# Satisfaction State of Computer Education and Instructional Technologies Students: Karadeniz Technical University Case

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**ABSTRACT.** The principal aim of the present study is to determine the satisfaction level of prospective computer teachers being educated at Computer Education and Instructional Technologies (CEIT) department. The sample group of the study was 112 students (44 female, 68 male) registered to CEIT department at Karadeniz Technical University Fatih Faculty of Education in fall term of 2008-2009 academic year. The data of the study were collected through "Student Satisfaction Scale" developed by the researcher as a four-part scale. The data coming from the scale were analyzed with SPSS 17 software package. In the data analysis part, the frequencies and percentiles coming from the scale were determined and multi-variable variance analysis (MANOVA) was conducted. Wilk's Lambda test was also conducted in order to determine the validity of allover model. According to the results, there was no difference between satisfaction levels depending on gender independent variable. There was significant difference between the satisfaction scores of 1st year and 4th year students (In favour of 1st year students). The data obtained from the sub-factors were presented in the study.

**Keywords:** student satisfaction, ceit, expectations of computer teacher candidates, computer teacher candidates

## INTRODUCTION

In order to educate competent teachers and to solve certain problems in education faculties, Higher Education Council of Turkey (YÖK) underwent a renovation period on education faculties in 1998. With the framework of these renovations, education faculties and the curricula have altered fundamentally and some new curricula and departments and were launched for teacher education. In the course of this process, CEIT departments were charged with the mission and responsibility of inclusion of the computers into allover educational process, which is a requirement of staying contemporary. The main aims of CEIT departments are to educate primary and secondary school level information technologies teachers, who have proper attributions, competent on application of the contemporary technology on educational settings. Education is not limited to academic instruction in the classroom.

Non-formal student-lecturer relations, curriculum, academic consulting and guidance of the lecturer have also part in the process (Ekinci & Burgaz, 2007). Satisfaction of the students about the institution where they receive education will positively affect their education. Student satisfaction from the institution embodies dimensions like; the quality of education, infrastructure, application opportunities offered by the institution, social, cultural and cultural facilities, orientation and guidance, individual characteristics of students, academic departments, managers and lecturers (Uzgören & Uzgören, 2007; Erdoğan & Uşak, 2005; Wolniak & Engberg, 2010). Although 'satisfaction' has been defined in a variety of ways, "pleasurable fulfillment" and "the perception pertaining whether a service is performed in a satisfactory way" are two of the most widely accepted definition (Oliver, 1999, p.34). The consensus between sociological and psychological dimensions or the consensus between individual needs and institutional demands is an indicator of the satisfaction and it is referred as one of the most principal criteria of preparing a sound educational environment. In educational institutions the student satisfaction can be facilitated and increased by preparing educational environments so as to meet learning needs of students in the best way and by sufficing student expectations and needs. From this point of view there is not a great difference between a grocer who tries to live up to the expectations of the customer in the best way and the institution providing education. As for any other foundations in service industry, a school should also cope for offering the best for students (Kaynar et al., 2006).

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If universities adapt students satisfaction oriented applications, not only do they provide better education for their present students, but also they will be demanded more and will attract students who have higher scores at national university entrance examinations (Şahin, 2009). In other words, the deeds of satisfaction bring about mutual benefits both for students, the costumer and for the school, resembled the firm (Sahney, Banwet & Karunes, 2004), prioritized the customers of the undergraduate education. Students occupy the first place in the list although there are also marketplace, society, lecturers and families in the list. In this list the customer and their respective positions classified as presented in Table 1 (Sahney, Banwet & Karunes, 2004).

**Table 1.** *Descriptives for Customer Requirement Constructs: Faculty (Sahney, Banwet & Karunes, 2004)*

| Items | Descriptives |
|---|---|
| Tangibles | Appropriate physical facilities, Adequate facilities and equipment, Salary, Allowances and benefits, Adequate and efficient teaching assistants/project help |
| Competence | Effective classroom management, Proper classroom procedures, Opportunity and control for curriculum development |
| Attitude | Effective problem solving/complaint handling, Cordial interpersonal relations Proper monitoring systems |
| Delivery | In service training and development, Continuous personal growth, Politeness and courtesy, Orderly environment conducive to teaching, Individualized/personalized attention |
| Reliability | Fairly and firmly enforced rules and regulations Security of job, Recognition for work carried out |

As Table 1 shows, student satisfaction is number one important issue for universities. In this context, the aim of this study is to determine the state of satisfaction of the students of CEIT department at Karadeniz Technical University Fatih Faculty of Education about the educational facilities they are offered; to determine whether there is a correlation between the student satisfaction and the year of education; and to determine the factors affecting student satisfaction.

## METHOD

### Participants
The study was conducted with 44 female (40%) and 68 male (60%), totally 112 students having their 1st, 2nd, 3rd, and 4th years at CEIT department in Karadeniz Technical University Fatih Faculty of Education in 2008-2009 academic year. Since all the universe of the study was reached, no additional sample was defined. The students voluntarily participated in the study.

