

## ÖRGÜTSEL ÖĞRENME: ÖĞRENME TARZLARI İLE KURUMSAL ÖĞRENME ORTAMI İMKANLARININ PERFORMANSA ETKİLERİ<sup>1</sup>

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### ÖZET

Öğrenen organizasyon yaklaşımı çağımızın etki bırakan en önemli örgüt yaklaşımlarından biridir. Birçok çalışma örgüt içinde çalışanlara sunulan öğrenme olanaklarının temel düzey ve ileri düzey beceri ile performans seviyeleri üzerinde etkili olup olmadığını arařtırmıştır. Diğer yandan bu öğrenme olanakları ile çalışan bireylerin öğrenme stilleri arasında bir ilişki olup olmadığı da önemli bir araştırma sorusudur. Bu araştırma sorusu temelinde Türkiye’de farklı kurumlarda çalışan 42 katılımcıyla bu araştırma yapılmıştır. Kullanılan ölçekler Watkins ve Marsick “Öğrenen Organizasyon Boyutları Ölçeği” ve New Orleans Sosyal Bilimler Eğitim Bölümü’nün geliřtirmiş olduđu “Öğrenme Tarzları Anketi”dir. Sonuçlar kurumlarda pozitif öğrenme ortamının var olması ile bireysel ve kurumsal performans çıktıları arasında olumlu bir ilişki olduğunu göstermiştir. Diğer yandan öğrenme tarzları ile sunulan öğrenme araçlarının içeriği ve biçimi arasında bir ilişki bulunmamıştır. Böyle bir ilişkinin olmaması bireylerin iş memnuniyetlerini de olumsuz olarak etkilememektedir.

**Anahtar Kelimeler:** , Örgütsel Öğrenme, Öğrenme Tarzları, Öğrenen Organizasyonlar, Performans, Çalışan Memnuniyeti, Liderlik

## ORGANIZATIONAL LEARNING: THE EFFECTS OF INDIVIDUAL LEARNING STYLE AND LEARNING OPPORTUNITIES OFFERED IN ORGANIZATION

### ABSTRACT

Various observational and survey designs were generated to study whether the opportunities provided in organizations have a real statistically noteworthy effect on performance at elemental and global levels. On the other hand, the researchers looking for the impacts of juxtaposition between individual learning styles and the learning opportunities made available within a setting have made an ongoing progress. However, there is vacancy in current research focusing simultaneously on individual learning styles and performance at individual / organizational levels. Against this backdrop, this thesis brings together the research about the aforementioned subjects and reveals the results of a survey design conducted with 42 participants from various organizations in Turkey. The scales employed are "Dimensions of the Learning Organization Questionnaire" developed by Watkins and Marsick, and The Learning Styles Questionnaire developed in the University of New Orleans Social Studies Education Program. Taken together, the results have shown that there is a relationship between “positive learning environment in an organization” and “individual and organizational performance outcomes”. On the other hand, no relationship was found between the “overlapping of individual learning styles with the type of learning sources provided within the organization” and “individual and organizational performance”. The mismatch between the individual learning styles and organizational learning sources does not significantly effect the satisfaction of individual with learning sources in an organization, increase in knowledge, salary, or performance.

**Keywords:** Organization, Organizational Learning, Learning Styles, Organizational Behavior, Leadership

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## INTRODUCTION

In the last few decades, the studies investigating the effects of a positive learning environment on individual and organizational performance has formed one of the increasingly favorite research domains in organizational psychology. However, there is vacancy in current research bringing together individual learning styles and performance at individual/organizational levels. Against this backdrop, this thesis brings together the research about the aforementioned subjects and reveals the results of a survey design conducted with 42 participants from various organizations in Turkey. In a progressive manner, the results of the study and its implications for organizational learning as a whole will be critically handled.

### 1. DEFINITIONS AND TERMS

According to Watkins and Marsick (1993), learning occurs at consecutively more complex, collective learning levels in organizations: individuals, groups and teams, larger business units and networks, the organization itself, its network of customers and suppliers, and other societal groups. Learning in the learning organization is extremely social. People learn as they work together in the direction of the attainment of obvious goals that they helped to create. In an organization, individuals facilitate each other's learning. Groups learn in an almost arbitrarily interactive way so that people build on one another's experiences, insights, and expertise. At the organizational level, learning occurs quickly through complex interactions, as if it were a nuclear chain reaction. Organizational learning is much more complicated to manage or even forecast than individual learning.

