ABSTRACT

If they are to be effective, organizations must acquire and create new knowledge in order to achieve their goals. Service organizations, such as schools, must employ the concept of organizational learning. Organizational learning is an intentional process directed at improving organizational effectiveness. The process involves four constructs — knowledge acquisition, information distribution, information interpretation, and organizational memory. This paper presents findings of a paper that examined the ways in which three high schools — one foundation school, one private school, and one public school — in Ankara, Turkey, acquired, disseminated, interpreted, and preserved new knowledge. Data were derived from observation and interviews with 24 teachers and 6 administrators. Findings indicate that the foundation school outperformed the public school and the private school in terms of the four organizational learning constructs. The foundation school gathered data through a wider variety of sources and distributed information through a wider variety of sources and distributed information through more intra- and extra-organizational activities than did the other two schools. Both the foundation school and the private school had more effective interpretation processes. None of the three schools had developed mechanisms for storing information for further use. The effectiveness of both the public and private schools was hindered by their centralized, bureaucratic organizational structures; the effectiveness of the private school was also hampered by the school’s profit motive.

ÖZET


INTRODUCTION

Science and technology present new knowledge, theories, innovations, and methods that change our life on a daily basis. Profound improvements in technology affect every aspect of life. Not only society, but also its institutions are affected by these improvements. Organizations try to acquire and create new knowledge to achieve their goals effectively. That is, adaptation to change and the use of the new technologies to do this are the crucial subjects for organizations. According to Ulrich et al., (1993: 55), the ability to adapt quickly stems from an ability to learn, i.e., the ability to assimilate new ideas and the ability to transfer those ideas into action faster than a competitor. Without this mental and physical dexterity, firms are likely to fail to recognize changing customer expectations, and thus stay with existing product lines beyond reason, and remain unresponsive to competitors' initiatives. As Garvin (1993: 86) points out, organizations - and individuals - simply repeat old practices if they are not learning systems. In this case,
improvements are either fortuitous or short lived. Similarly, Kim (1993: 37) argues that all organizations learn - whether they consciously choose or not - it is a fundamental requirement for their sustained existence.

Service organizations such as education, health or security have similar barriers to sustained existence, competitiveness, improvement and effectiveness. These problems are of particular importance in the sectors in which the share of public weight is in decline. Such cases require intentional learning processes (knowledge acquisition, information distribution, information interpretation, and organizational memory) in service organizations similar to industrial organizations. Therefore, the concepts of organizational learning and organizational learning processes should be examined and evaluated in service organizations as well.

Since 1983, privatization activities in public institutions have led to major changes, not only in industrial organizations, but also in educational organizations. The point of view that the government should provide schools has been losing credibility. Thus, the number of private and non-public schools has increased gradually. Despite their small weight, private schools present a new view of education in the Turkish educational system. It is expected that public education will further lose its traditional power, and the niche will be filled by private and non-public schools in coming years.

**The Purpose of the Study**

Using a case study design, the purpose of this paper is to assess the effectiveness of three types of schools from an organizational learning perspective: a public school, a private school and a foundation school in the capital of Turkey, Ankara.

The following research questions guided the data collection procedure:

1. Which methods are used to acquire new knowledge in the schools included in the study?
2. Which methods are used to distribute information in the schools included in the study?
3. Which methods are used to interpret information in the schools included in the study?
4. Which methods are used to preserve new knowledge in the schools included in the study?

**REVIEW OF THE LITERATURE**

The topic of organizational learning has recently gained substantial attention, but there is little agreement on what organizational learning means and even less on how to create a learning organization. The concept of organizational learning finds its roots in the cybernetic models of the 1960s. It was popularized by major organizational scientists such as Simon (1960), Argyris and Schon (1978), and lately by Senge (1990). This overview suggests that the study of organizational learning is not new. What is new, however, is the recent interest in how the concept of the learning organization can help managers build competitive enterprises (Ulrich et al., 1993: 55).