### Instruments
This paper is a descriptive study aiming to state student opinions related to student satisfaction level. In this study, case study research model was used. Because case studies provide the opportunity to focus on a special case (Wellington, 2000), to obtain detailed information about a special and to explain the cause and effect relationship between the variables (Cohen, Manion & Morrison, 2007; Patton, 2002). According to different studies done so far, student satisfaction varies depending on student's gender and grade level (Çokluk-Bökeoğlu & Yılmaz, 2007; Demirtaş & Kahveci, 2010; Gülcan, Kuştepeli & Aldemir, 2002). For this reason independent variables of this study are identified as gender and grade level.

In this study, which aimed to research the satisfaction levels of the students', data are obtained by using "student satisfaction questionnaire" developed by the researchers. The answers given by the students to the scale were scored by using 5-choice likert-type. The choices were transcribed to form scores with

the criterion of; 5: Very satisfied/definitely/very good, 4: Satisfied/good, 3: Neither satisfied nor dissatisfied/Medium, 2: Dissatisfied/Bad, 1: Very dissatisfied /Poor/very bad.

While each sub-section was being evaluated, the score ranges were calculated with the formula; "(The highest possible score – the lowest possible score)/ number of factors" (Sümbüloğlu & Sümbüloğlu, 2002). Accordingly, Table 2 presents the score ranges used to evaluate each section, their corresponding values, the sections and their aims.

**Table 2.** *Information about the Student Satisfaction Scale*

| Part of Questionnaire | Content | *NQ | Evaluation of Items |
|---|---|---|---|
| Part1: Personal Information | Questions inquiring demographic features of the students | Open ended | Categorized and analyzed with percentile and frequencies |
| Part 2: General Evaluation | University (central campus) facilities and overall evaluation of the services offered | 19 | Very dissatisfied:1.00-1.80 <br> Dissatisfied:1.81 – 2.60 <br> Neither satisfied nor dissatisfied:2.61 – 3.40 <br> Satisfied:3.41 – 4.20 <br> Very satisfied: 4.21 – 5.00 |
| Part 3: Department Evaluation | Facilities of CEIT department and overall evaluation of the services offered by the department | 19 | Very dissatisfied:1.00-1.80 <br> Dissatisfied:1.81 – 2.60 <br> Neither satisfied nor dissatisfied:2.61 – 3.40 <br> Satisfied:3.41 – 4.20 <br> Very satisfied: 4.21 – 5.00 |
| Part 4: Students' Comment | Students' Comment | Open ended | Categorized and analyzed with percentile and frequencies |

*Number of Questions

Prior to student satisfaction scale bearing the sub-sections in Table 2 was developed, items of the scale were determined according to literature review and the comments of the expert lecturers on educational sciences field. Then the scale was finalized along with the opinions of six lecturers who are expert on the field of Computer Education and Instructional Technologies.

In terms of reliability of the developed questionnaire, it is found out that, reliability coefficient of "general assessment" part of the questionnaire is 0.83, reliability coefficient of "chapter review" part of the questionnaire is 0.85, while the reliability coefficient of the whole questionnaire is 0.90. An acceptable range of reliability for coefficients for most instruments is 0.70 to 0.90 (McMillan & Schumacher, 2010, p.179).

**Data Analysis**

The data obtained from the student satisfaction scale were analyzed with SPSS 17 pack. While the responses of the student satisfaction scale were analyzed, frequencies and percentiles were determined and multi variable variance analysis (MANOVA) was conducted. MANOVA is a powerful multi-variable statistical test, preferred to test whether there are significant differences among the groups formed with the effect of one or more than one factors for more than one dependent variable. MANOVA is accepted appropriate in experimental designs when the case is to compare subjects coming from different experimental conditions at the same time for more than one depended variable (Büyüköztürk, 2007). In order to determine the validity of the whole model, Wilk's Lambda Test was conducted.

In order to state the satisfaction level of students; the top and bottom levels were taken and then level ranges were determined by adding score range values. The score range values calculated with the formula of; Score range= (The maximum value-The minimum value) / classroom range (Sümbüloğlu & Sümbüloğlu, 2002).

## FINDINGS

The data obtained by the application of the "Student Satisfaction" scale onto the sample students are evaluated in this section. The data were presented in tables under five subsections as; demographic findings, investigation of student satisfaction towards the university for the related variables, investigation of student satisfaction towards the department for the related variables, evaluation of the qualitative values and determining scale items with minimum and maximum score averages . In order to test whether there is a difference between gender and school-year groups in terms of the satisfaction opinions of the students towards their university and department one-way-MANOVA was conducted. The obtained data were processed in terms of two dependent variables; satisfaction towards university and satisfaction towards department and two independent variables; gender and school-year with one-way, multi-variable variance analysis (One-way MANOVA). The results of MANOVA test are presented with separate tables in the related subsections. Although there is variety of multi-variable tests to compare group averages, "Wilk's Lambda Test ($\Lambda$)" has been the most widely used (Büyüköztürk, 2004, p.137). We also preferred Wilk's Lambda Test to compare the satisfaction levels of the groups.

### Findings Related to the First Subdivision (Demographic)

The distribution of the demographic features of the sampled 112 CEIT Department students is in Table 3.

