remembered that individuals learn best when the content is meaningful to them and they have opportunities for social interaction and the environment supports the learning (Brandt, 2003).

The Aim of the Research

The main purpose of this study is to investigate primary school teacher's organizational learning experiences and their thoughts about these experiences. In order to realize this aim, educational practices, supportive leadership, communication and education technology, information sharing and cooperation dimensions of organizational learning are

analyzed in terms of teachers' perceptions. Consequently, this study addressed the following research questions;

1) What are the teachers' perceptions about organizational learning in their schools?

2) Do teachers' perceptions about organizational learning in their schools show a meaningful difference according to;

    a) Teachers' tenure of office,

    b) Age,

    c) School principals' use of position power,

    d) Teachers' opinions about following innovations related with educational technology,

    e) Teachers' liability to team work?

Method

Participants

The sample of this study was 200 primary school teachers working in Kocaeli. Teachers were selected randomly from 10 primary school in Kocaeli/İzmit. The questionnaire was administered by researchers in the middle of the 2008-2009 education year. The teachers were told that the purpose of the study was to find out what they think about their schools' activities as a learning organization. They were given the assurance that their answers would remain confidential. 200 questionnaires were delivered to the teachers and 162 questionnaires were used in data analysis. 36,2% of the teachers were 31-40 ages and 3,7% were 51-60 ages. The split between genders was almost equal, with 53,45% female and 46,6% male. In terms of tenure, 30% of the respondents had more than 5 years of experience as an educator. Only 3,1% were in their first year of teaching.

Data Collection

The purpose of this study is to evaluate teachers' perceptions about the organizational learning experiences. For this purpose, on the basis of literature review, "Learning organization assessment scale" was developed by researchers. During the process of developing scale, by analyzing literature and reforming "Professional Learning Community Assessment Scale" which is developed by Hipp and Huffman (2003) and which is composed of five dimensions (shared and supportive leadership behaviors, shared vision and values, collective learning and application, shared personal practices and supportive conditions). A question pool which includes *51 items* was formed with the advices of specialists.

Pilot study was done primarily on 90 teachers for the reliability and validity analysis. In order to test whether "*Learning Organization Assessment Scale*" pretest results are suitable for factor analysis or not. Kaiser-Meyer-Olkin (KMO) sample efficiency test and Barlett test were carried out and as KMO value was above 0,50 and Barlett test was meaningful (0,05 importance degree) data set was found suitable to the factor analysis (KMO=0,922, $\chi 2$ Barlett test (528)= 4854,09 , p=0,000). Five-point Likert type survey ranging from 1 (strogly disagree) to 5 (strogly agree) has been used for the purpose of measuring teachers' perceptions regarding organizational learning. According to the result of the factor analysis of this survey, it was seen that eigen value of 33 items was classified under 4 factors which are bigger than 1.

It was determined that the first of the these factors explains 25,3% of the variance, the second factor explains 17,2% of the variance, the third factor explains 10,3% and the fourth explains 9,2% of the variance. It was determined that four factors explain 62% of the variance. Considering the contents of the questions in factors, dimensions were entitled as educational practices, supportive leadership, communication and educational technologies, information sharing and cooperation.

Data Analysis and Evaluation

"Organization Learning Assessment Scale" was delivered by researchers to 200 teachers who were on duty in 10 primary schools in order to determine the perceptions of teachers about organizational learning. 180 questionnaires returned and 162 questionnaires from these were used in data analysis. The research data is analyzed in SPSS statistic program. Means, standard deviations, Cronbach's alpha values and factor loadings are shown in Table 1.