A learning organization is one which is self reflective and accustomed to self renewal. Active partaking is among the most important issues for the individuals of a learning organization. Congruence of the personal goals and the shared desire of success within the organization help to stimulate the satisfaction, active participation and motivation of employees.

Similar to individuals, firms are also continually occupied with their internal and external surroundings. They constantly react to novel trends in competition, rivalry, and the socio-demographic characteristics of employees and consumers equally. In an organization, knowledge comes either from the internal sources, or from market and social exchange which are recognized as external sources (Liebeskind et al., 1996). All three sources of knowledge are contextually entrenched and institutionally forced. Social and group standards state what and how knowledge is transferred. Social exchange, which allows the interaction of cumulative knowledge containers, can escort to the transfer of tacit knowledge (Powell 1998). Sometimes, when elementary changes in the firm's competitive environment take place, learning occurs to correct not only the process by which decisions are made but also the standards to which these decisions are measured against (Argyris and Schon 1996).

For Argyris and Schön (1996) when there is something wrong, given or chosen goals, principles, tactics and rules are operationalized rather than questioned. When the organization carries on its existing plans and accomplishes its purposes after the error is detected and corrected, that procedure is single-loop learning. Single-loop learning exists when goals, principles, structure and strategies are taken for granted. The importance is on techniques and making techniques more influential. In single-loop learning, organizational members jointly specify their subjective assumptions or mental models about the surroundings in order to perform better. Argyris (1983) says that single-loop learning is like a thermostat that learns when it is too hot or too cold and turns the heat on or off. The thermostat can carry out this job because it can get information about the temperature of the room and take corrective action. Emphasis is on making the strategy more efficient (Argyris, 1983).

The significant features of Argyris' model which is constructed on enhancing double loop learning in organizations includes the aptitude to identify good quality data and to make conclusions. Higher level (double loop) learning involves defying the assumptions, rules and regulations that are the core of the collective mental models. It contains the views and knowledge of members more willingly than seeking to strengthen a single view over and above the establishment. In other words the model is dialogical and more probable to exist in settings and organizations that seem to have shared leadership. It emphasizes common goals and shared influence, promoting open communication, overtly testing assumptions and viewpoints, and uniting support with investigation (Argyris and Schön 1996). The proponents of learning organization propose that applying learning organization strategies should endorse individual, team, and organizational learning and that such enhanced learning should give way to performance gains (Baker and Sinkula, 1999).

Organizational climate is a characteristic of an organization, which differentiates it from other organizations. It (1) embodies members collective perceptions about their organization with respect to such dimensions as autonomy, trust, cohesiveness, support, recognition, innovation, and fairness, (2) is produced by member interaction, (3) serves as a basis for interpreting the situation, (4) reflects the prevalent norms, values, and attitudes of the organization's culture, and (5) acts as a source of influence for shaping behavior (Lewicki, Bowen, Hall, & Hall, 1988). . The learning organization is the one which enhances the learning of all its members and transforms itself continuously. According to Senge (1990), learning organizations are organizations where people continually expand their capacity to create the results they truly desire, where new and open models of thinking are raised, where collective ambition is set free, and where people are continually learning to see the whole together.

Learning styles refer to the ways people have a preference to move toward new information. Each individual has an exact and habituated manner of learning. It is called "learning style" and it leads to the facilitation or acceleration of knowledge and skill acquirement. Learning style has a link with grouping and processing of information. Therefore, learning style of an individual brings changes in his knowledge and skill collection. Learning style is a firm way of responding to, and using, stimuli in the context of learning. Just like cognitive style, it reflects the ways in which individuals process information when interpreting circumstances, assess the consequences of actions in those situations, and use this understanding to refine (or redefine) their theories-in-use (Hayes and Allinson, 1998). Learning styles can be defined, classified, and identified in many ways. In this study, the classification which is preferred to employ is the perceptual learning style model. According to this model, there are mainly three styles of learning which are visual, auditory, and tactile/kinesthetic. Dunn et al. (1991) challenge that each individual's learning style is based on a composite set of reactions to diverse stimuli when the person is learning in a particular context. As such, each person has a learning style profile which provides information as to how he/she prefers to produce or learn. Most people learn with using all of these styles. However, it is also a fact that most people have unusual weaknesses in particular styles and predominant strengths in other styles.