**Table 3.** *Demographic Distribution of the Participants*

| Demographic Characteristics | Class1 | Class 2 | Class 3 | Class 4 | Total |
|---|---|---|---|---|---|
| Female | 11 (%9.8) | 12 (%10.7) | 8 (%7.1) | 13 (%11.6) | 44 (%39.3) |
| Male | 19 (%17.0) | 19 (%17.0) | 16 (%14.3) | 14 (%12.5) | 68 (%60.7) |
| Total | 30 (%26.8) | 31 (%27.7) | 24 (%21.4) | 27 (%24.1) | 112 (%100) |

In Table 3, totally 112 students registered to CEIT Department in Karadeniz Technical University Fatih Faculty of Education were grouped according to gender and school-year. The school-year distribution of the students was formed as; 26,8% of them (30 students) were at their first year, 27,7% of them (31 students) were at their 2$^{nd}$ year, 21,4% of them (24 students) were 3$^{rd}$ and 24,1% of them (27 students) were at 4$^{th}$ year.   60,7% of the participant students (68 students) were male and 39,3% of them (44 students) were female students. The frequency of the male students participating in the study is higher than the frequency of female students. Nevertheless, the distribution of student gender frequency over the school-years was homogeneous.

### Findings Related to the Second Subdivision

Table 4 presents averages and standard deviations of the student satisfaction scores towards the whole university and the department they are registered depending on gender.

**Table 4.** *Satisfaction Score Statistics depending on Gender Variable*

| Dependent Variables | Gender | Mean | Std. | f |
|---|---|---|---|---|
| Satisfaction on University | Female | 57,7955 | 10,10084 | 44 |
| | Male | 58,5294 | 9,70839 | 68 |
| | Total | 58,2411 | 9,82573 | 112 |
| Satisfaction on Department | Female | 57,3182 | 9,87544 | 44 |
| | Male | 57,4412 | 9,19666 | 68 |
| | Total | 57,3929 | 9,42525 | 112 |

Going through the data in Table 4, we see that arithmetic average of student satisfaction levels towards the university and the departments of male and female students were quite close to each other. It was tested whether there was a statistically significant difference between the variables with MANOVA test. Prior to MANOVA, homogeneity of the variances and co-variances of the related depended variable and normal distribution of the depended variable data were checked as the prerequisites of MANOVA. To grant these conditions, co-variances of the satisfaction data with respect to gender independent variable were proved equal with Box's Statistics [Box's M:4.218, $F_{(3,397936)}$=1.376, p>0.05] for MANOVA analysis and Table 5 presents Levene F Test results conducted to check the equality of the variances.

**Table 5.** *Levene's Test to Check the Equality of Variances*

| Dependent Variables | F | sd1 | sd2 | p |
|---|---|---|---|---|
| Level of Satisfaction on University | ,627 | 1 | 110 | ,430 |
| Level of Satisfaction on Department | ,920 | 1 | 110 | ,340 |

When the results in Table 5 were examined, you can see that the variances of the scores of the satisfaction towards university and satisfaction towards department variables respectively were homogeneous ($F_{(1,110)}$=0.627, p=0.43, p>0.05 − $F_{(1,110)}$=0.920, p=0.34, p>0.05). Besides, Kolmogorov-Smirnov normality test proved that the scores of satisfaction towards the university and towards the department variables showed normal distribution for both single variable and multi-variable. MANOVA test results of the participants for the dimensions of satisfaction towards the university and satisfaction towards the department with respect to gender independent variable are in Table 6.

**Table 6.** *MANOVA Test Results of Satisfaction versus Gender*

| Demographic Characteristics | Wilks' Lambda (Λ) | Hypothesis df | Error Sd | F | p |
|---|---|---|---|---|---|
| Gender | 0,998 | 2 | 109 | 0,099 | 0.906 |

As a result of the MANOVA analysis in Table 6, satisfaction scores did not statistically differ among the gender groups at p=0,05 level (Λ= 0.998, $F_{(2,109)}$ = 0.099, p = 0.906, p > 0.05). This piece of finding showed that the scores obtained from linear product of the satisfaction towards university and towards department scores of the participants did not differ with respect to gender. In other words, this finding can be interpreted as the satisfaction state of the participants does not change with respect to gender.

**Findings Related to the Third Subdivision**

Table 7 presents averages and standard deviations of the student satisfaction scores towards the whole university and the departments they are registered depending on school-year.

**Table 7.** *Satisfaction Score Statistics depending on School-Year Variable.*

| Dependent Variables | Class | Mean | Sd | N |
|---|---|---|---|---|
| Satisfaction on University | 1 | 63,0667 | 8,90150 | 30 |
| | 2 | 58,1290 | 8,91344 | 31 |
| | 3 | 56,2500 | 10,60455 | 24 |
| | 4 | 54,7778 | 9,46789 | 27 |
| | Total | 58,2411 | 9,82573 | 112 |
| Satisfaction on Department | 1 | 59,9667 | 9,51037 | 30 |
| | 2 | 58,8387 | 9,52574 | 31 |
| | 3 | 56,0417 | 9,74224 | 24 |
| | 4 | 54,0741 | 8,15205 | 27 |
| | Total | 57,3929 | 9,42525 | 112 |

Concerning averages and standard deviation values, it is evident that there is a difference among the levels of satisfaction towards university and department scores of students having different school-years. In order to check whether these differences were statistically significant, MANOVA test was conducted. Before the application of MANOVA test, the basic hypotheses of MANOVA; homogeneity of the variances and co-variances of the related depended variable and normal distribution of the depended variable data were checked. Box's Test results testing the equality of covariance matrixes are in Table 8.

