

# THEORY AND RESEARCH IN SOCIAL AND ADMINISTRATIVE SCIENCES

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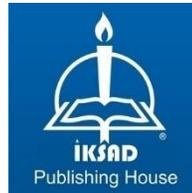
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## **FOREWORD**

One way to describe the era we live in is to refer to the unique and central importance of knowledge and the enlightenment process that it has gained in this age. Based on this importance, there is a strong social consensus that the age we live in and the aftermath of this era is / will be the information age of the 21st century, where we think we can see almost every moment if we get taller. This consensus is largely based on the effect of developing communication technologies, the mechanical and serial mass production of information and the speed of its circulation on the social structure. Obviously, the ability to produce, reproduce and disseminate information mechanically has led to fundamental changes in social relations. More of this influence has been on the nature of knowledge itself in deeper dimensions.

Efforts to solve social and individual problems that started from the first periods of human history gave rise to the social sciences. When the need to live in a particular society brings problems with it, the social sciences have a problem-solving mission. For this reason, considering the social sciences, the science of problem-solving science comes to mind first. This problem-solving science has come to the present day with increasing importance and development in the historical process due to its mission.

This study, designed under the name of “Theory and Research in Social and Administrative Sciences”, consists of studies that fill a significant dearth involving different subjects and fields published in the field of social sciences.

This study contains very valuable studies by Prof. Dr. Murat Tuncer, Dr. Melih Dikmen (The Effect of Education Based on Learning Style on Metacognitive Skills: An Experimental Study), Assoc. Prof. Nural İmrik Tanyıldızı (The Use of Music in The Most Watched Advertisements on Youtube In Turkey), Assoc. Prof. Dr. Ersin Kırıl, Lecturer Can Mavruk (The Effect of Subjective Well-Being Over The Relationship Between Psychological Well-Being And Quality of Life), Assoc. Prof. Dr. Aynur Geçer, Dr. Arzu Deveci Topal (Examining The Relationship Between Computational Thinking Skills and Metacognitive Thinking Skills), Assoc. Prof. Dr. Ergün Demirel (Autonomy Versus Standardization For University Academic Programs), Assoc. Prof. Dr. Aynur Geçer, Dr. Arzu Deveci Topal, Lecturer Esra Çoban Budak (Effect of Scratch Software on Computational Thinking Skills of Medical Documentation and Secretarial Department Students), Assoc. Prof. Dr. Ergün Demirel (In The Gales of A Man’s World: Problems of Woman Seafarers Confront on Board), Assist. Prof. Dr. Şeyma Bozkurt Uzan, PhD Student Alaa Fathi (The Relationship Between Strategic Planning and Customer Service Quality Improvement; Field Study on The Quality of Service in The Water Sector – Coastal Municipalities Water Utility – Gaza Governorates), Dr. Enis Emre Memişoğlu (The Potentiality of Labour in Marx), Lecturer Can Mavruk (Objective and Subjective

Spatial Effects Over Quality of Life of Adana Residents), Assoc Prof. Dr. Mehtap Yıldız, Master Student Abdurrahman Topal (Determining The Factors That Constraint State School Teachers From Participating in Leisure Time Activities), Dr. Erdal Bilgiç (Revisiting The Relationship Between Soviet Union and Turkey in The Early Republican Period: The Negotiations on 1927 Trade Agreement) and Didem Koban Koc (Identifying Threshold Concepts in Learning About Linguistics By Undergraduate Students).

I would like to thank Designer Mr. İbrahim KAYA who has worked in the preparation of this work, IKSAD Chief Advisor and IKSAD International Publication House Supervisor Mr. Sefa Salih BILDIRICI, and IKSAD President Mr. Mustafa Latif EMEK who supported us in every matter. I would also like to express our gratitude to our authors for their significant contributions to the work.

Assist. Prof. Dr. Özlem KAYA<sup>1</sup>

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**CHAPTER 1**  
**THE EFFECT OF EDUCATION BASED ON LEARNING  
STYLE ON METACOGNITIVE SKILLS: AN  
EXPERIMENTAL STUDY <sup>1</sup>**

Dr. Melih DIKMEN<sup>2</sup>  
Prof. Dr. Murat TUNCER<sup>3</sup>

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<sup>1</sup> This study has been adapted from the PhD thesis accepted at Firat University Institute of Educational Sciences, Department of Educational Sciences.

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## **INTRODUCTION**

The concept of metacognition, which was introduced into the literature by Flavell, was defined as "the knowledge of one's own cognitive processes and the use of this information to control cognitive processes" (Flavell, 1985). With a shorter definition, metacognitive can be expressed as "thinking to think" (Livingston, 2003). Some researchers (Huitt, 1997; Hacker & Dunlosky, 2003) associated metacognitive skills with mental processes such as perception, recall, comprehension, application, analysis, and synthesis, and characterized metacognition as a process of awareness and control.

The metacognitive skills, which is the subject of many studies in the literature, is seen as a success in solving a new problem according to Tunca and Alkın-Şahin (2014), While it is directly related to the execution or management of many skills according to Dikmen and Tuncer (2018). These results have gained more importance with the suggestions in some studies (Livingston, 2003; Dikmen & Tuncer, 2018) that metacognitive skills should be taken into consideration in education and training processes. Metacognitive skill is seen as an important variable that predicts the potential of the individual (Dikmen & Tuncer, 2018) in cases where conventional solution methods do not yield results. Çakıroğlu (2007) determined that "not understanding" is the primary problem faced by many students in the learning process, and associated metacognitive skills with activities such as how to learn, remember, and control their own learning. In

addition to all these opinions and findings, it is stated in some studies that metacognitive skill is associated with intelligence (Borkowski, Carr & Pressley, 1987), and has a direct effect on students' academic achievement (Bağçeci, Döş, & Sarıca, 2011). According to Karaoğlan-Yılmaz, Yılmaz, Üstün and Keser (2019), metacognitive skill enables the individual to gain a critical perspective in planning, monitoring, and evaluating the current situation. In addition, as Kaysi, Aydemir, and Gürol (2017) stated, although there are many factors that affect academic success, it is stated that the importance of metacognitive skills in terms of students' academic achievement is undeniable (Bağçeci, Döş & Sarıca, 2011). These opinions and findings on metacognitive skills guided the researches aiming to obtain more comprehensive information by taking this concept together with some other variables in the literature. One of the variables considered in this context is the learning style.

The concept of learning style was first used by Rita Dunn in the 1960s (Arslan & Uslu, 2014). According to Dunn and Dunn (1993), each individual has their own way of learning or recalling information that they have just encountered. These ways that stand out as individual preferences are defined as their learning style (Dunn & Dunn, 1993). According to Kefee (1979), learning style is an indicator of psychological and emotional behaviors that form the structures of how learning environments are perceived by the learner, how they interact and how they react. Uzuntiryaki, Bilgin, and Geban (2003) state that the dominant learning styles of individuals have a strong effect on their academic achievement. In addition, in researches, learning styles

and attitudes towards learning (Dikmen, Tuncer, & Şimşek, 2018), study habits (Başbay, 2013), personality types (Kösece, Akbaşlı, & Üredi, 2016), attitude towards the teaching profession (Pehlivan, 2010), attitude towards the lesson (Tufan, 2006), learning motivation (Azizoğlu & Çetin, 2009), learning area (Demir, 2008), critical thinking skills (Beşoluk & Önder, 2010), academic achievement (Bilgin & Durmuş, 2003), leadership orientation (Arslan & Uslu, 2014), epistemological belief (Huglin, 2003), metacognitive skills (Zarrabi, 2017) and academic self-efficacy (Miles, 2004) are reported to be statistically significant.

When the studies conducted in recent years are examined, it is seen that there is an increasing interest in determining the relationship between learning styles and metacognitive skills (Anggoro et al., 2019; Tuncer & Bahadır, 2017). When the researches are examined, it can be said that there are generally relational survey-type studies, and the experimental studies are limited. In the literature, there is no experimental study examining the effect of teaching based on dominant learning styles on metacognitive skills. In this context, it is thought that the findings obtained from the research will add to the literature in terms of determining the relationship between learning styles and metacognitive skills.

## **1. METHOD**

In this study, one of the experimental research methods, pretest-posttest control group model was used. Karasar (2009: 96) explains this design as a model created by random assignment of two different

groups, which were randomly selected and initially unknown, as experimental and control groups. In this context, the symbolic expression of the model applied in the research is as in Figure 1.