Dodgson 1993 suggests a number of reasons why the study of organizational learning is currently so popular and why the concept of "learning organization" is gaining priority among large organizations. First, organizations attempt to develop structures and systems which are more adaptable and responsive to change. It is increasingly appreciated that learning is a key to competitiveness. Second is the profound influence of rapid technological changes upon organizations. Third, learning is a dynamic concept, which helps to explain the continually changing nature of organizations. Furthermore, it is an integrative concept that can unify various levels of analyses: individual, group and corporate, which is particularly helpful in reviewing the cooperative and community nature of organizations (Dodgson, 1993: 376). In a similar way, Ulrich et al., (1993: 54) argue that learning in organizations matters more now than in the past for three reasons: workforce competence, capacity for change, and competitiveness. They believe that the acquisition of competence, the ability to change, and the need to be competitive are critical success factors for any public or private organization. By enlarging its capacity to learn, the organization increases its chances of success in each of these dimensions.

**Definitions of Organizational Learning**

Organizational learning is also not easy to understand as a concept. Various definitions of the learning organization have been put forward. When organizational scientists think about organizational learning, they often think of it as an intentional process directed at improving effectiveness. Most scholars view organizational learning as a process that unfolds over time and link it with knowledge acquisition, improved performance and organizational actions (Fiol and Lyles, 1985: 803; Garvin, 1993: 80; Senge, 1991: 37).

Argyris and Schon (1978: 58) define organizational learning as "... a process in which members of an organization detect error or anomaly and correct it by restructuring organizational theory of action, embedding the results of their inquiry in organizational maps and images."

Stata (1989) views organizational learning as the principal process by which management innovation occurs. He argues that the rate at which individuals and
organizations learn may become the only sustainable competitive advantage, especially in knowledge-intensive organizations (Stata, 1989: 64).

Characteristics of Learning Organizations

The characteristics of learning organizations are described by organizational scientists. Senge (1990) describes learning organizations as places "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." To achieve these ends, he suggests the use of five "component technologies": system thinking, personal mastery, mental models, shared vision, and team learning.

According to Pedler et al., (1989) "the learning organization facilitates the learning of all its members and continually transforms itself." Such an organization;
- has a climate in which individual members are encouraged to learn and develop their full potential.
- extends this learning culture to include customers, suppliers and other significant stakeholders.
- makes human resource development strategy central to business policy.
- continually undergoes a process of organizational transformation"

To Garvin (1993), on the other hand, a learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights (Garvin, 1993: 80). This definition begins with a simple truth: new ideas are essential if learning is to take place.

METHODS

The Cases

This study was carried out in one foundation high school, one private high school, and one public high school in Ankara. When these schools were introduced, specific information about the schools was not illustrated. Therefore, from here on, the schools will be called "the Foundation School", "the Private School" and "the Public School" instead of their original names.

The Foundation High School: The Foundation School was founded by people who dedicated themselves to education. The Foundation School is a form of private school in that tuition is required for attendance, however, the school does not operate for profit. Tuition and fees charged from the students for education services are transferred into education processes. There is always a high demand for enrollment due to the school's good reputation and high quality of education. Admission to the school is done through the nationwide Private School Examination.

The Administrative Board is at the top of the administrative hierarchy. The general director and school principal positions are overseen by the board. Besides these, the school has also two assistant principals. Administrative decisions involve the principal as well as parents and teachers, which lead to a shared vision.

There are 844 students and 28 classes in the school. The number of students in each class is limited to thirty.

The Private High School: The Private School is owned by a private entity and operates for profit which causes aggressive recruitment. Primarily the owners of the school make administrative decisions. Therefore, the contribution of the principal, teachers, and parents is very limited.

The Public High School: The Public High School is affiliated with the Ministry of National Education. Any student can attend the school free of charge. It is primarily financed from the government budget. Because of the centralized structure of the public school system, any attempt at school improvement is expected to come from the top authority. It has approximately 4700 students, one principal, 170 teachers, one head assistant principal, 10 assistant principals, four guidance counselors and 13 administrative personnel.

Demand for the public high school has increased substantially due to its success among public schools. Therefore, the number of students in each classroom has increased to about 60 or 70. Most of the students are from middle class families. Many students preparing for University Entrance Exam attend private courses. Private courses may be considered as one of the important factors affecting the performance of the public high school among other public schools.