Table 1. Organizational learning scale factor analysis results

		Factor Loading	Means	Std. Dev.
Instructional Practices	35) Teachers informally share ideas and suggestions for improving student learning.	,767		
	34) Teachers provide feedback to peers related to instructional practices.	,726		
	15) Teachers consider shared sense of values at school while they determine decisions about learning and teaching.	,718		
	25) Teachers work together to seek knowledge, skills and strategies and apply this new learning to their work.	,713		
	26) Collegial relationships among teachers have a supportive quality for school improvement efforts.	,702	3,98	,68
	27) Teachers struggle together in order to answer diverse student needs.	,696		
	22) Teachers take an active role to increase student achievement in the process of goal determination.	,675		
	32) Teachers in our school are committed to programs that enhance learning.	,674		
	16) Teachers cooperate to determine shared goals (vision) about the future of the school.	,668		
	Cronbach's Alpha	,83		
	Variance Explained	%25,3		
Supportive Leadership	23) School managements take an active role to increase student achievement in the process of goal determination.	,422		
	5) Our principal prepares a suitable environment to initiate change.	,784		
	2) Our principal cooperates with teachers while giving decisions.	,778		
	8) Our principal supports teachers' struggles that focus on school goals.	,774		
	4) Our principal show a supportive leadership behavior in areas where teachers need support.	,770	3,87	,89
	6) Our principal rewards for innovative actions.	,717		
	14) Our principal considers shared sense of values at school while they determine decisions about learning and teaching.	,643		
	18) Our principal cooperates in order to create a shared vision at school.	,622		
	1) Teachers conform ethical values of decision-making process about school.	,553		
	Cronbach's Alpha	,80		
	Variance Explained	%17,2		

Table 1 Organizational learning scale factor analysis results

	Factor Loading	Means	Std. Dev.
Communication and Education			
3) Teachers can reach information they need.	,782		
50) Communication systems in our school promote a flow of information among teachers.	,760		
48) The school facility is clean and attractive.	,727		
51) Communication systems in our school promote a flow of information among school management, teachers and students.	,701		
47) The support and expertise is given by school management for teachers and managers' continuous learning by the agency of seminars, conferences and panels.	,696	3,83	,78
46) Appropriate technology and instructional materials are available for teachers.	,659		
49) The proximity of grade level and department personnel allows for ease in collaborating with colleagues.	,629		
45) Our principal struggles for fiscal resources for Professional development of teachers.	,555		
44) The school schedule promotes collective learning and shared practice.	,493		
Cronbach's Alpha	,93		
Variance Explained	%10,3		
Information Sharing and Cooperation			
9) Decision-making takes place through committees and collaboration among teachers, students, principals and parents across grade and subject areas.	,672		
41) Outstanding achievement is recognized and celebrated regularly in our school.	,633		
43) Time is provided for teachers to facilitate collaborative work.	,593		
42) School staff and managers exhibit a sustained and unified effort to embed change into the culture of the school.	,556	3,96	,77
20) The school management gives importance to students' exact learning instead of school grades.	,505		
10) Teachers assume shared responsibility for student learning without evidence of imposed power and authority.	,463		
Cronbach's Alpha	,88		
Variance Explained	% 9,2		

Results

The teachers within the research stated that 43,6% of them was able to reach the information at school they need, 65,6% of them stated that reformist practices were awarded by the principal, 76,7% of them stated that the achievements in the school were noticed and awarded.

At the same time; 73% of the teachers stated that whether decisions get along with the school's vision and values or not is noticed during decision giving process, 81,6% of them stated that teachers cooperate among themselves to determine the common goals about school's future, 66% of them stated that instructional and social activities at school were

put into order according to school's vision. 74% of the teachers within the research thought their school as a learning organization and 58,3% of the teachers stated that technological innovations related with education were followed closely. However, 58,3% of the teachers stated that teachers' colleagues at schools were inclined to the team work.

Teachers' Perceptions about Organizational Learning

ANOVA-test was done in order to determine whether teachers' perceptions about organizational learning in their schools show a meaningful difference or not according to their tenure of office. ANOVA-test results according to participants' tenure of office in their schools are shown in Table 2 in terms of Organizational Learning Assessment Scale dimensions.