Group	Pretest	Process	Posttest
Experiment	O <sub>1</sub> , LS	X	O <sub>2</sub>
Control	O <sub>1</sub>		O <sub>2</sub>

O<sub>1</sub>: Application of the Metacognitive Skills Inventory as a Pretest

LS: Application of the Grasha - Riechmann Learning Style Scale

O<sub>2</sub>: Application of the Metacognitive Skills Inventory as a Posttest

X: Implementation of Instruction structured according to Grasha-Reichmann Learning Style

**Figure 1.** Symbolic Representation of Research Pattern

As seen in Figure 1, Grasha - Riechmann Learning Style scale was applied in order to determine the dominant learning styles of pre-service teachers in the experimental group. Then, the metacognitive skills scale was applied as a pretest to the experimental and control groups. The teaching activities in the experimental group were arranged according to the characteristics of Grasha-Riechmann learning styles. In the arrangement of the teaching activities in the control group, without considering the dominant learning styles of the students, the Higher Education Council (YÖK) used methods and techniques suitable for the content of the Instructional Principles and Methods course. At the end of the experimental process, the metacognitive skills scale was applied as a posttest. The educational activities carried out in the experimental and control groups were carried out by the same lecturer.

## **Participants**

The study group of the research consists of teacher candidates studying in the third grade of the Turkish Language Teaching program in the Faculty of Education of a university. In line with the purpose of the study, experimental and control groups were formed from pre-service teachers in the Turkish Language Teaching program with an unbiased assignment. There were 26 (47.3%) students in experimental group and 29 (52.7%) students in control group.

## **Data Collection Tools**

In the study, the data collection tool developed by Riechmann and Grasha (1974) and called the Grasha - Riechmann Learning Styles Scale was used to determine the dominant learning styles of pre-service teachers. The scale consists of sixty items. The Grasha and Riechmann Learning Styles Scale consists of seven different learning styles (independent, avoidant, collaborative, dependent, competitive, participant). There are ten items on the scale for each learning style. The scale was adapted to Turkish by Kılıç (2011). In the adaptation study, the Cronbach Alpha coefficient calculated to determine the reliability of the scale was found to be .91. In this study, the Cronbach Alpha coefficient for the whole scale was calculated as .73.

The Metacognitive Skills Scale used in the study was developed by Tuncer and Kaysi (2013). It is stated that the scale has eighteen items and a four-dimensional structure, and this structure explains 56.59% of the total variance. The dimensions of the scale are entitled "thinking skill", "reflective thinking skill for problem-solving", "decision

making skill" and "alternative assessment skill". The Cronbach Alpha coefficient for the whole scale was calculated as .91 by Tuncer and Kaysi (2013). In this study, the Cronbach alpha coefficient calculated to determine the reliability of the scale is .88.

### **Experimental Process**

In the teaching activities during the experimental process, the characteristics of independent, avoidant, collaborative, dependent, competitive and participant students in Grasha and Riechmann's learning style were taken into account. In this context, the dominant learning styles of the experimental group teacher candidates who participated in the study were determined first. The dominant learning styles of teacher candidates are as in Table 1.

**Table 1.** Predominant Learning Styles of the Experimental Group Teacher Candidates According to the Grasha-Riechmann Learning Styles Scale

<b>Learning Styles</b>	<i>f</i>	%
Dependent	5	19.2
Independent	6	23.1
Cooperative	7	26.9
Competitive	3	11.5
Participation	4	15.4
Avoidant	1	3.8
Total	26	100.0

As seen in Table 1, when the dominant learning styles of the experimental group teacher candidates participating in the study were examined, it was determined that 5 (19.2%) had dependent learning style, 6 (23.1%) had independent learning style, 7 (26.9%) had collaborative, 3 (11.5%) had a competitive learning style, 4 (15.4%)

had participant learning style, and 1 (3.8%) had an avoidant learning style.

Clear instructions were included in the teaching activities designed for teacher candidates who had dependent learning style. The instructor assumes the role of a guide for teacher candidates who had dependent learning style. A lesson environment where active participation was provided in teaching activities was created for teacher candidates had participant learning style. Teaching activities such as preparing homework and reports were frequently used for teacher candidates who had avoidant learning style. For teacher candidates with a cooperative learning style, teaching activities, which usually included group work, were held for in-class and out-of-class teaching activities. The activities aimed at creating a continuous competitive environment in the classroom environment were used for the teacher candidates who had competitive learning style. The research was carried out for a semester (12 weeks).

### **Analysis of Data**

The data obtained in the study were analyzed using the licensed SPSS (Statistical Package for Social Sciences) 21.0 program. Descriptive statistical methods (number, percentage, mean, standard deviation) were used while evaluating the data. Since the frequencies in the experimental and control groups formed within the scope of the study were below thirty, nonparametric analyzes were used in paired comparisons (Russell & Purcell, 2009). In addition, in the study, in the scoring of the scales, "strongly disagree (1.00-1.79)", "disagree (1.80-

2.59)", "neutral (2.60-3.39)", "agree (3, 40-4,19)", "strongly agree (4,20-5,00)" ranges were taken into consideration.

## 2. FINDINGS

In the study, firstly, pre-test mean scores and standard deviations for the metacognitive skills scale of pre-service teachers in the experimental and control groups were calculated. The findings obtained are given in Table 2.

**Table 2.** Descriptive Findings Regarding the Pre-test Application of the Metacognitive Skills Scale

Scale and Sub-dimensions	Group	N	$\bar{x}$	ss
Metacognitive Skills Scale (overall)	Control	29	3.74	0.47
	Experiment	26	3.68	0.66
Thinking Skill Proficiency (TSP)	Control	29	3.90	0.54
	Experiment	26	3.91	0.65
Reflective Thinking towards Problem Solving (RTPS)	Control	29	3.42	0.65
	Experiment	26	3.32	0.83
Decision Making Competence (DMC)	Control	29	4.22	0.73
	Experiment	26	4.13	0.76
Alternative Assessment Skill (AAS)	Control	29	3.39	0.66
	Experiment	26	3.33	0.87

As seen in Table 2, it was determined that the pre-test mean scores for the metacognitive skills scale of the pre-service teachers in the control group were  $(3.74 \pm .47)$ , and the experimental group teacher candidates were  $(3.68 \pm .66)$ . When the pre-test mean scores for the sub-dimensions of the metacognitive skills scale of the pre-service teachers in the control group were examined, it can be seen that TSP is  $(3.90 \pm .54)$  level, RTPS is  $(3.42 \pm .65)$  level, DMC is  $(4.22 \pm .73)$  level and AAS is  $(3.39 \pm .66)$  level. When the pre-test mean scores for the sub-dimensions of the metacognitive skills scale of the pre-service

teachers in the experimental group were examined, it can be seen that TSP is ( $3.91 \pm .65$ ) level, RTPS is ( $3.32 \pm .83$ ) level, DMC is ( $4.13 \pm .76$ ) level, and AAS is ( $3.33 \pm .87$ ) level. According to these findings, it can be said that the pre-test mean scores for the metacognitive skills of the experimental and control group teacher candidates are at the level of “agree”.

After the descriptive findings in the study, the pre-test scores of the pre-service teachers in the experimental and control groups regarding the metacognitive skills scale were compared between the groups. The findings obtained are given in Table 3.

**Table 3.** Comparison of the Pre-test Scores of the Metacognitive Skills Scale in Terms of Experimental and Control Groups

		Grup	N	$\bar{x}_{sira}$	$\sum_{sira}$	U	z	p
Metacognitive Skills Scale (overall)	Control	29	27.52	798.00	363.000	-.236	.813	
	Experiment	26	28.54	742.00				
	Total	55						
Thinking Skill Proficiency (TSP)	Control	29	27.31	792.00	357.000	-.340	.734	
	Experiment	26	28.77	748.00				
	Total	55						
Reflective Thinking towards Problem Solving (RTPS)	Control	29	29.21	847.00	342.000	-.595	.552	
	Experiment	26	26.65	693.00				
	Total	55						
Decision Making Competence (DMC)	Control	29	29.10	844.00	345.000	-.545	.586	
	Experiment	26	26.77	696.00				
	Total	55						
Alternative Assessment Skill (AAS)	Control	29	28.76	834.00	355.000	-.373	.709	
	Experiment	26	27.15	706.00				
	Total	55						

As seen in Table 2, it was determined that the pre-test mean scores of the experimental and control group teacher candidates regarding the metacognitive skills scale and all its sub-dimensions did not differ

significantly ( $p > .05$ ). In this context, it can be said that the pre-experimental metacognitive skills of the experimental and control group teacher candidates were at a similar level.

After the metacognitive skills of the experimental and control group pre-service teachers were compared before the experimental process, the posttest scores of the metacognitive skills scale were compared at the end of the experimental process. In this direction, descriptive findings regarding the posttest scores of the metacognitive skills scale of the experimental and control group teacher candidates are calculated and given in Table 4.

