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# EFFECTS OF SOCIO-DEMOGRAPHICAL FACTORS ON MASLOW'S NEEDS OF HIERARCHY: AN APPLICATION ON EDUCATORS IN DIFFERENT POSITIONS IN ANKARA\*

SOSYO DEMOGRAFİK ÖZELLİKLERİN MASLOW'UN İHTİYAÇLAR HİYERARŞİSİ ÜZERİNDEKİ ETKİSİ: ANKARA'DA FARKLI KADEMEDEKİ EĞİTİMCİLER ÜZERİNE BİR UYGULAMA

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The aim of this study is to determine the effects of socio demographic factors of educators on each of Maslow's needs via a Chi-Square analysis based, visual decision tree method. With this purpose, the effects of the socio-demographical factors such as gender, occupational status, year of experiences, brunch and education level among teachers, school directors, and inspectors on five motivational needs which are physiological, safety, love and belongingness, esteem and self-actualization described by Maslow (1943/1970) were examined by paired sample t test, Correlation analysis and Chi Squared Automatic Interaction Detection (CHAID) analysis.

The study is based on randomly selected 2003 educators in Ankara-Turkey. Some descriptive statistics and figures that show the significant variables on educators' needs are given in related tables and figures. According to the results of the analysis, while needs of Safety found the most important need with the mean score of 4,53 over 5, needs of belonging found less important than the other needs with the mean score of 4,01. Results show that these needs of the educator are not met enough. Meeting these needs is important for the educators to conclude their works more motivated. There found statistically significant correlations between all the needs of educators as a result of correlation analysis. There also found a significant difference between the needs of

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<sup>\*</sup> This study is performed from Başak Cengiz Erdoğmuş's M.S. thesis, supervised by Mustafa Aydın BAŞAR at Çanakkale Onsekiz Mart University, Institute of Social Sciences, 2007.

the educators, as a result of the paired sample t test. Results of CHAID analysis showed that while the experience of the educators is the most important factor on Physiological Belonging and Self-Actualization needs, gender is the most important factor on Safety and Esteem needs.

**Key Words:** Motivation, Job Satisfaction, Maslow's Needs of Hierarchy, CHAID Analysis

### Özet

Bu çalışmanın amacı eğitimcilerin sosyo-demografik özelliklerinin Moslow'un ihtiyaçlar hiyerarşisi üzerindeki etkilerini Ki-Kare analizi temelli, görsel bir sonuç veren karar ağacı metodu ile incelemektir. Bu amaçla öğretmen, okul müdürü ve müfettişler için cinsiyet, mesleki statü, tecrübe branş ve eğitim seviyesi gibi sosyodemografik faktörlerin etkisi, Maslow (1943/1970) tarafından motivasyon üzerine; psikolojik, güvenlik, sevgi ve ait olma, saygı ve kendini gerçekleştirme ihtiyacı olarak tanımlanan beş ihtiyaç, bağımlı örneklemler t testi, korelasyon analizi ve CHAID (Chi Squared Automatic Interaction Detection) analizi ile incelenmiştir.

Çalışma, Ankara-Türkiye'de rassal olarak seçilen 2003 eğitimci üzerinden gerçekleştirilmiştir. Bazı betimleyici istatistikler ve eğitimcilerin ihtiyaçları üzerinde anlamlı etkiye sahip değişkenlerin yer aldığı grafikler ilgili tablo ve şekillerde verilmiştir. Analiz sonuçlarına göre, güvenlik ihtiyacı, 5 üzerinden 4.53 ortalama puan ile en önemli ihtiyaç olarak belirlenirken, ait olma ihtiyacı ise 4.01 ortalama puanı ile diğer ihtiyaçlara nazaran önem derecesi en az bulunmuştur. Sonuçlar eğitimcilerin bu ihtiyaçlarının yeteri kadar karşılanmadığı göstermektedir. Bu ihtiyaçların karşılanması, eğitimcilerin daha motive olmuş bir biçimde işlerini yapabilmeleri açısından önemlidir. Korelasyon analizi sonuçlarına göre tüm ihtiyaçlar arasında istatistiksel olarak anlamlı korelasyonlar belirlenmiştir. Ayrıca bağımlı örneklemler t testi sonucunda da eğitimcilerin tüm ihtiyaçları arasında anlamlı farklılıklar bulunmuştur. CHAID Analizi sonuçları da psikolojik, ait olma ve kendini gerçekleştirme ihtiyaçları üzerinde en etkili faktörün eğitimcilerin tecrübelerinin olduğunu gösterirken, Güvenlik ve saygı ihtiyaçları üzerinde en etkili faktörün cinsiyet olduğunu göstermiştir.