Data Collection and Analysis

In each school, one teacher from each subject area (a total of 8 teachers from each school based on eight fields of teaching: Science, Social Science, Arts, Sports, Turkish, Mathematics, Foreign Languages, and General Culture), the principal of the school and an assistant principal were selected for interview. A total of 24 teachers and 6 administrators were interviewed in three schools for the study. A typical interview ran for about 50 minutes.

Data were collected using an interview form and a
school information form. The interview form was developed involving 15 open-ended questions which were derived from reviewing the related literature. First, the methods and the activities in the organizational learning processes were determined from the literature, then these methods and activities were transformed into question form. Questions in the interview schedule dealt with the four dimensions of the organizational learning processes: knowledge acquisition, information distribution, information interpretation, and organizational memory.

The school information form consists of four sections. In each, the following dimensions were developed to gather information in each school: number of school personnel, physical qualities of the work environment, the methods used for preserving knowledge for future use, school and teaching-learning related development activities (seminars, courses) during the last two years in each school.

The interview schedule was initially pilot-tested with five randomly selected high school teachers and two school principals. After each interview, interviewees' comments were elicited, followed by a number of fundamental changes in the schedule. As a result, almost all interview questions were rewritten.

A content analysis technique was used to analyze the data (Patton, 1980). Interview data from the 24 teachers and 6 administrators were organized using a word processing program. First, the 4 questions listed earlier as research questions were used as major categories through which the data could be sorted. By using the word processor program, responses of 8 teachers and 2 administrators in each school were cut and pasted under each category. Then, thematic similarities and differences were identified under each category. Hence, information elicited through the school information form was also cited under each category. Finally, frequencies and percentages were drawn from the data.

FINDINGS

Q1. "Which methods are used to acquire new knowledge in the schools included in the study?"

Interviewees identified the following 10 ways of acquiring new knowledge in the case schools:

- Journals and periodicals
- Activities such as symposiums and seminars
- Collaboration with universities
- Visits to other schools
- Gaining information about competing schools
- Experimentation
- Recruiting and transferring qualified and experienced teachers from other schools.
- Learning from failures
- Taking risks
- Collaboration with parents

The schools utilize these at different levels. For example, compared to the other two, the Foundation School subscribes to more periodicals (a total of 12) published within the country and abroad. They are readily accessible and kept in the school library for teachers' use. All of the interviewed teachers (8/8) in the Foundation School stated that such periodicals are broadly used and that the acquired new knowledge is widely shared by teachers. The Private School, on the other hand, subscribes to only three periodicals which are kept in the principal's office. Almost all the teachers interviewed in this school (7/8) were not aware of such subscriptions, except for the official bulletin of the Ministry of National Education (Tebliğler Dergisi). The Public School, however, does not subscribe to any periodicals. Only the official bulletin of the Ministry is sent to the school, free of charge by the Ministry of National Education.

Regarding developmental activities, the Foundation School organized eight seminars and symposiums in the last two years, considerably higher when compared to the other two: the Private School organized three activities, and the Public School had made none such efforts. Also, teachers and administrators of the Foundation School have participated in various out of school activities such as international seminars on education and international foreign language symposiums. However, teachers in the Private and Public Schools only attended in-service education courses provided by the Ministry of National Education. These seminars and courses are usually of low quality and are considered routine activities. They are not sufficient for the developmental needs of schools.

The Foundation School has established strong communication and collaboration with universities and other institutions, that serve as an enrichment of the ways to acquire new knowledge. Ten activities have so far been implemented through the cooperation of the Foundation School with universities. On the other hand, from the statements of all the interviewed teachers from the Private School and the Public School, it is evident that these schools have not had any such collaboration with universities and other institutions.

None of the three schools subject to this research have made a purposeful or a planned visit to other schools for new knowledge acquisition purposes. Rather, information about various aspects of other schools is gathered through unplanned, casual individual visits or contacts.

