The Effects of Science Teachers’ Perception of Learning Organization on Job Satisfaction

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ABSTRACT Learning organizations not only contribute to the organization but also to the employee’s well-being. The approach of a learning organization’s benefits for the employees is as follows: people who work in the learning organizations are happier in their lives. In this research, it was aimed to determine at what levels are the effects of Science teachers’ working for Gaziantep National Education Administration, the perception of a learning organization paradigm on job satisfaction. It will be examined whether science teachers’ perception of learning organization affect their job satisfaction in a positive way. As the relationship between science teachers’ perception of a learning organization on job satisfaction was designated to be examined, the research design was determined to be causal-comparative. The population and sample: this study’s population is primary school science teachers working at primary schools within the Gaziantep city boundary in the 2012-2013 academic years. A randomly selected 99 science teachers from this population is the sample of this research. Two scales were used in order to gather the data for this research: Job satisfaction Scale (Short Form Minnesota Satisfaction Questionnaire- MSQ) and Learning Organization Scale (LOS). Data was analyzed by using the hierarchical multiple linear regression models. Findings of this study indicate that perception of general job satisfaction of teachers’ learning organizations predicts their job satisfaction strongly and positively. In the light of the findings, some recommendations were made.

INTRODUCTION

It has become a necessity to improve quality in all fields and develop new management strategies in view of global competition. The concept of learning organizations as a new management model is adapted as learning organizations. It is crucial for the teachers and the administrators to accept this paradigm of learning organizations so as to improve the education quality at schools, and to raise happy individuals. All structures and organizations, if they want to take a step into the future, should never quit learning (Kocel 2003). Organizations should learn how to learn, and should give importance to team learning. Those learning organizations which are not able to actualize learning will lose their power of competition. Individuals in the organizations ought to gather their individual expertise, open their mental structure to learning, and create synergy.

Learning Organizations

According to Senge (2006), who first introduced the learning organization, “Learning Organizations are the places where individuals improve their capacity steadily in order to get the truly desired results. New ways of thinking, push the emerging boundaries, human beings continuously learn how to learn cooperatively”. According to Garvin (1999), learning organizations have the skill to create, attain, transfer knowledge, and reflect the behavior gained. Rosen (1998) stated that “it is the organization which encourages and nourishes the employee’s development, and regards learning as an investment to improve the success and the capacity of the business, therefore, it provides opportunity for learning and improvement, and creates a learning environment.

Senge (2006) expressed five disciplines of learning organizations; mental models, shared vision, team learning, systems thinking, and personal mastery. Learning organizations’ five disciplines are explained as follows: Personal mastery: it is one’s approach to his life as an artist does to his art, or to lace one’s life up meticulously like embroidery. Mental models: deeply ingrained assumptions, generalizations, or even
images that influence how we understand the world and how we take action. These models effect how we perceive our life. Shared vision: it is the target aimed which is meaningful for everyone, and is important, and believed. A vision which is determined together, important, meaningful, valuable, and exciting for everyone brings the motivation with itself. Team learning: team learning discipline includes the skill of transforming the differences among the team members into richness, getting the contributions of the individuals who stay outside the team, thinking, applying together, getting results which are greater and permanent than individual results. System thinking: it enables us see the whole picture, and think cooperatively. Provided that we analyze the events alone, we cannot see the relations among them and cannot see the greater system structures which build them (Calkavur 2006).

The most important characteristics of learning organizations are that they are sensitive to changes. The need to change will be determined by both outcome and organization. Organizations become both learning and teaching organizations during the time of change. Learning is one of the most important elements of the information age, and is one of the central elements in terms of the new system’s improving itself (Toremen 2002).