**Anahtar Kelimeler:** Motivasyon, İş Memnuniyeti, Maslow'un İhtiyaçlar Hiyerarşisi, CHAID Analizi

# Introduction

Motivation is a quite complex, ongoing and dynamic as well as subtle process which can be observed only from continuous stream of behaviors, attitudes, abilities, skills, and personality (Muchinsky, 1999). Work motivation is a domain of motivational processes which can be defined as the set of energetic forces stemmed from hereditary and environmental factors in order to initiate work-related behaviors and to determine its form, duration and direction (Latham and Pinder, 2005). Since 1970s, because work motivation has been associated with job satisfaction, job performance, job attitudes or affective responses toward work environment such as how individuals feel about what they do when they work, one of the most prominent areas of study in the fields of organizational psychology and management has become work motivational processes, work motivation theories and need-satisfaction models (e.g., Salancik, and Pfeffer, 1977).

The various studies have revealed that environmental, social, dispositional and cognitive factors have been associated with work motivation and job satisfaction as well as job performance (e.g., Stempien, and Loeb, 2002; Caprara et al., 2006; Judge, and Bono, 2001). Surely, one of the most well-known work motivation theories is *Needs of Hierarchy Theory* 

derived from motivation and personality theory of Abraham H. Maslow (1943/1970) who is one of the greatest scholars in humanistic psychology. Briefly, in his needs of hierarchy theory which becomes very popular in organizational and management literature by other researchers following Maslow, the source of motivation is certain needs which are biological and unconscious, whereas their satisfaction styles or tools are cultural. The sequential satisfactions of these needs are the essential characteristics of life. These five types of needs are, firstly physiological such as survival needs air, water and hunger, secondly safety such as freedom from threat, and danger, thirdly, love and belongingness such as social and desire for companionship, esteem such as self-confidence and respect from others and lastly selfactualization such as capability of becoming oneself, fulfillment of inner potentials. In this hierarchical pyramid, there is a general pattern of personal needs which requires a satisfaction through a sequence. More concretely, according to Maslow (1970), if a person who fails to satisfy the certain need, he can not pursue or follow the next higher need in the pyramid. Once a need is fulfilled, it no longer motivates people and one can progress through other above needs respectively. Maslow (1970) suggested that only few people can able to reach the highest level of need of self-actualization.

In terms of organizational context, Maslow's needs are considered as physiological needs such as physical working conditions, space or lighting, safety needs are work applications, love needs are forming working teams, participating social organizations, esteem needs reflect responsibility and appreciation and self-actualization needs are being creative (Latham, and Pinder, 2005).