**Table 8.** *Box's Test Results Testing the Equality of Covariance Matrixes*

| Box's M | Sd1 | Sd2 | F | p |
|---|---|---|---|---|
| 7,592 | 9 | 1,135 | 0,815 | 0,602 |

According to the test results in Table 8, covariant matrixes of depended variables were homogenous (F=0.815, p=0.602, p>0.05). Levene F test, testing the equality of variances, is in Table 9.

**Table 9.** *Levene's Test related to Equality of Variances*

| Dependent Variables | F | sd1 | sd2 | p |
|---|---|---|---|---|
| Satisfaction on University | ,282 | 3 | 108 | ,838 |
| Satisfaction on Department | ,500 | 3 | 108 | ,683 |

When the results in Table 9 examined, it was observed that the variances of satisfaction towards university and department variables respectively with respect to school-year were homogenous ($F_{(3,108)}$=0.282, p=0.838, p>0.05 − $F_{(3,108)}$=0.500, p=0.683, p>0.05). Besides, Kolmogorov-Smirnov normality test indicated that both satisfaction scores normally distributed in all school-year sublevels. Table 10 presents MANOVA analysis results about the scores of satisfaction towards university and satisfaction towards department with respect to independent variable school-year.

**Table 10.** *MANOVA Results of Satisfaction Scores with respect to School-Year*

| Demographic Characteristics | Wilks' Lambda ($\Lambda$) | Hypothesis df | Error Sd | F | p |
|---|---|---|---|---|---|
| Class | 0,878 | 6,0 | 214,0 | 2,394 | 0,029 |

As Table 10 presents, MANOVA analysis showed that satisfaction scores statistically differ among the school-years at p=0,05 level ($\Lambda$= 0.878, $F_{(6,214)}$ = 2.394, p = 0.029, p < 0.05). This piece of finding indicates that the scores obtained from linear product of the satisfaction towards university and towards department scores of the participants did differ with respect to school-year variable. This finding can be interpreted as the satisfaction level of the participants alters and differentiates in terms of school-year parameter. Since the school-year variable was found significant as a result of MANOVA, variance analysis was conducted for this variable and the results were presented in Table 11.

**Table 11.** *Variance Analysis Results of Satisfaction versus School-Year*

| Source of Variance | Dependent Variables | KO | Sd | F | p | Effect Size |
|---|---|---|---|---|---|---|
| Level of class | Satisfaction on University | 372,658 | 3 | 4,193 | 0,008 | 0,104 |
| | Satisfaction on Department | 201.581 | 3 | 2,352 | 0,076 | 0,061 |

As Table 11 presents, while school-year had a significant effect on satisfaction towards university score ($F_{(3,108)}$=4.193, p=0.008, p<0.05) it did not cause any changes on satisfaction towards department score ($F_{(3,108)}$=2.352, p=0.076, p>0.05).   Then, Fisher LSD test was conducted to see which school-year level the significant difference of satisfaction towards university score changed. Fisher LSD test results comparing school-year and satisfaction towards university scores are given in Table 12.

**Table 12.** *Fisher Lsd Test Results for Satisfaction towards University versus School-Year*

| Level of class | N | Mean | Std. Deviation | Difference Between Groups |
|---|---|---|---|---|
| Class 1 | 30 | 63,066 | 8,901 | 1-2, 1-3 and 1-4 |
| Class 2 | 31 | 58,129 | 8,913 | 1-2* p=0,043 |
| Class 3 | 24 | 56,250 | 10,604 | 1-3* p=0,010 |
| Class 4 | 27 | 54,777 | 9,467 | 1-4* p= 0,001 |
| | | | | * p<0,05 |
| Total | 100 | 58,2411 | 9,825 | |

The analysis of the results in Table 12 fixed that; there were statistically significant differences among the satisfaction towards university scores of students of different school-years (1st year: $\overline{X}$ =63.066 ss=8.901, 2nd year: $\overline{X}$ =58.129 ss=8.913, 3rd year: $\overline{X}$ =56.250 ss=10.604, 4th year: $\overline{X}$ =54.777 ss=9.467). It is a remarkable situation that student satisfaction towards university decreases, as the school-year; that is, the period they experience the university, increases. This can be interpreted as the satisfaction feeling student feel when they are freshman has changed and decreased in years. Group averages also support this idea.

### Findings Related to the Third Subdivision

Table 13 tabulates frequencies, percentiles, arithmetic averages, standard deviations and satisfaction levels of the data obtained by the opinions of the students towards the university and services provided by

the university in general. In order to determine the most dominant opinions of the participants, the arithmetic averages of the items of the scale were investigated and the most and the least satisfied questionnaire items were determined.