Learning organizations are ones which have the necessary infrastructure and culture to support the organizational learning process. Individuals are seen as persons who take part in this process actively, and mediate the change. Organizational learning is the capacity of transforming cultural values and the infrastructure targets of an organization which changes according to the environmental factors. Therefore, learning organizations are dependent on the individual and organizational change. Organizations which empower the employees and ensure them to take part in learning opportunities on the individual level, are becoming more successful in organizational learning and transformation (Perkins et al. 2007)

Organizational learning is the use and absorption of knowledge to improve performance. One of the factors that hinder the increase of organizational performance is the lack of organizational learning (Shek Pui Wong et al. 2008). Research about the organizational learning put forth new perspectives about learning. Learning is not only individual but also it can be achieved on the organizational level if appropriate learning conditions and opportunities are provided. Organizational learning is more complex than the sum of individual learning. One of the most important factors of being a learning organization is learning individually, as a group and on the organizational level (Amiri et al. 2010).

Coppieters (2005) categorizes the most important characteristics of learning organizations under the title of school vision and target, school culture, school structure, school strategies, politics, and resources. In regard to characteristics of learning organizations, three dynamics can be mentioned. These three dynamics are as follows:

1. Learning organizations have relations with knowledge
2. They have the mechanism of renewing themselves
3. They are open to the outside world. Therefore, they are sensitive to what happens in the world, and they are responsive (Mills and Friesen 1992).

Personal mastery is the steady improvement of one’s self-efficacy and individual capacity in order to reach goals. An organization’s efficacy and efficiency can be enhanced by being a learning organization (SeokHee et al. 2007). Organizations can only flourish by individual learning. Individual learning basis does not mean the whole organizational learning; however, organizational learning cannot be achieved without individual learning. Therefore, the main motivation factor in the improvement of the organizations is the individual mastery (Chich-Jen Wang and Fu-Jin 2009).

Then, individuals should systematically practice teamwork within the organizations, as in the collaborative work in the villages, and as in football; they ought to step in when needed and be part of ‘a team game’ (Demir 2011). In fact, a learning organization is not an administration model but an administration idea or an administrative philosophy. In order to be competitive in a strong changing environment, all companies have to learn both the internal mechanism, namely its process, structure and ability to administer the systems and be able to learn to adapt changes happening in the exterior environment. Many events happening in the organizations rely on learning (Savas and Dos 2010).

Provided that this point of view is dealt with on the basis of organizations, learning organiza-
Learning organizations are groups of human beings steadily improving themselves both individually and together so as to reach a desired common future (Calkavur 2006). Learning organizations provide an opportunity to explore our abilities, and aims to reach the deepest values such as commitment to each other, collective effort, and mind. It makes a logical explanation of why people need other people, by supporting the basic passion of learning while aiming to enrich it. It may bear a torch to organizational development by gaining a technical approach (Toremen 2001).

Learning organizations are the ones where learning becomes a basic value and a natural process. There are some characteristics which differentiate learning organizations from other organizations. In the learning organizations, learning is not an extra burden added to the work but an ordinary part; learning is not spontaneous but a process. In all relations, there is cooperation; while the individuals improve themselves, they improve the institutions.

Learning organizations learn with a clear understanding crossing the frontiers with a team spirit. As they evaluate what they learn, they begin to understand how they learn. They swiftly transform the data into useful knowledge in the right place and time. They have the understanding of how to motivate employees. They take risks without jeopardizing the organizations' basic structure and elements (Calik 2003).

The main nuance which differentiates the learning organizations from other organizations is that: they have the skill of systematical problem solving, trying new approaches, taking lessons or benefiting from mistakes or his rivals’ errors, and effective and swift knowledge transfer in the whole organization (Incir 1990).

Organizations, which will be successful in the future besides having learning capacity and desire on the individual and organizational basis, will be able to produce valid and reliable knowledge while applying it to new fields. Organizations’ learning and having only certain and stereotypical knowledge will not be sufficient, they will have to generate new information, and will have to use the knowledge as a production factor by applying the knowledge and accumulation to the new fields (Calik 2003).

**Job Satisfaction**

Employees spend one third of their life at work. To have a job, and work in human life has a crucial place in terms of providing the needs in the psychological and social dimensions (Sarabakhsh et al. 1989). The outcomes of a job for a worker are not only for sustaining life but also for social and psychological needs. With work, besides obtaining social status, economic welfare and a living standard, an individual gains certain psychological benefits. Some of these are: job satisfaction, feeling happy, being known, being appreciated, being successful, and proving himself etc. (Kalleberg and Loscocco 1983).