**Table 4.** Descriptive Findings Regarding the Posttest of the Metacognitive Skills Scale

<b>Boyutlar</b>	<b>Grup</b>	<b>N</b>	<b><math>\bar{x}</math></b>	<b>ss</b>
Metacognitive Skills Scale (overall)	Control	29	3.61	0.31
	Experiment	26	3.83	0.42
Thinking Skill Proficiency (TSP)	Control	29	3.70	0.53
	Experiment	26	4.03	0.45
Reflective Thinking towards Problem Solving (RTPS)	Control	29	3.39	0.52
	Experiment	26	3.42	0.73
Decision Making Competence (DMC)	Control	29	3.97	0.63
	Experiment	26	4.22	0.65
Alternative Assessment Skill (AAS)	Control	29	3.36	0.45
	Experiment	26	3.59	0.64

As seen in Table 4, it was determined that the pre-test mean scores for the metacognitive skills scale of the pre-service teachers in the control group were  $(3.61 \pm .31)$ , and the experimental group teacher candidates were  $(3.83 \pm .42)$ . When the pre-test mean scores for the sub-dimensions of the metacognitive skills scale of the pre-service teachers in the control group were examined, it can be seen that TSP is  $(3.70 \pm .53)$  level, RTPS is  $(3.39 \pm .525)$  level, DMC is  $(3.97 \pm .63)$

level and AAS is  $(3.36 \pm .45)$  level. When the pre-test mean scores for the sub-dimensions of the metacognitive skills scale of the pre-service teachers in the experimental group were examined, it can be seen that TSP is  $(4.03 \pm .45)$  level, RTPS is  $(3.42 \pm .73)$  level, DMC is  $(4.22 \pm .65)$  level, and AAS is  $(3.59 \pm .64)$  level. According to these findings, it can be said that the pre-test mean scores for the metacognitive skills of the experimental and control group teacher candidates are at the level of “agree”.

After the descriptive findings about the metacognitive skills scale, the posttest mean scores of the pre-service teachers in the experimental and control groups on the metacognitive skills scale were compared between groups. The findings obtained are given in Table 4.

**Table 5.** Comparison of the Posttest Scores of the Metacognitive Skills Scale in Terms of Experimental and Control Groups

	Grup	N	$\bar{x}_{sira}$	$\sum sira$	U	z	p
Metacognitive Skills Scale (overall)	Control	29	23.88	692.50	257.500	-2.022	.043*
	Experiment	26	32.60	847.50			
	Total	55					
Thinking Skill Proficiency (TSP)	Control	29	23.53	682.50	247.500	-2.209	.027*
	Experiment	26	32.98	857.50			
	Total	55					
Reflective Thinking towards Problem Solving (RTPS)	Control	29	27.55	799.00	364.000	-.221	.825
	Experiment	26	28.50	741.00			
	Total	55					
Decision Making Competence (DMC)	Control	29	24.60	713.50	278.500	-1.675	.094
	Experiment	26	31.79	826.50			
	Total	55					
Alternative Assessment Skill (AAS)	Control	29	25.72	746.00	311.000	-1.124	.261
	Experiment	26	30.54	794.00			
	Total	55					

As seen in Table 5, when the posttest scores of pre-service teachers in the experimental and control groups regarding metacognitive skills were compared, it was determined that the whole scale and TSP sub-dimension differed significantly in favor of the experimental group teacher candidates ( $p < .05$ ). It was found that there was no significant difference between groups in terms of other sub-dimensions of the scale ( $p > .05$ ). The processing of many cognitive structures together in the learning activities carried out in the experimental groups may have positively affected the metacognitive skills of the teacher candidates. In this direction, it can be said that teaching based on dominant learning styles is effective in the development of metacognitive skill.

## **CONCLUSION**

When the findings obtained as a result of this study were examined, no significant difference was found in terms of pre-test scores of the experimental and control group teacher candidates regarding the metacognitive skills scale. At the end of the experimental process, when the metacognitive skills of the pre-service teachers in the experimental and control groups were examined again, a significant difference was observed in favor of the experimental group teachers in terms of the overall scale and the thinking skills competencies sub-dimension. Therefore, it can be said that teaching based on dominant learning styles is effective in developing teacher candidates' metacognitive skills. The finding that there is a moderately significant correlation between learning styles and metacognitive skills in the study conducted by Abou-Ameerh (2014) coincides with the findings

of this study. In addition, in the study conducted by Abou-Ameerh (2014), it was found that learning style is an important predictor of metacognition. It has been reported that students' learning styles predicted approximately 50.3% of the variance in their cognitive processes. Similarly, in a study conducted by Jafarpanah (2016), it was found that there is a positive significant relationship between learning styles and metacognitive strategies. Many researchers (Bouffard, Boisvert, Vezeau & Larouche, 1995; Marton & Sa'ljo '1997; Snow 1989; Vermetten, Lodewijks & Vermunt, 2001) concluded that learning styles are related to metacognition. According to all these research findings, metacognitive skills and learning styles can be considered as related variables. It is thought that this determined relationship can be benefited from in education and training processes. Teachers can use learning style as an effective variable about their students' metacognitive skills.

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**CHAPTER 2**

**THE USE OF MUSIC IN THE MOST WATCHED  
ADVERTISEMENTS ON YOUTUBE IN TURKEY**

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## **INTRODUCTION**

Advertising and music are two different arts. Music is sometimes used to increase the power of advertising. The music used in the advertisement can contribute to the advertisement reaching its purpose. The combination of music and advertising is effective in the process of reaching the consumer and creating the intended communication effect on the consumer. Music, which is one of the fun, universal and emotional common denominators of humanity provides important advantages when used in advertising (Batu, 2010: 781). Music is regarded as an important advertising background characteristic (Allan, 2006). Music is a branch of art. In addition, advertising has an art dimension. These two areas that require creativity and work benefit each other. Elements and music used in the advertisement should be in a meaningful order for the advertisement to be remembered (Sehultz, 1997, 8).

The music used in the advertisement has many contributions. While music is used in advertisements, it can draw attention to the features of the product, as well as help in evaluating and interpreting the images of the product. With the advertising messages accompanied by the song, it is aimed to be more memorable. While the features of the product are included in the song in the commercials, it is aimed to accompany the audience, enjoy watching the advertisement, and be remembered by repeating the name of the product in the song. In addition, ad music can help separate advertisements from each other (Uğur, 2011:3). Music in advertising can be used to attract the

listener's attention, carry the advertised product's message, and act as a mnemonic device. Music also creates excitement and adds energy to the message being conveyed in an advertisement. Clearly, advertisers view music as having sales potential (Heaton and Paris, 2006:1). Advertising music is generally accepted as part of the creative strategy in the advertising literature. The chosen advertising medium determines whether the music can be used with visual elements in the advertisement (Aytekin, 2012: 23). In this research, the use of advertisement music in social media, which is one of the new communication media, is discussed. The purpose of this research was to determine the music of the most watched advertisements on YouTube. Therefore, the most-watched advertisement music on YouTube in Turkey in 2019 was analyzed by content analysis method. When the literature was examined, it was seen that scientific publications on the subject were insufficient. Most of the studies in the literature were about social media and music sales (Dhar and Chang, 2009; Oh and Park, 2012; Dewan and Ramaprasad, 2014; Wallach, 2014). Therefore, study is important.

## **1. ADVERTISING MUSIC AND EFFECTS**

Advertising is using every branch of art to sell a product (Yücel, 1998: 2). In advertisements, messages are tried to be conveyed by attracting the attention of the target audience. The target audience perceives and interprets the message. Then they develop an attitude towards the product. This attitude also shows the individual's attitude towards the brand (Yeygel and Yakın, 2007: 108). Music can reflect the crises of

the society, the lifestyle of the society, its interests, national or religious identity definitions, family and friendship relations, and even the economic structure. These facts of the society are mentioned in the advertisements (Uğur, 2011: 4). The product image can be created with the correct and appropriate advertising music. Thus, the product can be easily remembered and the sales level may increase (Tanyıldızı, 2011:5). Advertisers use popular music in various ways to involve, engage and ultimately persuade the potential consumer to purchase their product or service. Whether as foreground or background, music is integrated into commercials in one of several ways. Music is sometimes written, scored, and recorded for advertising certain products or services (Allan, 2006: 434).

There are two dominant theoretical approaches in commercial music study: classical conditioning approach and emotional response approach. While these music conceptualizations are different, both imply that exposure to commercial music can provoke automatic, emotional responses. According to the first, emotional reactions are seen as explicit behavior like a smile. The second highlights internal emotions or situations that cannot be perceived cognitively (Chou and Lien, 2010: 316). Music is often used in advertisements for marketing purposes. Retailers play a variety of music genres, including international, national and regional music to entice consumers. However, advertisers use pre-existing, modified or original music in ads to influence the purchasing behavior of consumers (Raja et. Al. 2019: 872). Many advertisers use popular music in their advertisements to resonate with consumers, get them to participate in

advertisements, help differentiate their brands, and increase sales. For example, Pepsi used Michael Jackson's songs in its commercials in 1983 (Chou and Lien, 2010: 316).