Visual learners learn through seeing. A visual person learns best when information is presented visually and in a written language format. These learners want to see the instructor's body language and facial expression to fully understand the content. In a learning setting, he benefits from instructors who use the blackboard (or overhead projector) to list the necessary points of a lecture, or who provides an outline to follow during lecture.

The visual learners may think in pictures and learn best from visual displays including: diagrams, illustrated texts, overhead transparencies, videos, flipcharts and hand-outs. During a discussion, visual learners generally take detailed notes to absorb the information. The learner habitually sees information in his mind's eye when he wants to remember something.

Auditory learners learn through listening. They learn best through verbal lectures, discussions, talking things through and listening to what others say. Auditory learners understand the basic meanings of speech through listening to tone of voice, pitch, speed and other details. They take advantage of participation in group discussions. Written information may have modest meaning until it is heard. These learners often enjoy reading text aloud and using a tape recorder. When trying to retain information, they can repeatedly hear the way someone told them the thing, or the way they previously repeated it out loud. They learn best when interacting with others in a listening/speaking exchange.

Tactile/Kinesthetic Learners learn through practicing, moving, doing and touching. Tactile/Kinesthetic persons learn best through a practical approach, actively exploring the physical world around them. They benefit from a lab setting where they can control materials to learn new information. They learn best when they can be physically active in the learning environment. They may find it hard to sit still for extensive periods and may become unfocused by their need for activity and exploration.

## **2. RESEARCH QUESTIONS**

The hypothesis of the study is listed below:

- 1) A more positive learning environment is related to more satisfaction with learning sources in the organization.
- 2) If there is improvement of knowledge, there should be increase in productivity.
- 3) Satisfaction with learning opportunities is associated with individual productivity increase. As expressed by the second hypothesis and proven in the previous pages, a more positive learning environment is related to more satisfaction with learning sources in the organization. Therefore, a more positive learning environment is correlated with increase in individual productivity.
- 4) Providing learning opportunities and environments to suit employees' learning styles will influence the performance outcome of the individuals directly and organizations indirectly.
- 5) If there is a mismatch between individual learning styles and learning sources available in the organization, dissatisfaction with learning sources occurs.

## **3. METHOD**

There were 47 individuals who filled out the questionnaires without missing data. 26 of them were males and 19 were females. Three of the participants were eliminated afterwards because of their extreme answers and/or scores. Additional two questionnaires were also not considered during statistics due to considerable invalid data (e.g., checking more than one point on the scales). The final sample includes 27 employees and 15 managers. The age range is 25 to 52 years; the mean age is 31.36 years. The resulting questionnaires belong to 42 individuals (Male, N: 23; Female, N: 19). A three page question package called "Learning in Organizations Questionnaire" was used in this study (please see the Appendix). Part of the first page seeks answers for demographic data concerning the participants (e.g., gender, age, occupation, education level, and experience in the current company).

There are yes-no type questions for access to educational and training programs in the company (Q: 9), if the participant thinks that he/she improved his/her knowledge due to these training programs (Q: 7), and if there is an individual and organizational productivity increase as a result (Qs: 15, 18). There are more yes-no questions inquiring whether there is a continuous salary increase (Q: 12), and organizational knowledge quality and quantity improvement (Qs: 13, 14). There is one 1-7 Lickert type scale question measuring satisfaction with available learning resources in the company (Q: 11). The 17th question asks how much growth had the company seen in the last three years. This question can be answered on a minus % to 100% 6-point scale. In the 10th question, the participants are required to check the type of available learning resources in the organization. There is a list of learning sources and aids each characterized in literature by its dominant use as a visual, auditory, or tactile learning medium. In the complimentary 16th question, participants are required to check the resources they would employ for a better organizational learning.

The questions about learning resources in the first page supplement the questionnaires in the second and third pages. The answers from the first page are used to see whether there is an overlap between individual learning style (visual, auditory, tactile), and type of learning resources present in the organization. If there is an overlap, another question checks whether the person feels satisfied with those resources. Other questions aim at discovering if this overlap accompanies an increase in individual knowledge and productivity, and as an offshoot, an increase in salary. As the organizational level correlate, other questions are designed for finding out if there is a related, indirect increase in company growth.