**Table 13.** *Student Opinions about Satisfaction towards University*

| Items of Questionnaire | $\overline{X}$ | S.S. |
|---|---|---|
| General adequacy of the campus | 2.81 | 0.84 |
| Adequacy of the central library | 3.30 | 1.01 |
| Adequacy of social events offered by the university | 2.67 | 0.98 |
| Adequacy of bureaucracy at the university | 2.88 | 1.02 |
| Overall cleanliness of the university and adequacy of the cleaning services | 3.13 | 1.03 |
| Adequacy of services in student cafeteria and canteens | 3.21 | 0.90 |
| Adequacy of services by register office (care, document retrieval etc.) | 2.97 | 1.18 |
| Adequacy of internet facilities of the university | 2.40 | 0.95 |
| Adequacy of university dormitories in quality and quantity | 2.68 | 0.88 |
| Adequacy of transportation means at the university (number of vehicles, safety etc.) | 3.14 | 0.95 |
| Adequacy of healthcare services offered to students | 2.93 | 0.94 |
| Adequacy of guidance and counseling services provided by the university | 2.46 | 0.92 |
| Adequacy of cultural, sports and art activities provided by the university (Student clubs, equipment, place, discussion platform etc.) | 2.84 | 1.02 |
| Adequacy of academic consulting during instruction | 2.87 | 0.80 |
| General level of the education you get from the university to meet your expectations | 2.92 | 0.86 |
| Your tendency towards choosing our university, if you were to have university education again | 2.75 | 1.21 |
| Your tendency towards choosing your present department, if you were to have university education again | 3.31 | 1.35 |
| Your belief about the positive effects of being a Karadeniz Technical University Graduate in future (employment opportunities etc.) | 3.27 | 1.09 |
| The contributions of being a student of our university on your personal characteristics and personal development | 3.03 | 0.99 |

When we look through satisfaction levels of students related to the university sub-factor in Table 13, the students were little satisfied for four sub-sections in the scale ($\overline{X}$=2.40-2.68) (Adequacy of guidance and counseling services provided by the university, Adequacy of social events offered by the university, Adequacy of internet facilities of the university, and Adequacy of university dormitories in quality and quantity). Except for the four titles above, the students seemed medium satisfied for the rest of the subdivisions ($\overline{X}$=2.75-3.31). As a matter of fact, none of the students chose very satisfied and very dissatisfied choices for the items in these parts. These findings indicated that the students are satisfied of the facilities offered by the university at medium level. Table 14 presents the frequencies, percentiles, arithmetic averages ($\overline{X}$), standard deviations (SD) and satisfaction levels of the questionnaire conducted to determine satisfaction level of the students towards the departments they were registered;

**Table 14.** *Student Opinions about the Satisfaction towards Department*

| Items of Questionnaire | $\overline{X}$ | S.S. |
|---|---|---|
| Content adequacy of courses | 3.07 | 0.90 |
| Adequacy of courses in terms of practice/application | 3.21 | 0.81 |
| Adequacy of courses in terms of laboratory/workshop | 2.70 | 0.98 |
| Currency of the curricula and contents (up-to-dateness) | 2.97 | 0.96 |
| Availability of course materials (power point presentations, books, journal etc.) | 3.12 | 0.94 |
| Implementing technological means in lessons (computer assist etc.) | 3.38 | 0.89 |
| Instruction style (applying different instructional methods etc) | 3.08 | 0.87 |
| Competency of the educational staff in conduction educational activities | 3.20 | 0.83 |
| Contribution of the curricula to preparing students real life (providing guidance about professions etc.) | 3.01 | 0.89 |
| Adequacy of the student achievement assessment system of the department | 3.04 | 0.79 |
| Attitude and manner of the department administrators towards students (care, availability etc.) | 3.58 | 1.03 |
| Attitude and manner of the department lecturers towards students | 3.55 | 0.95 |
| Attitude and manner of the department administrative staff towards students | 3.54 | 0.89 |
| Adequacy of physical infrastructure of the department (classrooms, lab. etc.) | 2.83 | 0.88 |
| Adequacy of computer and internet facilities of the department | 2.53 | 0.98 |
| Adequacy of library facilities of the department | 2.43 | 0.97 |
| Adequacy of canteen facilities of the department | 2.78 | 1.16 |
| Adequacy of the department in terms of sports and art activities | 2.77 | 1.02 |
| Adequacy of consultancy activities of the department | 2.61 | 0.90 |