Table 2 ANOVA results for organizational learning according to participants' tenure of office in their schools

Dimension		Sum of Squares	df	Mean Square	F	p	Meaningful Difference
Instructional Practices	Between groups	,707	4	,177	,372	,828	-
	Within groups	74,942	158	,474			
	Total	75,649	162				
Supportive Leadership	Between groups	9,625	4	2,406	3,130	,016	6-10 years, 1-5 years
	Within groups	121,483	158	,769			
	Total	131,108	162				
Communication and Education Technology	Between groups	2,737	4	,684	1,107	,355	-
	Within groups	97,691	158	,618			
	Total	100,428	162				
Information Sharing and Cooperation	Between groups	1,212	4	,303	,501	,735	-
	Within groups	95,496	158	,604			
	Total	96,708	162				

It is determined that teachers' perceptions about supportive leadership dimension show a meaningful difference according to their tenure of office [F (4-158) = 3,130, p<.05]. Thereby, teacher opinions about whether principals show supportive leadership behavior or not

and principals support organizational learning in their schools or not change according to their tenure of office. Scheffe test was done in order to determine the groups which have a meaningful difference between them. According to Scheffe test, it is determined that the mean of teachers who have 6-10 years of tenure of office ($\overline{X}$ = 4.3) is higher than the mean of teachers who have 1-5 years of tenure of office ($\overline{X}$ = 3.681).

ANOVA-test results according to participants' ages in their schools are shown in Table 3 in terms of Organizational Learning Assessment Scale dimensions.

Table 3 ANOVA results for organizational learning according to participants' ages

Dimension		Sum of Squares	Sd	Mean Square	F	p	Meaningful Difference
Instructional Practices	Between groups	6,296	3	2,099			
	Within groups	69,353	159	,436	4,812	,003	31-40, 51-60 ages – 20-30 ages
	Total	75,649	162				
Supportive Leadership	Between groups	8,715	3	2,905			
	Within groups	122,393	159	,770	3,774	,012	31-40 ages – 20-30 ages
	Total	131,108	162				
Communication and Education Technology	Between groups	3,542	3	1,181			
	Within groups	96,886	159	,609	1,938	,126	-
	Total	100,428	162				
Information Sharing and Cooperation	Between groups	10,871	3	3,624			
	Within groups	85,837	159	,540	6,712	,000	51-60 ages – 20-30 ages
	Total	96,708	162				

According to the results of the analysis, teachers' perceptions about instructional practices dimension show a meaningful difference according to their ages [F (3-159)= 4,812, p<.01]. This finding shows that the teachers' perceptions about instructional practices change according to teachers' ages. Scheffe test was done in order to determine the groups which have a meaningful difference between them. According to Scheffe test, it is determined that the teachers at 31-40 ($\overline{X}$ =4.19) and 51-60 ages ($\overline{X}$ =4.4) stated more positive opinion than the teachers at 20-30 ages ($\overline{X}$ =3.74).

The Analysis of the Variance showed that teachers' perceptions about supportive leadership dimension show a meaningful difference according to their ages [F(3-159)= 3,774, p<.05]. Thereby, teacher opinions about whether principals show supportive leadership behavior or not and principals support organizational learning in their schools or not change according to their ages. Scheffe test was done in order to determine the groups which have a meaningful difference between them. According to Scheffe test, it is determined that the teachers at 31-40 ages ($\overline{X}$=4.15) stated more positive opinion about supportive leadership dimension of organizational learning than the teachers at 20-30 ages ($\overline{X}$=3,75).

According to the research findings, teachers' perceptions about information sharing and cooperation dimension show a meaningful difference according to their ages [F(3-159)= 6,712, p<.01]. Thereby, teacher opinions about whether information sharing and cooperation exist in organizational learning environment in their schools change according to their ages. According to Scheffe test, it is determined that the teachers at 51-60 ages ($\overline{X}$=4,38) stated more positive opinion about information sharing and cooperation dimension of organizational learning than the teachers at 20-30 ages ($\overline{X}$=3,77).