In this sense, rather than economic benefits, employees can be happier with the psychological acquisitions (Bakan and Buyukbese 2004). The importance of job satisfaction is seen here with a person’s well-being.

There are many evaluations and definitions of job satisfaction which affects employees’ efficiency. According to Vieira (2005) with its shortest definition, job satisfaction is the joy of an employee at work. Job satisfaction can be expressed as satisfaction or dissatisfaction at work (Gunbayi 2000).

Locke (1976), defined the job satisfaction as “the employee’s expression of pleasure occurring himself by evaluating his work or work life. In this sense, an employee’s having a high job satisfaction level puts forth the fact that he generally loves his job and has a positive attitude towards the job (Testa 1999; Davis 2004).

Job satisfaction comprises the universal feelings about a job. Terms such as loving the job, dedicating yourself to a job, loyalty to a job are used for job satisfaction, which is an abstract term (Incir 1990). According to Spector (1997), it is a behavioral reaction of employees whether they like or dislike their job. If an employee evaluates his job and his job cannot create a situation where he feels pleasure or a positive feeling, dissatisfaction will occur. A disgruntled employee isn’t happy at work and in his social life. He gives trouble to his family and friends, and makes them unhappy as well (Sun 2002).

Cranny et al. (1992) define job satisfaction as “an emotional reaction he feels for the job after an evaluation between his aspirations and his satisfaction level. It is about how much an employee’s aspirations are satisfied at work and what result they attain (Eren 1998). Job satisfaction occurs when salary, job description, friendships, job’s characteristics and employer’s demands match. It can belong to a group or an individual. Moreover, it can be a part of a job of
an employer. An employee may only be satisfied with certain parts, and may not be satisfied with the other parts (Kalleberg 1977).

It is proportional with an employee’s aspirations from his job and what he gets at work. If his aspirations are much more than his work output, dissatisfaction occurs (Kreitner and Kinicki 2004). A person hopes to see that both the work he does satisfies his certain needs, and the job undertaken is suitable for his personal values. Shortly, job satisfaction is the sum of the attitudes of employees towards their jobs (Erdogan 1999). Job satisfaction can be handled as a term defining an employee’s attitudes and feeling towards employer’s work. In this case, positive and acceptable attitudes towards a job mean satisfaction, whereas negative and unacceptable attitudes towards a job mean dissatisfaction (Gunbayi 1999).

Ensuring job satisfaction has a great number of benefits both for the employee and the organization. It is an attitude which is connected with many variables like life satisfaction from a person’s view and performance, and organizational commitment from the organization’s point of view (Yüksel 2003).

A positive relationship between job satisfaction and life satisfaction can be mentioned (Keser 2005). Generally, it means a joy in a person’s life, happiness, and well being. In this sense, job satisfaction has a great importance in human life. An employee who is satisfied with his job will have joy in life (Uyguç et al. 1998).

In today’s market conditions, organizations have to use the current employees’ effectiveness and efficiency in order to sustain their existence and competition. One of the first things management should do is to improve the performance of the employees. Employees’ high job satisfaction enable them reach peak performance (Erdil et al. 2004). Therefore, the organization’s managers have start dealing with their employee’s job satisfaction (Cetinkanat 2000). It can be stated that it is necessary to make the employees interested and involved in their jobs for the organization’s success.

The Relationship between Learning Organizations and Job Satisfaction

Learning organizations not only contribute to the organization but also to the employee’s well-being. The approach of a learning organization’s benefits for the employees is as follows: people who work in the learning organizations are happier in their lives. Learning organizations give their employees the hope that the future will be prosperous. Learning organizations supply an appropriate field for productive minds. Learning organizations provide a secure port to take risks with new ideas. Each person’s idea is taken into consideration in a learning organization (Toremen 2001). Research points out that job satisfaction, which is an important job output, is influenced from organizational culture and organizational structure (Egan et al. 2004). In this sense, with empowering the employees, participating in the administration, which are sub dimensions of organizational culture, employees’ job satisfaction will increase (Daniels and Bailey 1999; Johnson and McInty 1998). It was determined that job satisfaction and performance increased in the organizations where leadership behavior inspires team work and where learning organizations challenge the traditional system (Gaertner 2000). Research of job satisfaction in learning organizations is an important research topic so as to increase the efficiency of the organizations (Lim 2011; Allamah and Abbasi 2010).