When we look through satisfaction levels of students related to the department sub-factor in Table 14, there were no items about which students were very satisfied. However there were three items that students were satisfied about ($\overline{X}$ =3.54-3.58); "attitude and manner of the department administrators towards students", "attitude and manner of the department lecturers towards students", and "attitude and manner of the department administrative staff towards students" ($\overline{X}$ =3.54). These findings showed that three most satisfied items were about the attitudes and manners of the overall department staff and that the students were particularly satisfied with the manners of the department lecturers and administrative staff. A proper relation between students and lecturers is one of the most important factors affecting student achievement. In this context, it can be assumed that the attitude of the department staff and lecturers towards the students and the communication between the groups is at a satisfactory level will positively affect the student achievement and improvement. The three questionnaire items with lowest satisfaction level related to the department sub-factor were; adequacy of computer and internet facilities of the department ($\overline{X}$ =2.53), adequacy of library facilities of the department ($\overline{X}$ =2.43), adequacy of consultancy activities of the department ($\overline{X}$ =2.61). These findings can be interpreted as the students did not feel satisfied with library, computer, and internet facilities provided by the department. In addition, it was another important finding that students classified consultancy services of the department as dissatisfactory, as they did the same for the guidance and consultancy services of the university. This can be interpreted as both at university level and department level the guidance and consultancy services were not fully proper. The students were medium level satisfied for the rest of the items in this part (2.70-3.38). In the last part of the questionnaire, students were asked an open-ended question so that they could express the things that were not asked with questionnaire items.

As a result of the analysis of the obtained qualitative data coming from this open-ended question, some common opinions were detected. A considerable ratio of the students noted that internet connection speed in the department was too low and that the laboratories were fairly inadequate. Another frequently

repeated idea was that the hard courses of the last year should be given in previous years so that they could prepare for the Public Personal Selection Examination (KPSS), which they have to take to be employed by the government. When the opinions about the department lecturers reviewed, the participant students noted that they have no problem about getting on with the department lecturers, they are very satisfied with academicians and particularly head of the department.

## DISCUSSION AND CONCLUSIONS

Reviewing the findings of the present study, we see that there were more male students than female among the participants of this study, who chose the CEIT department but the gender distribution among school-year was homogenous. It was specified that gender factor had no effect on satisfaction level of students towards their departments and the university.

However, it was fixed that school-year factor had significant effect on satisfaction level of students towards their departments and the university. It was observed that student satisfaction changed among different school-years. The students become less satisfied as the school-year gets higher. Similarly Tektaş, Tektaş, Polat & Topuz (2009) also concluded that school-year had effect on satisfaction level of students towards department. Another result of the scale, implying the student satisfaction towards the university was that most of the students' answering the question "Would you choose our university, if you were to have university education again?" in a positive way although they stated that they were satisfied at medium level with the facilities offered by the university and the department. Additionally, there were positive statements about that they think the library in the central campus is adequate and being a KTU graduate will positively affect their future. On the other hand, the services students were little satisfied about were guidance and consultancy services, social events offered by university, computer and internet facilities and adequacy of the dormitories in quantity and quality.

About the satisfaction states of the students towards the department, they said that laboratory infrastructure and internet connection should be improved and the condensed content of the last year should be diluted or distributed into previous years so that the senior students could save time for KPSS preparation. Apart from these critics, the students also noted that they had no difficulties in communicating with lecturers and staff at their departments and that they could freely reach them. They added their satisfaction about this situation. In-classroom and out-of-classroom relation between lecturer and student has a crucial role on students (Kuh & Hu, 2001). In-classroom and out-of-relation between lecturer and student is known to have an important role on personal, social and intellectual development of the student, their academic achievements, the self-perception, self-esteem and self-respect of students (Ekinci & Burgaz, 2007). It is argued that out-of classroom conversation between students and lecturers foster students to think about their future career more, increase student satisfaction level towards educational experiences and provide some gains related to intellectual development (Clark, Walker & Keith, 2002). In this context, it can be said that the students having no problems with the lecturers are advantageous in terms of variety of variables and such students are more likely to improve themselves and succeed.

Running over the results, the students were satisfied with the facilities offered by the department and the university at medium level. Although the student satisfaction about the facilities is at medium level, students' tendency to choose the same university and faculty if they have one more chance is quite high. We think that the reason for this is the positive attitude of the lecturers and staff of the department towards students, which the students indicated that they were very contented about. As another aspect, the level of student satisfaction about social and cultural facilities was inquired under the university subtitle and it was determined that students were satisfied at a medium level. Students' views obtained from the last section of the questionnaire also support these findings. When open-ended answers given by students were examined, it is seen that factors affecting students' satisfaction from the department positively are; administrative and academic staff's positive attitude and approaches towards students, sufficiency of interdepartmental cultural and social activities, and the technological facilities. On the other hand, it is

identified that if improvements done in the fields of in the university's internet and computer facilities, guidance-counseling services and library facilities of the department, it will also increase the students' satisfaction.

All in all, concerning the opportunities offered by the advancing technology and fast changes in life conditions, the studies trying to determine student satisfaction level to improve the quality of education are important. In order to be able to educate graduates of higher attributions, universities and CEIT departments should conduct studies to increase the quality of education by determining the entities that students are not satisfied about and contact to related people or institutions to remove these defects. It can be said that sharing the results of the studies about student satisfaction with related units and academic staff and facilitating these people to think reflectively based on the results will contribute both student achievement and also effectiveness of departments and universities. In this context, it is anticipated that increasing the number of studies aiming to state the satisfaction level of CEIT department students and it is necessary to increase the number of such studies.