When an employee makes a progress in his career steps, his employer may provide some opportunities to satisfy the further needs on the basis of Maslow's pyramid (Gawel, 1997). For instance, in a job setting, when payment and security conditions are very lower, it is very hard to observe work-related behaviors for the satisfaction of need for self-esteem among employees or on the other hand, as work conditions improve, work itself can be a part of selfactualization process rather than fulfillment of basic needs. The more employees meet their needs, the more they get satisfaction from their jobs and are motivated as well. In a similar vein, in educational settings, schools can be categorized as an organization including similar but different characteristics from other companies. All of the parties namely, administrators, inspectors, educators and students have different responsibilities of school organization. In terms of educators, it is obvious that teachers' motivational levels are influenced by their satisfied needs. Congruently, recent studies have revealed that intrinsically motivated teachers tend to show more autonomy-supportive behaviors rather than tend to control and judge the students, which increases the students' intrinsic motivation to learn as well (Reeve, Bolt, and Cai, 1999). Nevertheless, it is clear that teaching profession is highly demanding in all cultures and includes mostly organizational stressful conditions such as work overload, classroom climate, dealing with students' needs, discipline problems pressure from superiors or absence of peer support and role conflicts which easily lead burn-out syndrome and at least job dissatisfaction among teachers (Byrne, 1994; Skaalvik and Skaalvik, 2010; Skaalvik and Skaalvik, 2011). These factors impact teachers' both motivational beliefs and job satisfaction (Skaalvik and Skaalvik, 2011).

In Turkish literature, there have been several studies on the relationship between sociodemographical features such as gender, age and experiences and job satisfaction in various organizational settings (e.g., Bilgiç, 1998; Toker, 2007; Koç, Yazıcıoğlu, and Hatipoğlu, 2008),

these studies revealed mixed results. For instance, both Bilgiç (1998) and Toker (2007) found that gender did not lead to significant differences in job satisfaction in blue-collar workers. However, Toker (2007) displayed that there is a positive relationship between age and job satisfaction. When ages of workers increase, their satisfaction levels from their jobs also increase. Koç, Yazıcıoğlu, and Hatipoğlu (2008) conducted a study on the associations of teachers' socio-demographical characteristics, job satisfaction and job performance revealed that neither gender nor age had significant effects in the prediction of job satisfaction. However, teachers with higher income reported greater job satisfaction. Regarding motivational processes, these researchers indicated that teachers who like teaching and think their careers suit their personality reported greater job performance and satisfaction. In sum, although there have been extensive studies separately on job satisfaction, job performance and self-efficacy of teachers or students in both Western and Turkish literature (e.g., Skaalvik, and Skaalvik, 2011; Judge, and Bono, 2001; Jennett, Harris, and Mesibov, 2003; Bilgiç, 1998; Toker, 2007; Koç, Yazıcıoğlu, and Hatipoğlu, 2008), and Maslow's hierarchical needs in marketing and organizational psychology (e.g., Yalch, and Brunel, 1996), little research has focused merely on relationship of Maslow's motivational needs of teachers, directors, and school inspectors in school context. Hence, in this study, it is aimed to examine the socio-demographical factors such as gender, year of experiences and occupational status of primary teachers, school directors and inspectors related to their work environments on their motivational needs described by Maslow (1943/1970).

### Material and Method

For sampling, in order to increase representativeness of the sampling firstly cluster sampling and then stratified sampling technique were used. In cluster sampling, the city was distinguished into two clusters on the basis of geographical characteristics of Ankara. The first cluster included counties of city center, the second cluster included other counties. Specifically, 8 counties with 535 schools from the first category, 16 counties with 290 schools were determined.

After determining the sample, the pilot study was carried out on 10 school directors, 50 teachers and 10 inspectors chosen from main data. On the basis of this pilot study, Cronbach's alpha reliability coefficient of the Maslow's Hierarchical Needs Questionnaire was calculated as 94 indicating the questionnaire was a reliable instrument. For the main data, determined schools were visited and out of 2100 questionnaires, 2003 questionnaires were used for the following main analysis because of missing or incorrect completion of the questionnaires.

The main sample in this study was composed of totally 2003 participants (1080 female, 923 male) including 1853 teachers (1043 female, 810 male), 75 school directors (23 female, 52 male) and 75 inspectors (14 female, 61 male) working at different primary schools of Ministry of National Education in Ankara city, the capital of Turkey between the dates February 15 – May 15 2007. In terms of year of experiences of teachers, out of 1853 teachers, 19.6% of between 1-5 year, 26.8% of 6-10 year, 21.7% of 11-16. The descriptive statistics are also given in Table 1.