Music is the aesthetic dimension of voice communication. It is a special form in which communication is organized in a defined harmony and beauty (Bati, 2010: 790). Music affects people more than other arts with its structure. It magically turns into the most effective art (Lasserre, 1997, 9). Music is an art for expressing our emotions and it shows a profuse affective world to us by combining different basic elements (Mao et al. 2005: 685). Music is one of the most highly developed and structured of the auditory media and communicates information in parallels streams (Vickers and Alty, 2002, 437; Tanyıldızı, 2011: 2). It is thought that music was first used by street vendors in advertising. It is accepted that the melodies that the sellers sing aloud while promoting their goods are the first examples of advertisement music (Özulu, 1994: 67). There are four different ways to use music in advertising. The use of music in the advertisement may differ from the advertisement to the advertisement. The advertisement music varies according to the story of the advertisement, the players playing in the advertisement or the message given in the advertisement. It would not be correct to classify the music used in the advertisement in one genre. It is possible to list the advertisement music as follows (Gündüz and Öztürk, 2017: 143):

- Jingle: It has meanings like background music. This music is used in many ways. For example, inter-spot music on the radio

is also called jingle. The meaning is different in the advertisement. They are oral music works arranged for the advertised brand. Memorable melodies are used that can attract attention (Özulu, 1994: 76).

- Brand Signal Music: When the brand's logo or name comes out, there is a short-lived melody. This melody is often used at the end of the advertisement. Over time, this melody becomes the musical expression of that brand (Güven, 2012; Gündüz and Öztürk, 2017)
- Popular Music: It is a portion of a song used by advertisers, recorded by commercial music-producing artists. The purpose of doing this is that many viewers know that music and have positive thoughts towards it. They transfer their positive thoughts about the song to the brand that is wanted to be promoted in the advertisement (Aytekin, 2012: 24; Gündüz and Öztürk, 2017: 144).
- Background Music: While the music continues in the background during the advertisement, the presenter is talking about the product. The background music in the advertisement adds speed and emotion to the advertisement. This commercial music is usually non-verbal (Aytekin, 2012: 24; Gündüz and Öztürk, 2017: 144).

The purpose of music in advertising is listed as entertainment, continuity of the broadcast, catchy, providing a fluent language, targeting and creating authority. Six basic ways that music can

contribute to effective advertising have been identified: 1) entertainment, 2) structure / continuity, 3) recall, 4) language, 5) targeting, and 6) authority establishment (Huron, 1989: 557-574). Also, music has been widely used in advertising because it is believed to improve recall of the advertised product (Heaton and Paris, 2006:1). Music plays a more important role in commercials than a melody in the background alone. A well-prepared commercial music helps in shaping behavior in favor of the product and creating strong effects on the audience (Uğur, 2011:3). The music used in advertisements facilitates both the transmission of product information and the tracking of the advertisement (Gorn, 1982: 94). Music enables direct communication with people. Nowadays, when consumers' interest in advertisements is decreasing, commercials edited with only technical visualizations are no longer sufficient. Music has emerged from the position of supporting the image with a good story and fiction. Music has been an indispensable element in sensory marketing methods used in advertisements (Turhan and Sayımer, 2018: 124).

## **2. USE OF MUSIC IN SOCIAL MEDIA ADVERTISEMENTS**

Social media is a commonly used term for online tools and websites that create mutual interaction by allowing users to share information, thoughts, interests and knowledge (Sayımer, 2009). Social networks, social media and social networking pages can fulfill the demands of millions of people at the same time. However, it brings together a mass of millions at the same time. Thanks to this environment, communication is easy wherever people are. Private information,

activities and experiences of people are published on these sites and environments (Brown and Fiorella, 2013: 1).

Society's interest in social media is increasing day by day. Especially, the effect of social media on consumers has made it possible to examine it in academic fields. Most of the current studies highlight the usefulness of new social media as a new marketing tool replacing traditional marketing media such as TV and newspapers (Oh and Park, 2012: 370). The social media platform provides a good opportunity to effectively brand products. Social media platforms have become popular. This is because these social media sites have become a good source for news updates on various topics around the world. Social media mediums can provide detailed information to the audience. In addition, social media provides an interactive environment for consumers (Gupta et al., 2017: 18558). For this reason, social media ads have also become important.

Online advertising is a new form of advertising. It enables the internet portal where it is published to generate income. For companies that want to promote a product or service, online advertising can reach more people. Internet advertisements that aim to attract users' attention are more effective than a randomly selected advertisement (Manolescu and Laghaeian, 2010:1). Visual and audio media tools have been effective in almost every field of the 21st century. This effect has brought about changes. One of these fields is undoubtedly the art of music. Music-based applications have become one of the indispensable elements of visual and auditory media tools (İmik and Haşhaş, 2015:

218). For example, there is a physical limitation of YouTube as a music format. People can listen to a music video whenever and wherever they want, as long as they have a mobile internet device with a YouTube app (Oh and Park, 2012: 373). Therefore, advertisements in social media and music used in these advertisements are also important.

### **3. METHOD**

The method followed in the study is stated in the following headings.

#### **Purpose of the Research**

In this research, the music of the most watched advertisements on YouTube was examined. The purpose of this research was to determine the music of the most watched advertisements on YouTube. Thus, it was tried to explain the use of music in the most watched advertisements on YouTube.

#### **The Sample of the Research**

In the study, Campaign Turkey has benefited from the data provided by the city. Based on these data, the most watched advertisements on YouTube in Turkey in 2019 were selected as examples (Campaign, 2019). There were 23 advertisements on this website. 15 of these advertisements selected by lot were resolved.

#### **Research Hypothesis**

The hypothesis of the research is that the music of the most watched advertisements on YouTube is Pop music. Jingle advertisement music is mostly used in these advertisements.

## **Research Method**

Content analysis method was used in the research. Content analysis is a research technique used to draw repeatable and valid conclusions about its content from the data (Krippendorff 1980: 25). Content analysis is an unbiased, systematic and quantitative description of the presented content of communication (Berelson 1952: 17). During the content analysis, the following categories were created: how many people watched the advertisements, the advertised product, and the type of music used in the advertisement, the duration of the music used in the advertisement, the advertisement music type. The data obtained were written in tables. Research findings were interpreted.

## **4. ANALYZING AND INTERPRETING FINDINGS**

The data obtained as a result of the content analysis in the research were given in the tables below. Interpretations were made under the tables. While creating the tables, a classification was made according to the sector in which the advertised brand is located.

**Table1.** Analysis of Advertisement Music For Brands In The Food Sector

<b>Food Type</b>	<b>Number of views</b>	<b>Advertisement time</b>	<b>Time of advertisement music</b>	<b>Music type</b>	<b>Type of advertisement music</b>
Chocolate	2.807.696	0.32 sec.	0.32 sec.	Pop	Jingle
Cola	1.102.989	0.25 sec.	0.25 sec.	Pop	Popular Music
Tea	4.227.169	0.30 sec.	0.30 sec.	Instrumental music	Jingle
Yoghurt	3.986.757	0.34 sec.	0.34 sec.	Turkish music	Background Music
Chocolate wafer	4.476.575	0.17 sec.	0.17 sec.	Turkish art music	Popular Music
Coffee	9.305.982	0.27 sec.	0.27 sec.	Turkish pop music	Background Music (popular music)

It was observed that the music of the most watched advertisement on You Tube in the food sector advertisements was Turkish. Turkish Pop Music was used as music in the advertisement. In addition, background music was used as a type of advertising music. An old, popular Turkish pop song was used in the advertisement without words. Apart from that, looking at the table, it was seen that the music of the most watched advertisements was Turkish music. The use of advertisements music was seen to be Jingle and Popular Background Music. In all advertisements in Table 1, advertisement time was the same as music time used in advertisement.

**Table 2.** Analysis Of Advertisement Music For Brands In The Financial Sector

Type of financial sector	Number of views	Advertisement time	Time of advertisement music	Music type	Type of advertisement music
Internet banking	480.210	0.37 sec.	0.04 split second	Pop	Brand Signal Music
Credit card	1.413.944	0.59 sec	0.59 sec.	Pop	Popular Music

In Table 2, financial sector advertisement music was included. Among the advertisements analyzed, Brand Signal Music was used only in the advertisement related to "internet banking". The type of music used was Pop music. Popular music was used as a type of advertisement music. In the "Internet banking" advertisement, the advertisement time was not the same as the music time used in the advertisement. Only music was used at the very end of the advertisement.

**Table 3.** Analysis of Advertisement Music For Brands In The Cleaning Sector

Type of cleaning product	Number of views	Advertisement time	Time of advertisement music	Music type	Type of advertisement music
Washing powder	1.808.836	0.20 sec.	0.20 sec.	Pop	Jingle
Shampoo	6.286.331	0.30 sec.	0.30 sec.	Pop	Jingle

In Table 3, cleaning sector advertisement music was included. Pop Music was used as the music type in these advertisements. Jingle was

used as the advertisement music type. New music was made for advertising. The advertisement time was the same as the music time used in the advertisement.