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# Bilgisayar Ve Öğretim Teknolojileri Eğitimi Bölümü Öğrencilerinin Memnuniyet Durumları: Karadeniz Teknik Üniversitesi Örneği

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**ÖZ.** Bu araştırmanın temel amacı, bilgisayar ve öğretim teknolojileri eğitimi bölümlerinde öğrenimlerini sürdüren bilgisayar öğretmen adaylarının "memnuniyet düzeylerini" belirlemektir. Araştırmanın çalışma grubunu, Karadeniz Teknik Üniversitesi Fatih Eğitim Fakültesi Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümü'nde 2008-2009 eğitim-öğretim yılı güz döneminde öğrenim gören 112 (68 erkek, 44 kız)  öğrenci oluşturmaktadır. Araştırmanın verileri, dört bölümden oluşan ve araştırmacılar tarafından geliştirilen "öğrenci memnuniyet anketi" kullanılarak toplanmıştır. Ölçekten elde edilen veriler, SPSS 17 paket programı ile analiz edilmiş. Öğrenci memnuniyeti ölçeğine verilen cevapların analizinde frekans, yüzde çok değişkenli varyans analizi (MANOVA) uygulanmıştır.  Analiz aşamasında, bütün olarak modelin geçerliliğini ölçmek için Wilk's Lamda değerine başvurulmuştur. Araştırmanın sonuçlarına göre; öğretmen adaylarının cinsiyet bağımsız değişkeni açısından memnuniyetleri arasında bir farklılığın olmadığı, sınıf bağımsız değişkeni açısından ise sadece birinci ve dördüncü sınıf öğrencilerinin üniversite ilişkin memnuniyetleri arasında (birinci sınıflar lehine) anlamlı bir farklılık olduğu tespit edilmiştir. Alt faktörlerden ele edilen nicel ve nitel veriler ise çalışmada ayrıca sunulmuştur.
**Anahtar Kelimeler:** Öğrenci memnuniyeti, Böte, Böte öğrencilerinin beklentileri, Bilişim teknolojileri öğretmen adayları

## ÖZET

*Amaç ve Önem:*  Memnuniyet kavramı, farklı biçimlerde tanımlanmakla birlikte, Oliver (1999)'e göre "bir işi zevk duyarak yerine getirme, tatmin olarak gerçekleştirme" olarak tanımlanmıştır. Öğrencilerin eğitim aldıkları kurumdan memnun olmaları, onların eğitimlerini olumlu yönde etkileyen önemli bir faktördür (Atay & Yıldırım, 2009). Öğrencinin öğrenimini sürdürdüğü kurumdan memnuniyeti; eğitim kalitesi, fiziki mekânlar, sunulan uygulama olanakları, sosyal, kültürel, sportif olanaklar, yönlendirme ve rehberlik, öğrencinin bireysel özellikleri, akademik bölümler, yönetim ve öğretim elemanları gibi farklı bileşenlerden etkilenmektedir (Sahney, Banwet & Karunes, 2004). Üniversiteler, öğrencilerin memnuniyetini temel alan çalışmalar ile mevcut öğrencilerin daha iyi şartlarda eğitim almasını sağlayabilir ve diğer taraftan öğrenciler tarafından daha çok talep edilerek daha üst puan dilimlerinden öğrenci almaları mümkün olabilir. 1998 yılında eğitim fakülteleri nitelikli öğretmen yetiştirmek ve eğitim fakültelerinde yaşanan bir takım sorunlara çözüm bulmak için yeniden yapılanma sürecine girmiştir (Baki & Baki, 2010). Yüksek Öğretim Kurumu, tarafından yeniden yapılanma sürecinde oluşturulan yeni bölümlerden biri de Bilgisayar ve Öğretim Teknolojileri Eğitimi (BÖTE) bölümleridir. Bu çalışma kapsamında Karadeniz Teknik Üniversitesi Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümüne devam etmekte olan lisans 1, 2, 3 ve 4. sınıf öğrencilerinin memnuniyet düzeylerinin belirlenmesi çalışmanın problemini oluşturmuştur. Yapılan çalışmalarda öğrencilerin memnuniyetleri üzerinde pek çok değişkenin etkili olduğu (öğretim elemanı, üniversite olanakları, bölüm olanakları vb.) tespit edilmiştir (Çokluk-Bökeoğlu & Yılmaz, 2007; Gülcan, Kuştepeli & Aldemir, 2002). Öğrencilerce ortaya konan memnuniyetsizlik yaratan durumların üniversite ve fakülte yönetimleri ile öğretim elemanlarınca değerlendirilmesi ve gerekli önlemlerin alınması, eğitimdeki kalitenin artmasını olumlu yönde etkilemektedir (Daştan, 2009). Bu nedenle çalışma kapsamında, bilgisayar ve öğretim teknolojileri eğitimi bölümlerinde öğrenimlerini sürdüren öğretmen adaylarının "bölümlerinden memnuniyet düzeylerini", "üniversitelerinden memnuniyetlerini", "memnuniyetlerini etkileyen faktörleri"  "öğrenci memnuniyeti ile öğrencinin devam ettiği "sınıf düzeyi" ve "cinsiyet" arasındaki ilişkiyi belirlemek amaçlanmıştır.