The questionnaire of Maslow's needs was developed on the basis of theoretical background and extensive literature by the researchers. It includes 25 items with a 5-point Likert type ranging from "strongly disagree" to "strongly agree". Items 1, 6, 11, 16, 21 reflect physiological need, items 2, 7, 12, 17, 22 reflect safety needs, items 3, 8, 13, 18, 23 reflect love and belongingness need, items 4, 9, 14, 19, 24 reflect esteem needs and lastly items 5, 10, 15, 20, 25 reflect self-actualization needs (for details see; Erdoğmuş, 2007). For these items, low mean

scores corresponds that participants' related needs are much met than the others whose mean scores are high.

At the first step of the analysis, descriptive statistics are obtained and, correlation and paired sample *t* tests are applied to related data set. Then Chi Squared Automatic Interaction Detection (CHAID) analysis is applied to determine the effective factors on the needs of the educators.

CHAID proceeds in steps. First the best partition is found. Then the predictors are compared and the best one chosen. The data are subdivided according to this chosen predictor. Each of these subgroups are re-analyzed independently, to produce further subdivisions for analysis. The type of each predictor determines the permissible groupings of its categories, so as to build the contingency table with the highest significance level according to the chi-squared test (Kass, 1980).

**Table 1.** Frequencies and Percentiles of Socio-Demographic Variables

Variables		Levels	N	%
Occupational (Position)	Ct. t	Teacher	1853	92.5
	Status	Director	75	3.7
		Inspector	75	3.7
Gender		Female	1080	53.9
		Male	923	46.1
Years of		1-5 Year	370	18.5
		6-10 Year	508	25.4
		11-16 Year	419	20.9
Experience		16-20 Year	222	11.1
		20+ Year	484	24.2
		Pre Bachelor's	266	13.3
Education		Bachelor's	1486	74.2
Level		Master	185	9.2
		Ph. D.	13	0.6
		Other	53	2.6
Branch		Classroom	897	44.8
		Social Science	151	7.5
		Mathematics	140	7
		Gym	58	2.9
		Music	32	1.6
		Computer	34	1.7
		Turkish Language	154	7.7
		Religion	38	1.9
		Science	134	6.7
		Foreign Language	98	4.9
		Drawing	32	1.6
		Technology	88	4.4
		Other	147	7.3

## **Data Analysis**

Descriptive statistics, correlation coefficients and paired sample t test results are given in Table 2, Table 3, and Table 4 respectively.

**Table 2. Descriptive Statistics for Five Needs** 

Maslow's Needs	Mean	N	Std. Deviation	Std. Error Mean
Physicological	4.3175	2003	.57004	.01274
Safety	4.5330	2003	.48416	.01082
Belonging	4.0199	2003	.57970	.01295
Esteem	4.1597	2003	.56435	.01261
Self Actualization	4.4340	2003	.52344	.01170

According to the results given in Table 2, while Safety needs is the most important need, the last important needs is Belonging needs with the mean scores of 4,533 and 4019 respectively among 2003 educators, school directors and inspectors.

Table 3. Results of Correlation Analysis for Five Needs

Paired Needs	N	Correlation	Sig.
Physicological & Safety	2003	.614	.000
Physicological & Belonging	2003	.547	.000
Physicological & Esteem	2003	.484	.000
Physicological & Self_Actualization	2003	.485	.000
Safety & Belonging	2003	.554	.000
Safety & Esteem	2003	.485	.000
Safety & Self_Actualization	2003	.573	.000
Belonging & Esteem	2003	.684	.000
Belonging & Self_Actualization	2003	.595	.000
Esteem & Self_Actualization	2003	.671	.000

According to the correlation analysis results given in Table 3, it can be seen that all the correlations are statistically significant. While the highest correlation is between esteem and self\_actualization needs with the coefficient of 0.671, the lowest correlation is between physiological and esteem needs with the coefficient of 0.484. Because there are several different reasons for each needs, there is not much strong but significant relation can be seen from the table.