Finally, it can be asserted that teachers' perceptions about organizational learning in their schools show a meaningful difference according to their ages and the more they get older, the more they state a positive opinion about organizational learning environment. But it mustn't be disregarded that this finding may stem from the fact that young teachers' expectations are higher than the others. As a matter of fact; according to the ANOVA test results related with teachers' tenure of office, there is only a meaningful difference in terms of supportive leadership dimension; there is no meaningful difference in other dimensions. T-test was done in order to determine whether teachers' perceptions about organizational learning in their schools show a meaningful difference or not according to principals' use of position power. ANOVA-test results according to principals' use of position power are shown in Table 4 in terms of Organizational Learning Assessment Scale dimensions.

Table 4 ANOVA-test results for organizational learning according to principals' use of their position power

Dimension	Use of position power	n	Mean	Std. Dev.	df	t	p
Instructional Practices	Yes	100	4,08	,65	158	0,989	,324
	No	60	3,39	,60			
Supportive Leadership	Yes	100	3,97	,84	158	2,569	,011
	No	60	3,29	,98			
Communication and Education Technology	Yes	100	3,96	,72	158	,043	,965
	No	60	3,16	,83			
Information Sharing and Cooperation	Yes	100	4,04	,74	158	1,461	,146
	No	60	3,57	,83			

Analysis show that teachers' perceptions about supportive leadership dimension show a meaningful difference according to principals' use of position power [t (158) = 2,569, p<.05]. Research findings show that the mean of the teachers who state principals' use of position power ($\overline{X}$ =3.97) is higher than other teachers ($\overline{X}$ =3.29). According to this finding, teachers think that principals who use their position power show supportive leadership behavior in organizational learning process. Thereby, it can be asserted that principals' use of position power in the change process is appreciated as a supportive leadership behavior by teachers. T-test was done in order to determine whether teachers' perceptions about organizational learning in their schools show a meaningful difference or not in terms of their opinions about following innovations related with education technology. T-test results according to participants' opinions about following innovations related with education technology are shown in Table 5 in terms of Organizational Learning Assessment Scale dimensions.

Table 5 T-test results for organizational learning according to participants' opinions about following innovations related with education technology within schools

Dimension	Following innovations related with educational technology	n	Mean	Std. Dev.	df	t	p
Instructional Practices	Yes	93	4,01	,68	161	1,460	,146
	No	69	3,77	,61			
Supportive Leadership	Yes	93	3,98	,82	161	4,543	,000
	No	69	3,04	1,04			
Communication and Education Technology	Yes	93	3,93	,74	161	4,723	,000
	No	69	3,08	,72			
Information Sharing and Cooperation	Yes	94	4,02	,72	161	3,017	,003
	No	69	3,47	,94			

According to research findings, it is determined that teachers' perceptions about supportive leadership dimension show a meaningful difference in terms of following innovations related with educational technology [t (161) = 4,543, p<.01]. Research findings showed that the mean of the teachers who think that innovations related with educational technology are followed ($\overline{X}$ =3.98) is higher than mean of the teachers who think that innovations related with educational technology aren't followed ($\overline{X}$ =3.04). However; it is determined that teachers' perceptions about communication and education technology dimension show a meaningful difference according to the state of education technology is being followed [t (161) = 4,723, p<.01]. The mean of the teachers who think that innovations related with education technology are followed in this dimension ($\overline{X}$ =3.93) is higher than other teachers ($\overline{X}$ =3.08). Teachers' perceptions about information sharing and cooperation dimension change according to the state of education technology is being followed [t (161)= 3,017, p<.01]. It is determined that the mean of the teachers who think educational technology are followed ($\overline{X}$ =4.02) is higher than the other teachers ($\overline{X}$ =3.47).

Finally, it can be asserted that teachers' perceptions about supportive leadership, communication and education technology, information sharing and cooperation dimension change according to the state of innovations about education technology is being followed within schools. T-test was done in order to determine whether participants' perceptions about organizational learning in their schools show a meaningful difference or not in terms of their colleagues' opinions about whether they are inclined to team work. T-test results according to participants' opinions about whether their colleagues are inclined to team work are shown in Table 6 in terms of Organizational Learning Assessment Scale dimensions.