**Table 4.** Analysis of Advertisement Music For Brands In The Electronics Sector

Type of electronic product	Number of views	Advertisement time	Time of advertisement music	Music type	Type of advertisement music
Mobile Phone 1	13.712.342	1.29 min.	1.29 min.	Turkish music (Instrumental)	Background Music
Mobile Phone 2	4.696.108	0.30 sec.	0.30 sec.	Classic music	Background Music

In Table 4, advertisement music of the brands in the electronics sector was included. The most watched advertisement on You Tube in 2019 in Turkey was also in this sector. When this advertisement was analyzed, Turkish music was used as the type of advertisement music. There was no word in music. Background Music was used as the advertisement music type in both advertisements. The advertisement time was the same as the music time used in the advertisement.

**Table 5.** Analysis of Advertisement Music For Brands In The Other Sector

<b>Sector name</b>	<b>Number of views</b>	<b>Advertisement time</b>	<b>Time of advertisement music</b>	<b>Music type</b>	<b>Type of advertisement music</b>
Online shopping site	10.615.651	0.57 sec.	0.52 sec.	Pop	Jingle
Civil Society Organization	3.503.948	0.50 sec.	0.50 sec.	Turkish art music	Popular Music
Sneakers	5.310.229	1.20 min.	1.20 min	Pop	Background Music

In Table 5, the other sector advertisement music was included. In these categories, as there was only one advertisement, they were all in the same table. Three different types of advertisement music were used in three different advertisements in the table. Pop music was used in both advertisements as the type of music. Only, in the "Online shopping site" advertisement, the advertisement time and the advertisement music time are different. The advertisement music started 5 milliseconds after the advertisement started.

## **CONCLUSION**

Music contributes to the areas where it is used in communication. One of these areas is advertising. By using music in advertisements, the product can be remembered and brand awareness can be created. In addition, the emotion desired to be expressed can be analyzed more

easily with the music used in commercial films. In this research, the most watched advertisement on You Tube in Turkey were examined. The results obtained with the content analysis are listed below:

- Pop Music was used in the most watched YouTube advertisements, but among these advertisements, the most watched ones were those that used Turkish music.
- Jingle and Background Music were mostly used as the advertisement music type. The use of Turkish music was more common in Background Music. Popular Turkish music was used as Background Music in some advertisements.
- Brand Signal Music was not common use in advertisement.
- Usually, the advertisement time and the advertisement music time were the same. Music started when the advertisement started. The music was over when the advertisement is over.

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**CHAPTER 3**

**THE EFFECT OF SUBJECTIVE WELL-BEING OVER THE  
RELATIONSHIP BETWEEN PSYCHOLOGICAL WELL-  
BEING AND QUALITY OF LIFE**

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## **PREFACE**

Our interest on this topic comes from the theoretical background which provides links between psychological well-being (PWB), life satisfaction (LS) and quality of life (QoL). The theory puts PWB in the center of pleasant life. WHO (2019) definition of QoL links psychological states to QoL, with which SWB is converged (Camfield and Skevington, 2008) who deduce that LS is ‘nested’ within overall QoL, and subordinate to the overall concept. This links LS to QoL. Self-reported well-being assessment is based on distinct psychological state embedded in mindsets (cognitive) of individuals (DeNeve and Cooper 1998; Larsen and Ketelaar 1991; Gray 1987; Tellegen 1985), which links psychological well-being to subjective well-being. When the links are combined, the picture suggests an indirect effect of subjective well-being over the relationship between PWB and QoL. Hence, we hypothesized that LS was a mediator over the relationship between PWB and QoL.

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## **INTRODUCTION**

Theory of well-being has emerged from two perspectives: feel (positive psychology) and think (life satisfaction). According to theory of authentic happiness, the center of pleasant life is positive psychology (Seligman 2011), where Ryff and Singer (2008) put six core dimensions of psychological well-being. According to The Conceptual Referent Theory (CRT) of Happiness, well-being is not only about how one feels, but also about what one thinks (Rojas 2005), which Seligman (2011) calls it “engagement or life flow” in the theory of authentic happiness. Happiness theories are developed from philosophical views of Aristotle’s Nichomachean Ethics written in 350 B.C. from which “Eudaimonia” is translated as happiness by Bradburn (1969). Ryff (2008) claimed that Bradburn had left out psychological part of well-being when translating from Aristotle’s Nichomachean Ethics. Diener (2006) refers to CRT in his description of SWB as an umbrella term. Following CRT of Happiness and the theory of authentic happiness, cognitive factor is considered and participants are asked what they think at the time of appraising their life.

Based on the theory of well-being, psychological well-being (PWB) is taken as independent variable, life satisfaction (LS) as possible mediator and quality of life (QoL) as dependent variable in mediating model. To shed some light to well-being literature, pairwise association of well-being, association between latent well-being and

their factors, and mean differences in well-being by socio-demographic variables are investigated.

This study focuses on finding whether life satisfaction (SWB) is a mediator between PWB and QoL by using mediating models of Ring et al. (2007) and Keyes et al. (2002), and also using hierarchical regression models. For factor and path analyses are done using Structural Equation Modelling (SEM) in Stata 14. Furthermore, whether there are mean differences in well-being by socio-demographic variables is investigated using Multivariate Analysis of Variance (MANOVA).

Previous research of mediating effects focused on significance of association between PWB, SWB and QoL using mediating models and making inferences from implications. Ring et al. (2007) indicates that for SWB to be a mediator, three conditions should be met. Hierarchical regression analysis is used to find indirect effect of indirect effect of independent variable such that

The rest of the chapter is organized as follows: In the methodology section, after sample size requirement, reliability and construct validity of data are checked, statistical methods are described. Hypothesis and models are stated; and dependent and independent variables are introduced. In the findings section, descriptive findings and model estimation results are given. First, descriptive statistics of life satisfaction with respect to explanatory variables is provided. Second, relationships between SWB, PWB and QoL are determined.

The study concludes with confirmation of the hypothesis and possible implications to improve QoL.

## **1. METHODOLOGY**

### **1.1. Data Source**

In January 18-28, 2019, a social survey was conducted to 980 residents in Adana. Survey includes SWLS, PWB, QoL, social capital, environment perception and perceived spatial items. The minimum sample size requirement was met with 980 residents participating in the survey. Minimum sample size needed is estimated to be 403. Stata 14 and SPSS 16 are used for data analyses.

### **1.2. Psychological Well-Being**

PWB was measured using the 42 item scale of psychological well-being questionnaire (Ryff 1989). The questionnaire includes positive and negative items. Each dimension has seven items with each item on a score ranging from 1 to 5, respondents indicated degree of agreement from strongly disagree to strongly agree. Negatively phrased items are recoded to match positive phrased items in evaluation. The min-max scores for each scale is 5-35 with higher score showing higher PWB. Each scale was divided by 35 before summing six scales. Total is divided by 210 to find mean PWB. Cronbach alpha value is estimated to be 0.91.

### **1.3. Subjective Well-Being**

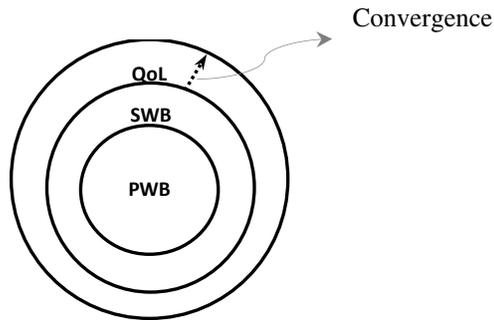
SWB was measured using SWLS of Diener et al. (1985). SWLS measures the individual's general life satisfaction. Seven point rating scale is dropped to five by combining somewhat disagree and disagree both to disagree, and somewhat agree and agree both to agree. "I am satisfied with my life" on a score ranging from 1 to 5, respondents indicated degree of agreement from "strongly disagree" to "strongly agree". The range for each scale is 5-25 with higher score indicating higher SWLS. Each scale was divided by 25 before summing five scales. Total is divided by 125 to find mean SWLS. Cronbach alpha value is estimated to be 0.87.

### **1.4. Quality of Life**

Quality of Life (QoL) is based on single item question: "Think about your life in the last two weeks. How would you rate your quality of life?" The five-point scale is from very bad to very good (Ala-Mantila et al 2018). These scores rate judgement of individual's overall QoL. WHO (2019) describes QoL and effects of health, personal characteristics, social relationships, and environment over QoL. At a particular time, as hopes and expectations are met based on present experiences, higher QoL can be achieved (Calman 1984). This implies convergence of life satisfaction to QoL (Camfield and Skevington 2008).