**Table 4.** Paired *t* test results for five needs

Pairs	t value	d.f.	Sig. (2-tailed)	
Physiological – Safety	-20.540	2002	.000	
Physiological – Belonging	24.353	2002	.000	
Physiological – Esteem	12.262	2002	.000	
Physiological – Self_Actualization	-9.371	2002	.000	
Safety – Belonging	45.067	2002	.000	
Safety – Esteem	31.147	2002	.000	
Safety - Self_Actualization	9.489	2002	.000	
Belonging – Esteem	-13.757	2002	.000	
Belonging - Self_Actualization	-37.157	2002	.000	
Esteem - Self_Actualization	-27.747	2002	.000	

According to the paired sample t test results given in Table 4, the null hypothesis as "There is no significant difference between the needs" is rejected for all pairs of needs. It can be said that there are statistically significant differences between all needs of the educators with a 95% confident.

As it can be seen from Table 4, the highest t statistics among all needs is between safety and belonging needs with a coefficient of 45.067. It can also be seen from Table 2, that the maximum difference is also between these needs again.

The results of the CHAID analysis, which visually show the effective sociodemographic factors on the physiological, belonging, esteem, safety and self\_actualization needs of the educators, are given in Figure 1-Figure 5. Because some of the figures are more detailed, only the most important results of the analysis are explained under related figures.

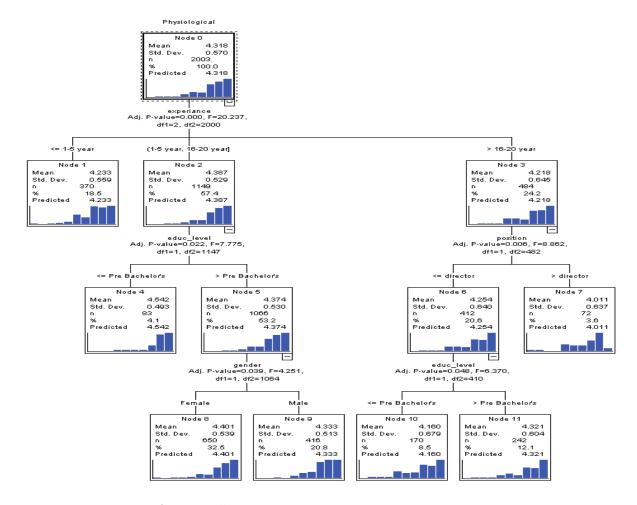


Figure 1: Effective Factors on Physicological Needs

According to the results of the Chaid analysis, given in Figure 1 which shows the effective socio-demographic factors of the educators, it can be seen that physicological needs of all educators have 4.31 mean scores, which means that their physicological needs are almost not

met. It can be also seen that the most important variable on physicological needs is the experience of the educators.

Among educators whose experiances are between 1-5 and 16-20 years and education levels are more than pre-bachelors and gender is female have 4.4 mean scores on physicological needs. Also whose education level is higher than pre-bachelors and position is lower than directors (which means teacher), having more than 16-20 year year of experiences have 4.32 mean scores on physicological needs.

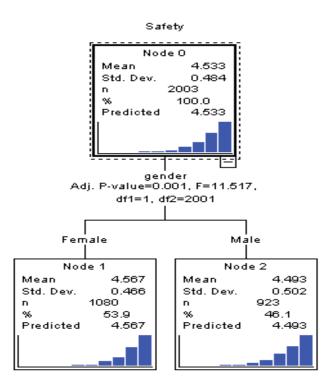
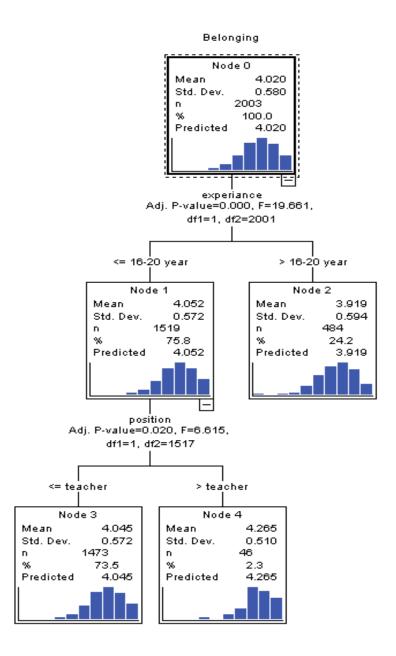