Table 6 T-test results for organizational learning according to participants' opinions about whether they are inclined to team work

Dimension	Colleagues' liability to team work	n	Mean	Std. Dev.	df	t	p
Instructional	Yes	107	4,08	,65	158	4,743	,000
Practices	No	53	3,39	,60			
Supportive	Yes	107	3,97	,84	158	3,479	,001
Leadership	No	53	3,29	,98			
Communication and	Yes	107	3,96	,72	158		
Education	No	53	3,16	,83		4,784	,000
Technology							
Information Sharing	Yes	107	4,04	,74	158	2,713	,007
and Cooperation	No	53	3,57	,83			

According to T-test results, teachers' perceptions about educational practices [t (161)= 4,543, p<.01], supportive leadership[t (161)= 4,543, p<.01], communication and education technology [t (161)= 4,543, p<.01], information sharing and cooperation [t (161)= 4,543, p<.01] dimensions of organizational learning show a meaningful difference according to participants' opinions about whether their colleagues are inclined to team work. Thereby, the mean of the teachers who think that their colleagues are inclined to team work in terms of educational practices ($\overline{X}$ =4.08), supportive leadership ($\overline{X}$ =3.97), communication and education technology ($\overline{X}$ =3.16), information sharing and cooperation ($\overline{X}$ =4.04) dimensions is higher than other teachers.

Discussion

One of the most exciting changes that have occurred in education during the past decade has been the increase in knowledge in the areas of brain research and cognitive science. This research has produced a wealth of knowledge about how the brain functions and the kinds of conditions under which it learns most effectively. This new knowledge has significant implications for pedagogy and curriculum, and also for how schools are organized because the reality is that the kinds of conditions that are needed to promote learning do not exist in most schools (Bamburg 1997).

The main philosophy of organizational learning is "continual development and commitment to learning". Managers and teachers are greatly in charge in the creation of the schools that organizational learning and for managers and teachers to pull their weight are only possible with cooperation and communion. Getting support from colleagues and cooperative working is primary factor for organizational learning to occur in educational organizations. Teachers' confidence inspiration to each other as a colleague is of great importance in order to create cooperative working and cooperative working understanding. The support and assist that managers will give to teachers' innovation and development struggles also affect organizational learning positively.

In this research, organizational learning dimensions are educational practices, supportive leadership, communication and education technology, information sharing and cooperation. A meaningful finding of this study is that, teachers' perceptions about organizational learning differ meaningfully according to the teacher's age and their tenure of office. It can be asserted that we can develop schools' organizational learning ability only if we create systems which make easy and support managers', teachers', students', parents' and other education workers' learning course. The relationships between teachers' perceptions about organizational learning and managers' use of power in change applications confirmed Mulford and Silins' (2003) findings that the best leadership for organisational learning (and a community focus) was a principal skilled in transformational leadership and administrators (deputy principals, heads of department) and teachers who are actively involved in the core work of the school (shared or distributive leadership).

Conclusion

According to our research findings teachers' perceptions about organizational learning differ according to managers' use of managerial power in change applications, teacher's liability to the team work and whether technological advancements is followed or not. The findings of the research also sign the importance of collective learning and application in

order to realize organizational learning. It will also present a conceptual framework that describes the new form of leadership that will be needed if the transformation of schools into learning organizations is to occur. As Elmore (2000) puts it: the job of administrative leaders is primarily about enhancing the skills and knowledge of the people in the organization, creating a common culture of expectations around the use of those skills and knowledge, holding the various pieces of the organization together in a productive relationship with each other, and holding individuals accountable for their contributions to the collective results.

When we look at the research findings, it can be asserted that motivating individuals in schools to work and learn collaboratively and collectively and to follow technological advancements about education can be effective in transforming schools to learning organizations.

Future studies and discussions aimed at acquiring a deeper understanding of the processes involved in organizational learning include the influences of teachers, students, and communities in each country. We suggest that educational researchers should explore shortcomings and problems in each country, and should seek out, discuss and design effective methods to improve organizational learning.

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