Of the findings regarding competition among schools,
all of the interviewed teachers in the Private School (8/8) stated that they were in competition with all other private schools. More than half of the interviewed teachers in the Foundation School stated that they were in competition with successful private schools. Almost all interviewed teachers in the Public School stated that competition with other schools was not a concern in their school. Although both the Foundation School and the Private School accept competitive environments in the educational sector, neither of them any planned strategy or ways of monitoring the activities of their competitors or of transferring their effective applications. The information concerning teaching/learning and administrative policies of competitor schools is often gained randomly.

Teachers interviewed in the three schools mentioned their own experimentation as one of the ways of gaining new knowledge. Most often, they use this method when "knowledge, theories, and methods in the field are limited" or for the purpose of "testing requirements of some theories and approaches in special cases."

Instead of transferring in successful experiences from other schools, the Foundation School hires teachers through written and oral examinations. However, successful teachers with different experiences and approaches are invited to the school on a payment per course basis. Thus, the transferring of new knowledge to the school is possible to some extent. However, Public and Private School administrators have no authorization in respect to staffing. In the case of the Public School, the sole authority for selection and appointment of teaching staff is the Ministry of Education, and for the Private School it is the founders of the school.

Seven out of eight teachers in the Foundation School and in the Public School alike, and four out of eight teachers in the Private School stated that they were not afraid of making mistakes, and they generally get feedback for correcting their mistakes. In fact, they also indicated that their administrators had no way of detecting their mistakes. However, more than half of the interviewed teachers in these schools stated that they do not want to take risks.

More than half of the teachers interviewed in the Foundation School (5/8) stated that parents are a good source of acquiring new knowledge through their suggestions about various aspects of the school as well as teaching and learning processes. Parents from a great variety of occupations i.e., psychologists, sociologists and academicians provide valuable contributions to the acquisition of new knowledge. Teachers interviewed in the Private School stated that parents' contribution to the acquisition of new knowledge is rare or very limited. All the teachers in the Public School (8/8) agreed that contributions by parents to facilitate new knowledge for the school is simply not the case. They stated that communication with parents is very limited and occasional, in most cases, just briefing them about their children's grades no more than twice in each semester.

Q2. "Which methods are used to distribute information in the schools included in the study?"

Findings regarding the second subproblem indicate that the Foundation School uses more methods for distribution and sharing of new knowledge compared to the other two schools.

Almost all the teachers in the Foundation School (7/8) stated that new knowledge is widely shared. Findings also indicate that the most effective method used in the school concerning the sharing of new knowledge was group work by the teachers who teach the same subject. All the teachers in the Private School (8/8) stated that new knowledge and experiences are shared broadly by the teachers. They similarly pointed out the effectiveness of group work.

More than half of the teachers in the Public School (6/8) stated that the sharing of new knowledge is very limited, only through informal contacts during breaks. All the teachers (8/8) stated that group work is not the norm in their school. The others stated that group work by teachers who teach the same subject is not for the purpose of professional development or school improvement, but for the purpose of administrative obligation imposed by the Ministry of Education.

On the other hand, it seems that casual as well as formal contacts within the school building seem important in sharing new knowledge. The Foundation School and the Private School are far better in terms of the space devoted for these contacts as well as the quality of these places. There are, for example, special rooms allocated for meetings of same-subject teachers both in the Foundation School and the Private School. Furthermore teachers' rooms in these two schools are furnished in a comfortable manner. Thus, most of the teachers use these places during the breaks and they have more opportunities to work together and share ideas. However, there is only one teachers' room for 170 teachers in the Public School. Noise, poor ventilation, and a crowded environment may adversely affect knowledge-sharing in this school.

Q3. "Which methods are used to interpret information in the schools included in the study?"

All the teachers in the Foundation School and the Private School stated that distribution of knowledge in connection with a new case or with a new piece of information varies. Some of them expressed the following opinions:
"An idea that seems unacceptable at the beginning can be seen acceptable at the end of discussion."

"Marginal views are also listened to and discussed."

"There exists variety in comments and suggestions. Meetings are very colorful."

Almost all of the teachers in the Public School (7/8) stated that the comments concerning cases and events are usually similar to each other. According to them, meetings do not provide anything they are nothing more than rituals repeated aimlessly, just being meetings "required by regulations", such that:

"Sometimes someone is curious or creatively suggests a different thing, but such suggestion or comment is rejected during voting."