Significance of the Study

This research has a theoretical and practical importance. The reason why it has theoretical importance is that the research result about the relationship between the organizational culture and job satisfaction will provide invaluable information for the Human Resources experts. The fact is that job satisfaction is a variable which has a strong effect on the organizational work outputs, for example, work performance, job turnover, irregular attendance at work (Judge et al. 2001). If the there is a positive relationship between job satisfaction and organizational culture, the learning organization model will have some practical benefits for education experts. Furthermore, the result of this research will have a pivotal role for education administrators and Human Resources experts, and will guide them accordingly. Because learning organizations will guide them when they design the systems and organizational processes, choose the human resources, make them work, motivate them in various tasks. The result of this research will enlighten the future research which will be done
on the effect of learning organizations’ culture on working teachers.

The Aim of the Study

In this research, it was aimed to determine at what levels are the effects of Science teachers’ working for Gaziantep National Education Administration, the perception of a learning organization paradigm on job satisfaction. It will be examined whether science teachers’ perception of learning organization affect their job satisfaction in a positive way.

METHODOLOGY

As the relationship between science teachers’ perception of a learning organization on job satisfaction was designated to be examined, the research design was determined to be causal-comparative. According to the causal-comparative model (Fraenkel and Norman 2008; Buyukozturk et al. 2008) the reasons for an event or a case is examined in the context of reason-result.

The population and sample: this study’s population is primary school science teachers working at primary schools within the Gaziantep city boundary in the 2012-2013 academic years. A randomly selected 99 science teachers from this population is the sample of this research.

Data Collection Instruments

Two scales were used in order to gather the data for this research. Job satisfaction Scale (Short Form Minnesota Satisfaction Questionnaire- MSQ) was developed by Weiss Davis and England (1967). The Turkish adaptation was performed by Baycan (1985). To measure the organizational perception Learning Organization Scale (LOS), developed by Subas (2010), was used. LOS which is composed of 5 sub dimensions and 30 items has a Cronbach’s alpha reliability coefficient of 0.874. LOS is a 4 point Likert type scale with a sum of 120 points.

Data Analysis

Data was analyzed by using the hierarchical multiple linear regression models. Before starting the analysis, data was examined in terms of missing data values, outlier values, normality, multi-change, in other words the analysis’ assumptions were tested. In our research model, the dependent variable is teachers’ job satisfaction. While examining the effect of a learning organization variable predicting job satisfaction, variables like gender, age, tenure, and education were controlled in hierarchical multiple linear regression. The model aimed to be tested: “science teachers’ perception of a learning organization positively affects their job satisfaction”.

RESULTS

The frequency table of Science teachers by their gender, tenure and age variable were shown in Table 1.

Table 2: According to a study conducted with the dimensions of job satisfaction and LOS and overall arithmetic mean