## 1.5. Basic Inclusion Picture

Based on the theory, a simple figure is generated for inclusion of well-being.



**Figure 1.** Basic Inclusion Picture Based On Well-Being Theory

## 1.6. Structural Equation Modelling

Structural Equation Modelling (SEM) is a combination of factor and path analyses (Ring et al 2007, Keyes et al. 2002). SEM models are adapted from Keyes et al. (2002). Model 4 is used to estimate (standardized) parameters of the well-being model with two oblique factors, and Model 6 is used to estimate (standardized) parameters of the well-being model with two oblique factors and one common indicator.

## 1.7. Hypothesis

Hypothesis to be confirmed is that “SWB is a mediator of PWB and QoL”.

## 2. RESULTS

### 2.1. Descriptive Findings

Table 1 reports summary of descriptive statistics of the variables. Mean value of QoL is slightly over neutral category, SWB mean total score 14.46 is slightly below the midrange 15 and mean score of the third factor of satisfaction with life scale, SWLS3, is about 3.19 which has the greatest mean score. SWLS3 seems to be the representative of SWLS.

**Table 1.** Descriptive Statistics

Variable	Mean	Std. deviation	Min	Max
QoL	3.31020	.850223	1	5
SWB	14.4602	4.346044	5	25
AU	24.22449	3.862897	12	35
EM	23.08163	3.382263	11	35
PG	23.90306	3.645949	13	35
PR	24.93878	4.650209	9	35
PL	24.9398	4.24931	11	35
SA	23.1051	4.232779	9	35
SWLS1	2.866327	1.069347	1	5
SWLS2	2.840816	1.038172	1	5
SWLS3	3.186735	1.00399	1	5
SWLS4	3.069388	1.051912	1	5
SWLS5	2.496939	1.191128	1	5

Table 2 reports percent distribution of demographic characteristics of survey participants. The results indicates that 45.7 percent of the participants is in early young category, 56 percent is women, 44 percent is men, 73.8 percent is married and 82.5 percent have 13 years or more education.

**Table 2.** Frequency Distribution of Demographic Variables

Demographic variables	Categories	Frequency percent
Age	Early Young 18-23	45.7
	Mid Young 24-29	34.1
	Late Young 30-35	11.7
	Early Midlife 36-41	5.9
	Mid Midlife 42-47	2.6
Gender	Women	56.0
	Men	44.0
Marital status	Married	73.8
	All others	26.2
Education	12 years or fewer	17.5
	13 years or more	82.5

## 2.2. Pairwise correlations

Pairwise correlations for QoL, SWB and PWB are given in Table 3.

**Table 3.** Pairwise Correlations Between QoL, SWB and PWB Components

	QoL	SWB	PWB
QoL	1.000		
SWB	0.4340*	1.000	
PWB	0.2728*	0.4247*	1.000

Pairwise correlations for QoL and well-being are given in Table 4. All indicators are intercorrelated small to modest degree in expected direction. Correlations between QoL and six PWB dimensions are low 0.10 to 0.35 with  $p < .001$ . Correlations between QoL and SWB is low to moderate  $r = 0.43$  with  $p < .001$ . Modest correlation is between SA and EM,  $r = 0.61$ .

**Table 4.** Pairwise Correlations Between QoL and Well-Being Components

	QoL	SWB	AU	EM	PG	PR	PL	SA
QoL	1.0000							
SWB	0.4276*	1.0000						
AU	0.1017*	0.2536*	1.0000					
EM	0.1798*	0.3746*	0.4434*	1.0000				
PG	0.1997*	0.2568*	0.3325*	0.4763*	1.0000			
PR	0.2029*	0.3367*	0.4742*	0.5812*	0.527*	1.0000		
PL	0.1607*	0.2144*	0.4289*	0.4607*	0.598*	0.523*	1.0000	
SA	0.3539*	0.5048*	0.4455*	0.6122*	0.506*	0.562*	0.477*	1.0000

\*Significant at 1%

### 2.3. Multivariate Analysis of Variance

There are no significant mean differences in all DV's by gender. There are no significant mean differences in all DV's by education (PWB:  $F = 1.89$ ,  $p = 0.09$ , SWB:  $F = 1.82$ ,  $p = 0.11$  and QoL:  $F = 0.82$ ,  $p = 0.53$ ). There are no significant mean differences in QoL and PWB by age, but there are significant mean differences in SWB by age ( $F$  value is 2.34 with  $p < .01$ ). There are significant mean differences in PWB by marital status ( $F$  value is 2.64 with  $p < .05$ ).

### 2.3.1.MANOVA of SWB and PWB

Table 5 shows the results for significance of mean difference in SWB by age and marital status. Only the 30-35 age category relative to 18-23 shows significance. Only the married category relative to single shows significance.

**Table 5.** Significance of Mean Difference in SWB By Age and Marital Status

Age (18-23)	Coefficient	Std.Error	t	P>t	95% Confidence Interval	
24-29	-.024	.013	-1.83	0.068	-.0492898	.0017452
30-35	-.056	.025	-2.29	<b>0.022</b>	-.1048615	-.0080870
36-41	-.007	.033	-0.23	0.819	-.0713771	.0564744
42-47	-.020	.043	-0.46	0.645	-.1046970	.0649073
<u>Marital</u>						
<u>(Single)</u>						
Married	.018	.007	2.56	<b>0.011</b>	.004	.032

### 2.4. Factor Analysis of SWB and PWB

Table 6 shows the results from principle component extraction with varimax rotation. Only SA overlaps over 0.40.

**Table 6.** Rotated Factor Loadings (Pattern Matrix)

Measure	SWB	PWB
SWLS1	0.8009	0.2003
SWLS2	0.8452	0.1192
SWLS3	0.7947	0.2674
SWLS4	0.8007	0.2336
SWLS5	0.7442	-0.0516
AU	0.1350	0.6563
EM	0.2673	0.7287
PG	0.1020	0.7623
PR	0.2025	0.7810
PL	0.0410	0.7937
SA	0.4210	0.6866

## 2.5. SEM Model 4

Figure 2 shows that covariance between PWB and SWB is 0.53. Self acceptance shows the strongest effect over PWB whereas “I am satisfied with my life” component shows the strongest effect over SWB.

### 2.5.1. Fit Statistics of Model 4

Fit statistics for SEM of PWB and SWB are as follows.

Stata 14: estat gof, stats (chi2 rmsea ic indices residuals) noddescribe.

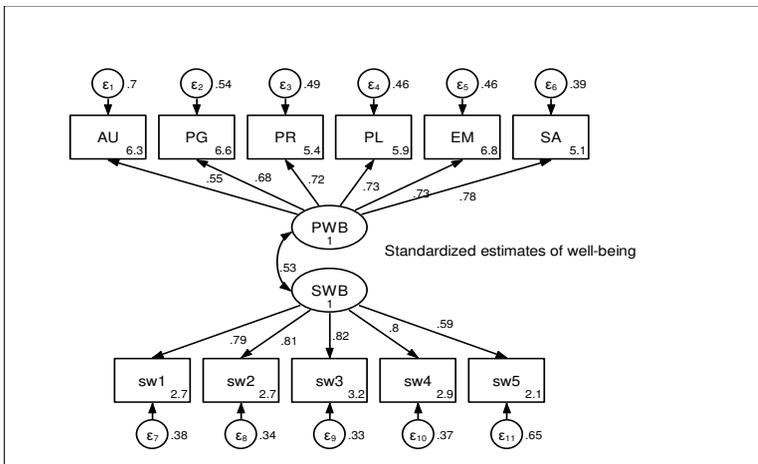
Likelihood ratio:  $\chi^2(43)=340.15$  and  $p < .001$

Population error: RMSEA 0.08 cutoff value

Baseline comparison: CFI 0.94 > 0.90 satisfactory fit,

TLI 0.93 > 0.90 satisfactory fit.

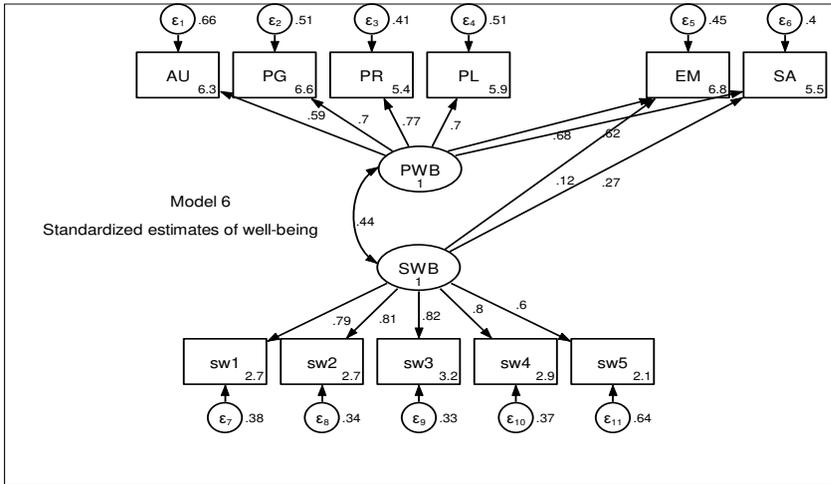
Size of residuals: SRMR (RMS theta) 0.06 < 0.08, CD 0.98.