Figure 2: Effective Factors on Safety Needs

According to results of the CHAID analysis given in Figure 2, in terms of educators' needs of safety, it was found that gender of educators is a significant factor. In other words, female educators' safety mean was higher than males' having 4,56 and 4,49 scores respectively.



**Figure 3:** Effective Factors on Belonging Needs

It can be seen from Figure 3, that the belonging needs of the educators have the lowest mean of all the needs with 4,02 mean scores. Effect of the year of experiences is divided into two sub groups. The belonging needs mean scores of the educators whose year of experiences were more than 16-20 years were found as lowest with 3.91 mean score.

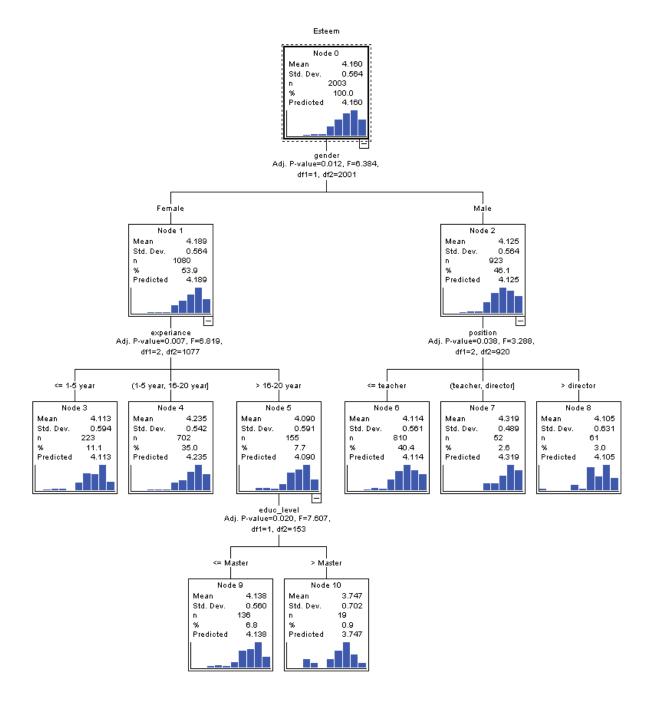


Figure 4: Effective Factors on Esteem Needs

According to results given in Figure 4, gender of the educators plays a major role on their esteem needs. Esteem needs among female educators, whose experience is more than 16-20 years and education level is more than master degree found better than the others with a mean score of 3.74.