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>X_mean</th>
<th>S.E.</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction</td>
<td>99</td>
<td>1.70</td>
<td>5.00</td>
<td>3.6094</td>
<td>0.05020</td>
<td>0.70641</td>
</tr>
<tr>
<td>Overall learning organization</td>
<td>99</td>
<td>2.28</td>
<td>5.00</td>
<td>3.9302</td>
<td>0.03922</td>
<td>0.55184</td>
</tr>
<tr>
<td>Personal mastery</td>
<td>99</td>
<td>1.67</td>
<td>5.00</td>
<td>4.1650</td>
<td>0.04899</td>
<td>0.68933</td>
</tr>
<tr>
<td>Mental models</td>
<td>99</td>
<td>2.00</td>
<td>5.00</td>
<td>4.0263</td>
<td>0.04787</td>
<td>0.67359</td>
</tr>
<tr>
<td>Building shared vision</td>
<td>99</td>
<td>1.14</td>
<td>5.00</td>
<td>3.6232</td>
<td>0.05428</td>
<td>0.76377</td>
</tr>
<tr>
<td>Team learning</td>
<td>99</td>
<td>2.00</td>
<td>5.00</td>
<td>3.8367</td>
<td>0.05525</td>
<td>0.77741</td>
</tr>
<tr>
<td>System thinking</td>
<td>99</td>
<td>2.00</td>
<td>5.00</td>
<td>4.0482</td>
<td>0.04941</td>
<td>0.69522</td>
</tr>
</tbody>
</table>
In terms of gender, the majority of the teachers are males (54.9 %). In the age demographic, young teachers under 30 constitute the majority: 57.3 %.

The mean and standard deviation of the answers given to the job satisfaction and LOS scale by the science teachers were given in Table 2.

When looking at the table, it is apparent that the science teachers’ learning organization perception scores are high in the range of “I agree—strongly agree” (3.4—5.0), and their job satisfaction score is also high in the range of “it satisfies me adequately, it satisfies me greatly” (3.4—5.0).

The results and findings about the hierarchical multiple linear regression, which was done to examine the effect of teachers’ perceptions of learning organizations on general job satisfaction are studied here. As seen in Table 3, after controlling the teachers’ gender, tenure and age variances in the first step, the learning organization perception score was added to the model by enter method in the second step. After the hierarchical multiple linear regression analysis’ result, teachers’ perception of the learning organization predict their job satisfaction level significantly ($\beta = .514$, $p<.001$). 25.3 % of the variance in teachers' job satisfaction is explained in this model by teachers' perception of learning organization ($\Delta R^2 = .253, p<.001$). When we check whether the demographic variances have a significant effect on the variance, it is seen, it does not have a significant effect ($R^2=.013, p>.05$). In this case, almost all of the variance is provided by the perception of the learning organization, and thus our model is meaningful ($F=17.646, p<.001$).

The figure of teachers’ perception of organizational learning predicting job satisfaction was shown in the Figure 1 while controlling demographic variables (gender, education, age and tenure).

In this part, in order to examine the teachers’ learning organization sub dimensions effect on job satisfaction, findings and results are shown in Figure 1, about the hierarchical multiple linear regression analysis. For the relationship between the perception of a learning organization sub dimensions and job satisfaction, after EFA performed in advance, statistically verified mean scores of sub-dimensions were added to the analysis. As a result of the analysis, 5 itemed learning organization sub-dimensions (mental models, shared vision, team learning, personal job satisfaction)

<table>
<thead>
<tr>
<th>Table 3: Results of hierarchical regression analyses of teachers’ job satisfaction on perceptions of learning organization and demographical variables</th>
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<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td></td>
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<tr>
<td>1st step</td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
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<tr>
<td>2nd step</td>
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*p<.05, **p<.01, ***p<.001

Fig. 1. The effect of teachers’ perception of organizational learning on teachers’ job satisfaction levels
mastery and systems thinking) were added to the analysis as an independent variable in the last step with a stepwise method in the hierarchical multiple linear regression.

As seen in Table 4, after controlling gender, tenure, and age variables in the first step, out of 5 sub-dimensions of a learning organization, added to the model by stepwise method, as 3 sub dimensions’ correlation coefficient were determined low by SPSS, it was removed from the model. After performing the hierarchical multiple linear regression analysis, the meaningful predictor of teachers’ general job satisfaction, which is the sub dimension of teachers’ learning organization, is only team learning (β=.334) and systems thinking (β=.256). Team learning and system thinking dimensions which are the sub-dimension of a learning organization, predict the teachers’ job satisfaction significantly, and therefore, our model is meaningful (F=13.845, p<.001).