**Figure 2.** Standardized Estimates of Well-Being – Model 4

## 2.6. SEM Model 6

Figure 3 shows standardized estimates of well-being components with latent PWB and SWB.



**Figure 3.** Standardized Estimates of Well-Being - Model 6

### 2.6.1. Fit Statistics of Model 6

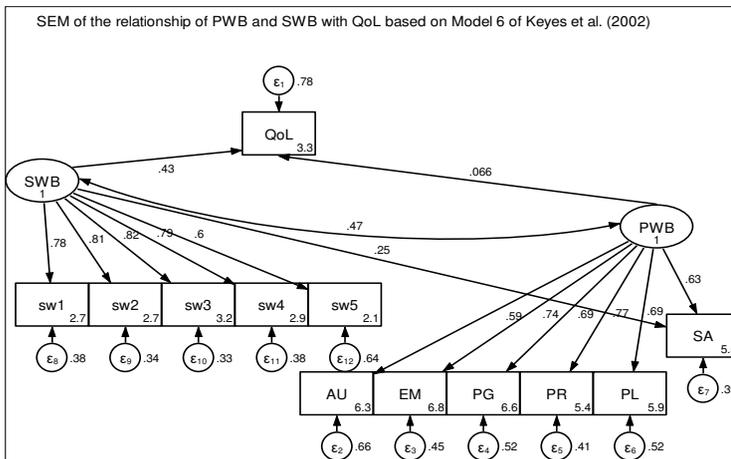
Fit statistics for SEM of PWB and SWB with QoL is estimated using Stata. estat gof, stats (chi2 rmsea indices residuals) nodescribe.

Likelihood ratio:  $\chi^2(41)=257.6$ ,  $p < 0.001$  (We can reject at the 5% level that the model fits as well as the saturated model)

Population error: RMSEA (root mean squared error of approximation)  $0.07 < 0.08$  good fit

Baseline comparison: CFI (Comparative fit index)  $0.96 > 0.95$  good fit, TLI (Tucker-Lewis Index)  $0.94 > 0.90$  satisfactory fit.

Size of residuals: SRMR(Standardized Root Mean Square Residual)  $0.04 < 0.08$  good fit, CD (Coefficient of determination) 0.98 (close to 1 is better). Figure 4 shows path ways of SEM of PWB and SWB with QoL based on Model 6.



**Figure 4.** Standardized Estimates of Well-Being - Model 6

### 2.6.2. Beta-weights of SWB and PWB

Table 7 shows regression coefficients (standardized beta-weights) of Model 6. PWB and SWB are latent.

**Table 7.** Rotated Factor Loadings (Pattern Matrix)

Measure	PWB	SWB
QoL	.0663235	.4302338
AU	.5858807	
EM	.7437931	
PG	.6908204	
PR	.7685939	
PL	.690336	
SA	.6336314	
SWLS1		.7848454
SWLS2		.8119896
SWLS3		.8204499
SWLS4		.789763
SWLS5		.5970159

## 2.7. Mediator Effect

As a mediator variable, SWB must satisfy three conditions (Ring et al. 2007) as follows: Regressing SWB onto PWB(IV), regressing QoL (DV) onto SWB, and regressing QoL(DV) onto PWB(IV). It must be demonstrated that there is an association between each pair. The results indicated an association between PWB and SWB ( $b=0.05$ ,  $p<.001$ ), between PWB and QoL ( $b=0.38$ ,  $p<.001$ ) and between SWB and QoL ( $b=0.07$ ,  $p<.001$ ). Therefore, SWB mediates the relationship of PWB with QoL. However, this mediation is not a perfect mediation.

Correlations between variables in Table 3 show that SWB has the strongest correlation with QoL. However, according to hierarchical regression results, the fact that SWB significantly predicts QoL above and beyond PWB provides sufficient evidence that SWB may be a mediating variable between PWB and QoL.

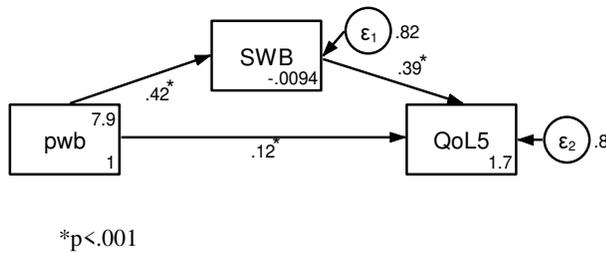
To investigate the mediating role of SWB, the significance of the indirect effect of SWB was tested using structural equation modeling (SEM). Models are calculated with maximum likelihood (ML) method using Stata 14. The results show that the indirect effect of PWB is significant through SWB. That is, SWB significantly mediated the effect of PWB ( $z = 9.38$ ,  $p <.001$ ) over QoL.

Hierarchical regression analyzes were conducted to examine whether this mediation was partial or full. In each regression, PWB factor is entered in the second block after SWB is entered in the first block of the regression equation. The second model showed that PWB was still

significant ( $p < .001$ ) in predicting QoL, which indicates that SWB partially mediates the relationship between PWB and QoL.

### 2.7.1. Mediating Model

Figure 4 shows the mediating model of SWB with standardized coefficients and significance of the relationships. The results of hierarchical regression analysis indicates that indirect effect of PWB based on unstandardized estimation is  $3.6(0.075) = 0.27$ , which is significant. Unstandardized direct effect of PWB is 0.19. The total effect of PWB is  $0.27 + 0.19 = 0.46$



**Figure 4.** The Mediating Model

## CONCLUSION

Model estimation results confirmed the hypothesis as expected. “SWB is a mediator of PWB and QoL” was confirmed using regression models. Although association is highly significant, the effects of PWB over SWB and that of SWB over QoL were substantially higher than that of PWB over QoL.

Low correlation between socio-demographic variables and well-being is recognized in well-being research and was one more time confirmed by MANOVA. Positive associations between PWB, SWB and QoL

was shown by estimating pairwise correlations and regression coefficients. Self acceptance was the strongest PWB factor to explain SWB which was shown by SEM of Model 6. QoL is stronger in explaining SWB than explaining PWB was confirmed by the SEM results, which supports Camfield and Skevington (2008) deducing that LS is embedded within overall QoL.

An important conclusion for health policy makers is that better PWB will improve SWB and higher SWB will enhance higher QoL. For policy implementation, we recommend that psychologist support be provided to residents similar to health support by family doctors. Psychologist support + health support = higher QoL. Implications of the study for possible implementations can be used by the authorities to enhance QoL.

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**CHAPTER 4**  
**EXAMINING THE RELATIONSHIP BETWEEN  
COMPUTATIONAL THINKING SKILLS AND  
METACOGNITIVE THINKING SKILLS\*<sup>1</sup>**

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## **INTRODUCTION**

It is important for individuals to possess a 21<sup>st</sup> century skill set to be able to deal with the current age, to be cooperative with others, to become enterprising individuals who are open to communication, to be able to fit in with employers' requirements for quality manpower and for self-realization as an individual. The first of these 21st century skills has been termed cognitive thinking, which includes problem solving and both critical and systematic thinking. The second of the 21st century skills concerns interpersonal relations, and this skill set includes communication, social skills, team work, cultural sensitivity and an ability to deal with differences. The third group of 21<sup>st</sup> century skills, the core competencies, include self-management, time management, self-development, self-control and adaptability skills (Yılmaz, 2016).

Another skill, which can be considered within the scope of cognitive skills is Computational Thinking (CT). Wing (2006) stated that CT was an important skill and that it would be listed among the basic skills to be used by all individuals in the 21st century. It has been said that CT is a “must have” skill in order to live and work in today's challenging world (Venkatesh et al., 2003). CT, which can be considered within the scope of systematic thinking, can be regarded as an essential skill, not only for those professionally engaged in computers but for all individuals (Korkmaz et al., 2015). According to Hoppe and Werneburg (2019) the concept of computational thinking

is a multidisciplinary field with contributions from computer science, cognitive science and education.