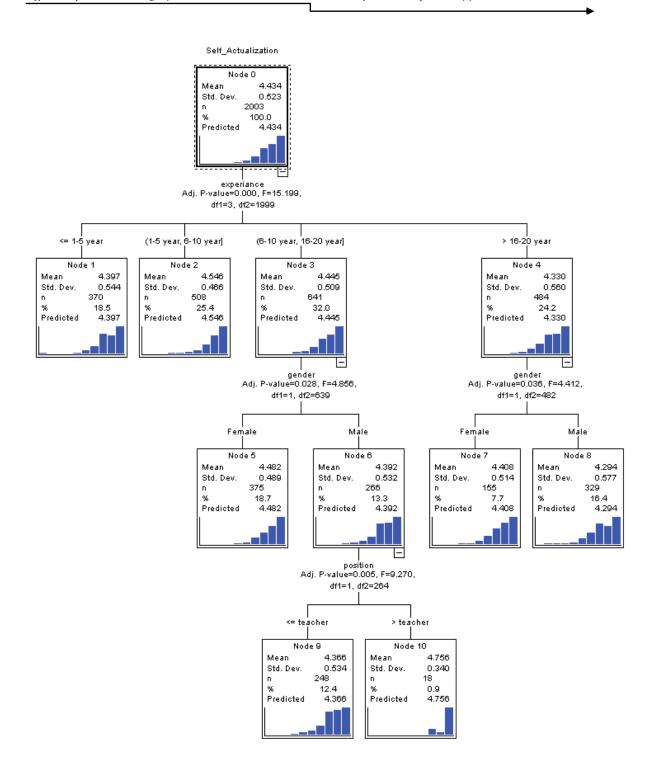


Figure 5: Effective Factors on Self Actualisation Needs

The results of the CHAID analysis, given in Figure 5 shows that, while the educators whose experiences are more than 10 and less than 20 years and gender is male and position is director or inspector has the highest self-actualization needs with a mean of 4.75, male and more than 16-20 years experienced educators has the lowest self-actualization needs with a mean score of 4.29.

### **Conclusion and Discussion**

Motivation is a kind of psychological process derived from the interaction of several individual and environmental factors (Latham, and Pinder, 2005). The basic tenet of motivation lies upon the expectations and needs, goals, and behaviors of individuals as well as the knowledge that given back about their performances. In order to understand the motivational processes exactly, it is necessary to examine the reasons or dynamics of the individuals' behaviors which are forced to, and their goals and the other possibilities of their behaviors to be continued. On the basis of Maslow's (1943) Needs of Hierarchy Theory, the needs are primary sources of motivation. In terms of work motivation, the more employees meet their needs, the more they get satisfaction from their jobs and performed better. Similar to other employees, teachers have endless internal and external problems and desire certain needs to be satisfied in order to function better and intrinsically motivated (Skaalvik, and Skaalvik, 2010, Skaalvik, and Skaalvik, 2011). This decrement of motivation or loss of motivation influence their performances and may also inhibit the students' intrinsic motivations to learn. It is known that there are so many factors on motivational processes and job satisfaction but in this study, we investigated merely the effects of the educators' common socio-demographical characteristics on their motivational needs described by Maslow before.

According to the general findings, in terms of physiological needs, it was found that moderately experience was the most significant predictor of physiological needs. In terms of safety needs, gender was the most significant predictor and females had greater mean scores than males indicating that females give more emphasis to safety needs such as social security, legal rights in protecting employees, the existence of labor unions. In terms of belonging needs, experience was the most significant predictor. Moderately experienced (more than 16-20 years) educators, inspectors and directors have more belonging feelings toward their schools and emphasize team works, coherently working conditions. In terms of esteem needs, gender was the most significant predictor of esteem needs such as respect from colleagues, approval from superiors. In terms of self-actualization needs, it was obtained that experience was the most significant predictor. More specifically, it can also be seen from the related figure that self - actualization needs of male teachers, whose experiences are between 6-10 and 16-20 year, is lower than directors and inspectors.

According to overall results, gender and year of experiences of the educators has significant effects on their needs. Over all the needs, while educators having higher than 16-20 year of experiences have the lowest belonging need with 3.91 mean score, which means that they still have but less expectations than the others to be welcomed, the highest need expectations are for the female educators with 4.56 mean scores in safety needs.

It can also be seen that all of the needs are higher than 4 mean scores at the first steps of the CHAID analysis, which means that expectations of the educators are high enough. While ones may think when compared with the other jobs, the low salaries of the educators in Turkey play an important role and it causes many other problems together, others may think that day by day the needs of them are increasing related with the conditions of new life standards and difficulties of globalization in Turkey. It's also a known fact that education is the most

important factor for human beings to understand and solve the meaning of the life and lead their life in a high quality. At that point problems and needs of the educators are important to be met enough for the well-educated next generations.