The questionnaire in the second page is called “Dimensions of the Learning Organization Questionnaire”. It is developed by Watkins and Marsick. This questionnaire assesses individual, team, organizational, and leader dimensions of learning in organizations. Different scores for each of these four levels (as factors of the questionnaire) will be calculated for each respondent. One main score reflecting the organizational learning score combining those four dimensions will also be computed for statistical purposes. The results will give in the opportunities allowed and provided in the organization about learning.

In the third page, individual learning styles is measured. This scale was developed by University of New Orleans Social Studies Education Program. The questionnaire is called “Learning Styles Inventory” and it has three factors assessing visual, auditory, and tactile learning styles.

Nearly half of the participants (N: 20) were reached through the SAP annual meeting in Istanbul. It was a conference held in Swiss Hotel Istanbul. SAP is a computer software company which produces computer software for integrating business processes in an organization. The participants filled out the questionnaire during the lunch break. The rest of the subjects were found through the Business Counseling Seminars for Businessmen in Bogazici University, Istanbul (N: 16). Six person from Siemens Istanbul branch also participated in the study. All the subjects except the ones from Siemens, who sent the questionnaires by electronic mail, handed in their questionnaires individually. Most of the subjects (N: 36) completed the questionnaires in groups. All of the questionnaires were anonymously filled out.

#### 4. RESULTS

The first hypothesis is; a more positive learning environment is related to more satisfaction with learning sources in the organization. This hypothesis assumes a correlation between two linear data. The first of these data is composed of individual scores each of 42 participants got on the Dimensions of Learning Organizations Questionnaire. The second data

includes 42 individual responses on the seven point Lickert type scale (0 to 6) measuring satisfaction with learning sources in the organization.

Pearson correlation indicated a very significant correlation between these figures,  $r = +.576$ ,  $n=42$ ,  $p < .001$ . Therefore, the hypothesis is affirmed.

The second hypothesis is; if there is improvement of knowledge, there should be increase in productivity. These two variables, “improvement of knowledge,” and “increase in productivity” are based on yes-no (encoded as 0-1 during statistics) answers. It is impossible to make a parametric test with this kind of data. Therefore crosstabs descriptive analysis and chi-square test were conducted to see if there is a meaningful difference between the proportions of people who fall in four groups: namely the people who said yes-yes to both of these questions, the people who said no-no, no-yes, and yes-no, respectively. The chi-square test indicated that the hypothesis is right according to our sample, since 27 of 42 respondents told that they increased their productivity when they improved their knowledge, and 12 of 42 respondents said they did not increase their productivity when they did not improve their knowledge. Whereas there are only two people who said they did improve their knowledge while they did not increase their productivity. In other words, the chi-square statistic show a very meaningful difference between the frequency distributions of these four groups,  $X^2(1, n=42) = 29.467$ ,  $p < .001$ .

The third hypothesis is; satisfaction with learning opportunities is associated with individual productivity increase. As expressed by the second hypothesis and proven in the previous pages, a more positive learning environment is related to more satisfaction with learning sources in the organization. Therefore, a more positive learning environment is correlated with increase in individual productivity. To test this hypothesis, first an independent samples t-test comparing the means of respondents who reported having increased their productivity on the one hand and who reported no productivity increase on the other about the scale measuring satisfaction with learning sources was carried out. The results indicated that the people who increased their productivity had higher level of satisfaction with learning sources,  $t(40) = -3.434$ ,  $p < .001$ . This result is substantiating the first sentence related to this hypothesis. The second part of this hypothesis is expressed in the last sentence. If there is a more positive learning environment, there should be more productive and better performing individuals. Another t-test was computed. The outcome confirmed the hypothesis,  $t(40) = -10.179$ ,  $p < .001$ .