*Yöntem:* Bu araştırma, memnuniyet düzeyine ilişkin öğrenci görüşlerini ortaya koymayı amaçlayan bir durum çalışmasıdır. Araştırmanın çalışma grubunu, Karadeniz Teknik Üniversitesi Fatih Eğitim Fakültesi Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümü'nde 2008-2009 eğitim-öğretim yılı güz döneminde öğrenim gören 112 (68 erkek, 44 kız) öğrenci oluşturmuştur. Araştırmanın verileri,  araştırmacılar tarafından geliştirilen ve dört bölümden oluşan "öğrenci memnuniyet anketi" kullanılarak toplanmıştır. Ölçekten elde edilen veriler, SPSS 17 paket programı ile analiz edilmiştir. Öğrenci memnuniyeti ölçeğine verilen cevapların analizinde frekans, yüzde çok değişkenli varyans analizi (MANOVA) uygulanmıştır. Analiz aşamasında, bütün olarak modelin geçerliliğini ölçmek için Wilk's Lamda değerine başvurulmuştur.

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***Bulgular:*** Araştırmanın bulgularına göre, öğretmen adaylarının cinsiyet bağımsız değişkeni açısından memnuniyetleri arasında bir farklılığın olmadığı tespit edilmiştir. Veriler sınıf bağımsız değişkeni açısından incelendiğinde ise sadece birinci ve dördüncü sınıf öğrencilerinin üniversite ilişkin memnuniyetleri arasında (birinci sınıflar lehine) anlamlı bir farklılık olduğu tespit edilmiştir. Alt faktörlerden ele edilen bulgulara göre ise; öğrencilerin üniversitenin sunduğu olanaklardan, "orta derecede memnun" oldukları, bölüm öğretim elemanlarının ve idari personelinin kendilerine yönelik yaklaşımlarından "oldukça memnun" oldukları, bölümün sunduğu kütüphane, bilgisayar ve internet olanaklarını, üniversitenin sunduğu rehberlik ve danışma hizmetlerini ise "yeterli bulmadıkları" tespit edilmiştir. Öğrencilerin önemli bir kısmı, bölümde mevcut olan internet bağlantı hızının çok yavaş olduğunu ve mevcut laboratuvarların yeterli olmadığını vurgulamışlardır. Ayrıca son yıl verilen zor derslerin daha önceki yıllarda verilmesi, ilgili ders süreçlerinin önceden tamamlanması ve son sene resmi kurumlarda öğretmenlik yapabilmeleri için girmek durumunda kaldıkları Kamu Personeli Seçme Sınavına yönelik daha fazla çalışma zamanı ayırmak istedikleri de çalışmada öne çıkan görüşlerdir.

***Tartışma, Sonuç ve Öneriler:*** Araştırma sonucunda Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümü'nü tercih eden erkek öğrencilerin kız öğrencilere kıyasla daha fazla olduğu ancak öğrencilerin bölüme ve üniversiteye ilişkin memnuniyet düzeyleri üzerinde, cinsiyet faktörünün bir etkisinin bulunmadığı görülmektedir. Ancak sınıf faktörünün öğrencilerin bölüme ve üniversiteye ilişkin memnuniyet düzeyleri üzerinde bir etkisinin bulunduğu tespit edilmiştir. Öğrencilerin sınıf düzeyleri değiştiğinde bölümlerinden duydukları memnuniyetleri düzeyleri farklılaşmaktadır. Genel olarak değerlendirildiğinde öğrencilerin bölüm ve üniversitenin sunduğu olanaklardan orta düzeyde memnun oldukları görülmektedir. Sonuç olarak gelişen teknolojinin sunduğu olanaklar ve hayat şartlarının hızla gelişimi göz önünde bulundurulduğunda eğitim-öğretimin kalitesinin artırılmasına yönelik memnuniyet düzeyi belirleme çalışmaları önem taşımaktadır. Üniversiteler ve Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümleri; nitelikli mezun yetiştirmek amacıyla öğrencilerinin memnun olmadıkları alanları belirleyerek, çözüm geliştirebilecek kişi, kurum ve kuruluşlarla işbirliği içerisinde ilgili alanlarda yaşanan sıkıntıların giderilmesine yönelik çalışmalarla bölüm kalitesi yükseltmeye yönelik çalışmalar yapmalıdır. Öğrencilerin memnuniyet düzeylerinin belirlenmesine yönelik gerçekleştirilecek çalışma sonuçlarının ilgili birimler ve öğretim elemanları ile paylaşılmasının ve bu bağlamda tüm ilgililerin kendini yenileme eylemi içine girmelerinin, hem öğrenci başarısına hem de bölüm ve üniversitenin etkililiğine olumlu katkı sağlayacağı söylenebilir. Bununla birlikte, BÖTE bölümlerinde öğrenim görmekte olan öğrencilerin memnuniyetini belirlemeye yönelik araştırmaların artırılmasının yararlı olabileceği ve bu yöndeki çalışmalar gerçekleştirilmesinin gerekli olduğu söylenebilir.