# **REFERENCES**

- BİLGİÇ, R. (1998). The relationship between job satisfaction and personal characteristics of Turkish workers. The Journal of Psychology, 132(5), 549-557.
- BOWERS, D.G. (1973). OD techniques and their results in 23 organizations: the Michigan ICL study. Journal of Applied Behavioral Science, 9: 21-43.
- BYRNE, B.M. (1994). Burnout: Testing for the Validity, Replication, and Invariance of Causal Structure Across Elementary, Intermediate, and Secondary Teachers. American Educational Research Journal, 31(3), 645-673.
- CAPRARA, G.V., BARBARANELLI, C., STECA P., and MALONE, P.S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. Journal of School Psychology, 44, 473–490.
- ERDOĞMUŞ B., (2007), Motivation Factors Affecting the Educators in Different Positions. M.S. Thesis, Çanakkale Onsekiz Mart University, Institute of Social Sciences.
- GAWEL, J. E. (1997). Herzberg's theory of motivation and maslow's hierarchy of needs. Practical Assessment, Research and Evaluation, 5(11). Retrieved April 23, 2012 from http://PAREonline.net/getvn.asp?v=5&n=11.
- JENNETT, H.K., HARRIS, S.L., and MESIBOV, G.B. (2003). Commitment to Philosophy, Teacher Efficacy, and Burnout Among Teachers of Children with Autism. Journal of Autism and Developmental Disorders, 33(6), 583-593.
- JUDGE, T. A., and BONO, J. E. (2001). Relationship of Core Self-Evaluations Traits—Self-Esteem, Generalized Self-Efficacy, Locus of Control, and Emotional Stability—With Job Satisfaction and Job Performance: A Meta-Analysis. Journal of Applied Psychology, 86(1), 80-92.
- KASS, G.V., (1980). An Exploratory Technique for Investigating Large Quantities of Categorical Data, Applied Statistics, 29, No.2, pp.119-127.
- KOÇ, H., YAZICIOĞLU, İ., and HATIPOĞLU, H. (2008). Öğretmenlerin Iş Doyum Algilari İle Performanslari Arasındaki İlişkinin Belirlenmesine Yönelik Bir Araştırma. Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi, 28, 13-22.
- LATHAM, G.P., and PINDER, C.C. (2005). Work motivation theory and research at the dawn of the twenthy-first century. Annual Review of Psychology, 56, 485–516.
- MASLOW, A. H. (1943). A theory of human motivation, Psychological Review, 50, 370-96.
- MASLOW, A.H. (1970). Motivation and personality (2nd ed.). New York: Harper and Row
- MUCHINSKY, P. M. (1999). Psychology applied to work: An introduction to industrial and organizational psychology. (6<sup>th</sup> ed.). USA: Wadsworth.
- REEVE J., BOLT E., and CAI Y., (1999). Autonomy-Supportive Teachers: How They Teach and Motivate Students. Journal of Educational Psychology, 91(3), pp.537-548.
- SALANCIK, G.R., and PFEFFER, J. (1977). An Examination of Need-Satisfaction Models of Job Attitudes. Administrative Science Quarterly, 22(3), 427-456.
- SKAALVIK, E.M., and SKAALVIK, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. Teaching and Teacher Education, 26, 1059-1069.

- SKAALVIK, E.M., and SKAALVIK, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context, feeling of belonging, and emotional exhaustion. Teaching and Teacher Education, 27, 1029-1038.
- STEMPIEN, L.R., and LOEB, R. (2002). Differences in Job Satisfaction Between General Education and Special Education Teachers: Implications for Retention. Remedial and Special Education, 23,(5), 258-267.
- TOKER, B. (2007). Demografik Değişkenlerin Iş Tatminine Etkileri: Izmir'deki Beş Ve Dört Yildizli Otellere Yönelik Bir Uygulama. Doğuş Üniversitesi Dergisi, 8(1),92-107
- YALCH, R., and BRUNEL, F. (1996). Need hierarchies in consumer judgments of product designs: is it time to reconsider Maslow's theory? In Corfman, K.P., and John G.L. (Eds.), Advances in Consumer Research, Volume 23 (pp. 405-410). Provo, UT: Association for Consumer Research.