The fourth hypothesis is; providing learning opportunities and environments to suit employees' learning styles will influence the performance outcome of the individuals directly and organizations indirectly. Learning style of each respondent was measured by the learning style inventory on the last page of questionnaire packages. Each individual is classified as predominantly visual, predominantly tactile, or predominantly auditory learner according to the total score of this test. The first premise the hypothesis is build upon is that if the learning style of an individual is predominantly visual and if there are lots of available visual learning sources in the organization, than it will affect the performance of the individual, and associated with it the salary and promotion status of individual will be affected. Since the performance of an organization is somewhat dependent on the performance of its constituent individuals, it is also expected that if there is such favorable learning environment, unavoidably the organization will take its share. Therefore, on the first page of questionnaire package, there was a section investigating the number of available learning sources in the organization which are classified in the literature as predominantly visual, tactile, and auditory learning sources. This section gives data on what type of learning source is the most available to each respondent in the organization he works for. After all, if the predominant learning style of a respondent is the same with predominant type of learning sources available

in the organization, this is coded as there is accord (entered as 1); reversely, if there was no overlap, this is coded as no accord (entered as 0).

Because most of the data is composed of frequencies of people classified according to dichotomous variables (as accord-no accord, salary increase-no salary increase, production increase-no production increase, etc.), and not scores, crosstabs analysis and chi-square statistic is needed. Below are the crosstabs for “accord \* promotion in last three years” and for “accord \* salary increase in last three years.”

Notice that finding the same proportions in the cases of crosstabulation indicates no relationship. On the other hand, if the proportions are different and favoring just one direction, it would suggest that there is a relationship. It seems that the proportions below are quite different, but not in the same direction which is exactly contrary to what is expected according to the hypothesis. The table shows that people who reported accord and promotion at the same time are only 10 people, and the people who reported no accord and promotion are many more (N= 18) than that. Additionally, people who have no accord and no promotion (N= 9) is more than the people who have accord and no promotion. Therefore, this part of the hypothesis was not warranted. Yet, to assure the results, Pearson chi-square was calculated. The second table below shows that the groups who have accord and who have no accord do not really differ from each other on their promotion status significantly  $X^2(1, n=42) = .000, p < .05$ .

The fifth hypothesis is; when there is a mismatch between individual learning styles and learning sources available in the organization, dissatisfaction with learning sources occurs. The mismatch is a position where there is no accord between the predominant learning style of a respondent and the learning sources available in the organization, in other words it is disaccord. An independent measures t-test showed that people who reported accord, and disaccord do not significantly differ in their satisfaction with learning sources,  $t(40) = -.28, p > .05$ .

## 5. DISCUSSION

Taken together, the results have shown that there is a relationship between a positive learning environment in an organization and individual and organizational performance outcomes. On the other hand, no relationship was found between the “overlapping of individual learning styles with the type of learning sources provided within the organization” and “individual and organizational performance”. In other words, the connection between the “individual learning styles” and the “matching of learning sources with the individual learning styles” do not have any significant effect on individual and organizational performance. In addition, the mismatch between the individual learning styles and learning sources does not significantly effect the satisfaction of individual with learning sources in an organization. It is thought that there is a strong need for determining the place of organizational learning on performance outcomes. In this study, the members belong to various companies and the companies are not functioning in the same business sector. So, benchmarking studies which analyze the performance of companies in the same sector is requested. The need for collecting more details about the companies and their organizational learning practices can be better fulfilled. For instance, observation at organization and financial performance statistics of an organization as published by economic resources may be more reliable than personal beliefs and estimations.

Rather than spreading out the questionnaire to groups of people in a conference, it may also be chosen to spread the instrument individually. In an open place where the businessmen fill out the questionnaire together and during the conversation with each other, it is possible to give incorrect answers about the personal promotion, increase in the salary, available learning sources in the organization and satisfaction with the learning sources. It is

thought that there is /may be a general belief among managers that whatever their conditions and situation in the organization, they reflect their organization as fully functioning one without any serious problem.

One other issue may be about the learning style of an individual. There are many theories regarding individual learning style. In this study, the styles are taken from the theory of accelerated learning which is thought to be suitable for research in organizations. Other theories may be considered and a compact questionnaire which includes the individual learning styles including their cognitive styles may be formed to explain the results according to various theories. This is thought to be more effective for the practical use and practical application of the research findings in the organizations.

Once more, it can be said here that organizational learning or learning organization concepts are not the only factors for increasing the financial performance and growth of an organization. There are a lot of factors which influence the performance of an organization. So, it is thought that further research is needed which includes not only the effect of learning environment but also the effects of power, control and contextual relationships, general economic conditions in a country and environmental and global factors. These factors may also have direct or indirect effect on the organization's financial performance. By including these variables, the role of positive learning environment can be more obvious.

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