"No one tries to suggest a different approach."

"Teachers react negatively to the prolongation of meetings because they believe that nothing worthwhile will be produced at the end."

Q4. "Which methods are used to preserve new knowledge in the schools included in the study?"

The findings of the study indicate that the three schools show both similarities and differences with respect to the storing of experiences and new knowledge. Of the similarities, all of the three schools show great care in storing official information (enrollment, attendance, diploma, graduation, certification, etc.). Filing systems are used in an effective manner for such purposes.

In the Foundation School, information concerning guidance services, examination questions and results, attendance schedules, and accounting information are stored in a computer database system. The efforts to establish a school museum still continue. Photographs concerning various activities are preserved in an album. Similarly, in the Private School, information in connection with student affairs and accounting are stored in a computer system. In addition, photographs and video cassettes concerning various school activities and celebrations are stored. The Public School, on the other hand, has no such systems of preserving and storing information beyond the official documents (enrollment, attendance, diploma, graduation, certification, etc.).

Almost all the teachers interviewed in the three schools stated that they record neither the problems they encounter in the education process, nor solutions to these problems that they found themselves, nor their school experiences. What happens as a result is that, as they remark, as they leave the school, they take away all the information and experiences they accumulated and learned either randomly or purposefully.

DISCUSSION AND CONCLUSION

The data obtained from 24 teachers and 6 administrators from three schools through interviewing techniques have revealed essential differences among the schools with respect to their organizational learning processes.

Knowledge Acquisition: Of the knowledge acquisition process, the Foundation School seems to be acquiring new knowledge from a variety of sources compared to the Private School and the Public School. While the Private and the Public Schools are acquiring new knowledge only from experimentation and correction of failures, the Foundation School is using periodicals, organizing activities such as seminars, and designing various projects with other institutions, such as universities to acquire new knowledge. Furthermore, the intensive communication with parents who are in the position of receiving educational services provides additional channels for the acquisition of new knowledge.

As quoted earlier, Garvin (1993:86) points out that in the absence of learning, organizations simply repeat old practices. That is to say, enhancing organizational development and gaining a competitive advantage is only possible through new knowledge acquisition, which is an essential part of learning. To do this, the use of various sources and methods of acquiring new knowledge is important in the sense that "more organizational learning occurs when more of the different sources are used" (Huber, 1991:91). Findings obtained from the three schools seem to support these statements: As we reported earlier, the Foundation School utilizes more ways and components of acquiring new knowledge. This may be one of the reasons why it ranked 30th in the 1994 University Entrance Examination in Turkey among 3700 schools, while the Private School and the Public School were ranking 356th and 628th, respectively.

Studies in organizational learning often state that knowledge gained from failures is often instrumental in achieving subsequent successes, and is also a crucial source for new knowledge acquisition that may breed creativity and innovation (Garvin, 1993:85). To enhance the learning capacity of organizations, "not only correcting responses but also detecting errors should be rewarded" (Schein, 1993:87). As we reported earlier, however, the teachers interviewed in the three schools stated that administrators do not have the skills to detect, or are not interested in detecting their own mistakes or other failing efforts in their schools. By this, a good source of innovation and learning is not, apparently being tapped adequately in the schools.

It is often stated that when more organizational components are used in the knowledge acquisition
process, more new knowledge is gained. What this means is that a degree of flexibility in organizational procedures, decentralization in structure and an open culture positively affect organizational learning. In the Foundation School, the interaction among administrator, teachers, parents, education specialists, and school governing board is loosely structured and they are granted a certain latitude to engage in various ways of acquiring new knowledge. In the Private School, however, even the school principal is under close supervision of the school founders, having been assigned a caretaker role, with only two school founders having full consent in almost all decisions and actions. Similarly, regarding the Public School, the school is under tight control of the Ministry of Education. This finding concerning the overall performance of these schools in UEE ranking and the mode of administrative structure and processes (the factors enhancing or inhibiting the learning capacity) generally is consistent with the findings in the organizational learning literature that organizations should be structured loosely, should facilitate open culture and must create ways to support risk-taking for their members.