When gender, tenure, and age, of our demographic variables, are controlled, the 2.5 % of variance in the teachers’ general job satisfaction is explained with team learning and systems learning, which are the sub dimensions of learning organizations (ΔR²=.025, p<.001).

Controlling demographic variables (gender, education, age, and tenure), team learning and systems thinking, which are the learning organizations sub-dimensions, and which predict teachers’ general job satisfaction, were shown in Figure 2.

**DISCUSSION**

After the conclusion of this research, by choosing a sample of 99 science teachers from Gaziantep, perception of general job satisfaction of teachers’ learning organizations predicts their job satisfaction strongly and positively (β=.514, ΔR²=.253, p<.001). This result parallels

| Table 4: Results of hierarchical regression analyses of teachers’ job satisfaction on dimensions of learning organization and demographical variables |
|-------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| **Model** | **Independent Variables** | **B** | **Std. Err.** | **Beta** | **t** | **p** | **F** | **R²** | **ΔR²** |
| 1st step | (Constant) | 3.499 | .345 | 10.149 | .000 | | | | |
| (Enter Method) | Gender | -.065 | .116 | -.046 | -.558 | .578 | 0.965 | .015 | |
| | Tenure | .007 | .014 | .062 | .470 | .639 | | | |
| | Age | .003 | .012 | .036 | .255 | .799 | | | .250*** |
| 2nd step | (Constant) | .814 | .468 | 1.739 | .084 | | | | |
| (Stepwise Method) | Gender | .111 | .107 | .078 | 1.035 | .302 | | | |
| | Tenure | -.012 | .012 | -.110 | -.938 | .349 | | | |
| | Age | .019 | .011 | .220 | 1.749 | .082 | | | |
| | Team Learning | .303 | .068 | .334 | 4.491 | .000 | | | |
| | System Thinking | .261 | .079 | .256 | 3.286 | .001 | | | |

*p<.05, **p<.01, ***p<.001

![Fig. 2. The effects of dimensions of organizational learning on teachers’ job satisfaction levels](image-url)
many research findings (Lim 2010; Hsu 2009; Rose et al. 2009; Chivave and Alegre 2008). Similarly Chang and Lee (2007) found out that learning organization culture positively affects the learning organization process, learning organizations’ process affects the employee’s job satisfaction positively. Allamah and Abbasi (2010) have found that the mediating effects in the relationship between a learning organization’s capacity, and intellectual capital and job satisfaction. After the research on IT employees in the United States, they have found that the learning organization increases job satisfaction and decreases the cost of job turnover. Though much research cannot be found on this topic, Yilmaz (2005) has researched the relationship between perception of a learning organization of nurses working at a state hospital and their job satisfaction, and found a positive relationship. It was seen that teachers’ perception of team learning and system thinking, which are sub-dimensions of learning organization scale, predicts their job satisfaction meaningfully. Likewise, Drani (2009), though he found that system connectedness, which is a sub-dimension of the learning organization, predicts job satisfaction, he found that team learning does not predict job satisfaction meaningfully.

CONCLUSION

As a conclusion, teachers’ perception of the learning organization predicts their job satisfaction level significantly. Team learning and system thinking dimensions which are the sub-dimension of a learning organization, predict the teachers’ job satisfaction significantly.

RECOMMENDATIONS

Suggestions for future researchers can be stated as follows: this study is limited to the Turkish teachers in Gaziantep. Researchers may repeat the research in another country or city with different sample groups. This research data was collected from the teachers as a self-report. Researchers can make analyses by gathering data from the school directors and parents. For an output in this research, job satisfaction was chosen as a dependent variable. Researchers can make different research with different variables like job performance, burnout, and irregular attendance as a work output.

In order to improve the quality of education, National Education administrators need to take steps to spread the learning organization idea. In this context, the first thing to do is to gauge if the schools are ready and eager for this subject. This and other similar research will enlighten the country leaders. Administrators of National Education should create awareness about the learning organization concept for the students of education faculties by cooperating with the universities in order to create the learning schools paradigm. In addition, workshops and seminars should be given to the current teachers and administrators about what to do in search of a learning school.

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