Information Distribution and Sharing: In order to ensure that the new knowledge is used for organizational purposes at the highest level, this knowledge should be distributed within the school rapidly, and effectively, and shared broadly by teachers. By this, learning is expected to be an organizational process rather than an individual activity. Findings of this study indicate that the Foundation School has more intra- and extra-organizational activities concerning the distribution and sharing of new knowledge compared to the other two schools. On the other hand, the remaining two schools do not have a rich array of channels to distribute knowledge; they utilize very few methods for information distribution. Considering the fact we earlier stated that organizational structure and administrative processes in these two schools are rather centralized, distribution of such information to teachers and other school staff is considered an administrative obligation.

Information Interpretation: Daft and Weick (1984:292) define interpretation as the process through which information is given meaning. Similarly, Huber (1991:101) explains that "more learning occurs when more and more varied interpretations concerning new understanding, information and recommendation are developed." When the schools sampled in this study are evaluated in these aspects, it is concluded that the information interpretation process in the Foundation School and in the Private School seem more effective compared to that of the Public School. Specifically, group studies, group work by the teachers who teach the same subject, and frequent meetings with administrators, teachers and parents provide essential contributions to this process. Of course, a relatively democratic atmosphere of the Foundation School seems a factor that positively influences the interpretation process. From our results, it is evident that there is no clear information interpretation process in the Public School. As the teachers of the school observed, things are flowing in their natural course and the school has no control over them. Thus the revealing of creative views and solutions are very difficult, and, therefore, only the known things repeat themselves. Competition with other schools or being more successful than other schools is not a concern in this school.

Organizational Memory: Organizations learn through their members. Organizational memory consists of learning gained by the organization's individuals, experiences, decisions, encountered problems, and solutions to remedy these problems. The information in organizational memory is stored for the purpose of providing contribution to solutions for problems to be encountered in the future. If this storage does not exist, learned experiences evaporate shortly after these individuals leave the organization. To avoid this, individuals -administrators, teachers and other staff alike- should be provided with various means (written or electronic) of recording their experiences, decisions and methods that they may have accumulated during their stay in the organization.

Our findings indicate that none of the three schools covered in this study have developed such mechanisms to store information for future use. Information stored in these schools is generally for proving or verifying the functions and proceedings applied usually for bureaucratic purposes. Such stored information may not provide an effective use for any affirmative contribution to new decision-making, considering the fact that organizational memory determines ideology, norms, values, and assumptions that frame the organization to some extent. Individuals may get in and out, but these aspects of organization should be preserved by means of organizational memory.

As our findings indicate, the Public School has the most serious learning deficiency compared to the other two schools. Public schools in Turkey are financed by the government. This strong hold of the government on public education has eventually turned public schools into public bureaucracies where administrators play a caretaker role. Almost all organizational functions (even operational ones) -financing, appointment, rotation, reward, punishment, performance evaluation, etc.- are granted to the central authority. Therefore, any attempt for school improvement is expected to come from the top
authority. Thus, the teaching staff and administrators in
public schools do not consider themselves as essential
components of the school. Instead of a "my school" view,
a " this is a school of the Ministry of Education" view
prevails. Therefore, individuals are not able to construct
an identity specific to that school and are not able to share
a vision other than realizing the short-term goals of the
school. As a result of our research, we can state that
centralized, bureaucratic nature of the organizational
structure seems not to breed organizational learning, and
consequently to impede change and improvement within
the schools.

One of the most important findings of this study is
that the ineffective operation of organizational learning
processes in the Private School largely stems from its
organizational structure and administrative processes. As
we mentioned earlier, its organizational structure and
decision-making styles somewhat resemble the
centralized structure and practices of the Ministry of
Education. At the top, there are the school owners who
are authorized to make all decisions, and at the lower
levels there are administrators and teachers who are
obliged to conform to such decisions unconditionally.
This organizational structure in the school may constitute
one of the major obstacles to effective learning in this
school. Since innovation and improvement are expected
from the top management, individuals do not feel the
need for learning in a free-flowing, entrepreneurial
manner.

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