The International Society for Technology in Education (ISTE) also sees CT as a type of problem solving approach (ISTE2015). It is an approach that combines technology and thinking and strengthens both. CT tries to enhance the capacity for problem solving by harnessing the inherent human abilities of creativity and critical thinking. Oluk et al., (2017) examined the relationship between computational thinking skills (CTS) and problem-solving skills of students (group of 31 experiment and 31 control) and self-perception of logical mathematical intelligence. They found a positive significant correlation between CTS ability levels and levels of logical mathematical intelligence and problem-solving skills. Román-González et al., (2017) investigated the relationship between the level of CTS and problem-solving ability with 1,251 Spanish students from 5th to 10th grade. They also concluded that the two variables had a significant relationship. Saritepeci (2017) examined CTS with regard to various variables including gender, access to technology, daily duration of technology use and level of problem solving. This author found that there was a positive relation between problem solving skill and CTS and that problem-solving skill was a substantial predictor of CTS.

Today, the necessity of having individuals with these skills is obvious, not just because of the rapidly increasing technological nature of society and our interactions within it. As well as having all

these features, a further attribute is metacognitive skill. This skill is present in individuals who are capable of all-round thinking, able to reflect on learning experiences, who can manage themselves and are thus aware of their own abilities and have self-confidence. Metacognition is self-management of ones' own cognitive processes. In other words, an individual's awareness about what he/she knows and management of self-learning by determining how to use the knowledge when encountering a problem (Akin & Çeçen, 2014). Sub-skills which are considered to be Metacognition Thinking Skills (MTS) are critical thinking, creative thinking, decision making and problem-solving skills (Kaya & Dönmez, 2008). Havegnaet *al.* (2013) reported that metacognitive skills are an integral part of the process when learning computer programming; understanding the problem, formulating a possible solution, planning the programming steps requiring detailed computer thinking skills, coding the program in a computer language and testing the program to see if it solves the problem.

Tuncer and Kaysi (2013) studied the differences in MTS between student teachers depending on the faculties they had trained in and personal computer ownership. The study concluded that there were no significant difference in MTS with regard to faculties they studied in and computer ownership. Tuncer and Bahadır (2017) examined the attitudes of prospective teachers towards their perception of MTS and their success orientation taking a number of variables into account, including gender and found that there was no significant difference in the “decision making skill” sub-factor for female prospective

teachers. Tuncer et al. (2016), reported similar findings, after analyzing metacognitive skills of vocational school students. Their subjects also showed no significant difference with respect to gender for sub-factors of MTS with the exception of Reflective Thinking Skill for Problem Solving where a significant difference was found in favor of female students. Tuncer and Yılmaz (2017) examined the relation between metacognitive thinking skills and self-efficacy for scientific research and found that there was a significant relation between the two fields.

A comparison of the sub-skills included in both CTS and MTS reveals that many are complementary. Acquisition of both sets of skills is acknowledged as being important to be a successful and fully functional individual in 21<sup>st</sup> century society. The education system plays a major role in ensuring that individuals acquire these skills. Havegna *et al.* (2013) reported that teaching metacognitive and problem-solving skills will also facilitate student self-learning. Coutinho (2007) found that students with good metacognition have mastery goals and learn better than students with performance goals. In a study of students on a programming course Rum and İsmail (2016), showed that metacognition positively affected students' success and that their understanding of their own knowledge affects the way they plan, strategize, monitor, correct mistakes and evaluate their learning. Ormrod (2016) reported that individuals with advanced cognitive skills know how to learn better, make a successful plan, use effective learning strategies, know whether to learn the information successfully and better recall the information learned. Given the

importance for today's students of acquiring and using CTS and MTS it is important that education programs applied in schools should be arranged incorporate these skills in the classroom.

However, to the best of our knowledge there is no published research investigating the relation between CTS and MTS. It is necessary to find answers to the questions: "to what extent do university students have CTS and MTS?"; "how can CTS and MTS skill sets be improved?"; and "does the degree of CTS and MTS ability differ from subject to subject and from higher grade students to lower grade students?". Then it will be possible to investigate what can be done to modify future education programs to improve teaching of, and student acquisition of CTS and MTS. Therefore, investigating whether there is a relationship between CTS and MTS, and if such exists, how they should be employed in the learning-teaching processes is important. The aim of this study, using data from the first semester basic computer knowledge and the second semester problem solving and algorithm development courses, was to investigate to what extent students studying in different departments of Kocaeli University have these skills and to reveal if there is a significant relationship between these two skills.

### **Objective of the Research**

The objective of this research was to determine the relationship between CTS and MTS in undergraduate university students. Sub-objectives determined to achieve this objective are as follows:

1. What is the level of CTS and MTS of the university students?
2. Is there a significant relation between CTS and MTS of the students?
3. Are there significant differences in CTS and MTS ability between students from different departments, with different years (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year students) and between those who have and those who do not have computer programming experience?

## **1. METHOD**

### **Research Model and Participants**

A relational survey method was used in the research. The study population was recruited from a public University in Turkey. Departments willing for their students to participate in the study included Nursing, Social Services, Science teacher training, Computer Education and Instructional Technology and Turkish language and literature. Students from these departments were selected because they receive training in basic computer knowledge for 14 weeks in the first semester and a problem solving and algorithm development course (Scratch) for a further 14 weeks in the second semester. The total number of undergraduates initially recruited was 225. However, due to incomplete data sets, 244 questionnaires were included in the analysis. The students in these departments were divided into two groups for the purposes of the study, termed “numerical” (computer education and instructional

technology, nursing, midwifery, science teacher training) and “verbal” (social services, Turkish language and literature) students. This research is classified as quantitative and verbal sections in sections according to their score in the university entrance exam in Turkey. A simple sampling method was used. Demographic data relating to the students are given in Table 1.

**Table 1.** Demographic Characteristics of the Students Who Participated in the Study

<b>Department</b>	<b>n</b>	<b>%</b>
Numerical	180	73.8
Verbal	64	26.2
<b>Years of study</b>	<b>n</b>	<b>%</b>
1	124	50.8
2	53	21.7
3	36	14.8
4	31	12.7
<b>Programming</b>	<b>n</b>	<b>%</b>
I have written a program	54	22.1
I have not written a program	190	77.9

### **Data Collection Tools**

The first data collection tool used in the research was 5-point Likert-type CTS scale consisting of 29 items, developed by Korkmaz, Çakır and Özden (2015). Each of the items, with the exception of two in reverse order, was scaled from; Almost Always (5), Often (4), From time to time (3), Rarely (2), Hardly Ever (1). The scale had a 5-factor structure including creativity, algorithmic thinking, co-operativity, critical thinking and problem solving. Cronbach Alpha value for the

entire scale was 0.809 implying good scale reliability. Since the number of items in each factor varied, factor scores were standardized to 100. Scores obtained by the students for each factor were divided into considered low (20-46), intermediate (47-73) and high ( $\geq 74$ ), respectively, as previously described (Korkmaz et al., 2015).

The second data collection tool was an MTS scale, developed by Tuncer and Kaysi (2013). The scale consisted of 18 items. The scale had four dimensions (thinking skill competences, reflective thinking skills for problem solving, decision making skill competences and alternative evaluation skill competences). Cronbach Alpha value for the entire scale was calculated as 0.881, again suggesting good reliability and internal consistency. The items on the MTS scale were scored as “Fully Agree (5); Agree (4); Indecisive (3); Disagree (2); Fully Disagree (1)”. Arithmetic average intervals taken as the baseline for evaluation of findings related to this scale were; “1.00-1.80= totally disagree”, “1.81-2.60= disagree”, “2.61-3.40= undecided”, “3.41- 4.20= agree” and “4.21-5.0= totally agree”.

### **Data Analysis**

Data were analyzed using Statistical Package for the Social Sciences version 18.0 (IBM Inc., Chicago, Ill., USA). For statistical analysis of sub-problems, frequency and percentage values, arithmetic average and standard deviation were used. The t-test and one-way variance analysis (ANOVA) were utilized for comparing scores obtained with CTS and MTS scale. Level of significance was accepted to be 0.001

and 0.05. Pearson Correlation test was used to determine the relationship between CTS and MTS.

## Results

Opinions of university students on CTS and MTS were compared with respect to a number of variables and findings were summarized.

### 2. PERCEPTION LEVELS OF THE STUDENTS CONCERNING CTS AND MTS

Arithmetic averages were looked into to determine the perception levels of the students concerning CTS and MTS. Analysis results are given in Table 2.

**Table 2.** Perception Levels Of All Students Concerning CTS and MTS (n=244)

CTS	$\bar{x}$	ss	MTS	$\bar{x}$	ss
Creativity	83.55	4.34	Thinking Skills	3.91	3.41
Algorithmic	65.83	6.27	Reflective Thinking Skill for	3.68	3.56
Thinking			Problem Solving		
Cooperativeness	74.2	4.10	Decision-making Skill	4.01	3.02
Critical	72.0	3.95	Alternative thinking skill	3.84	2.79
Thinking					
Problem	70.06	5.49	<i>Total of the scale</i>	3.85	10.6
Solving					1
<i>Total of the scale</i>	73.82	14.66			

The results in Table 2 show that among CT sub-factors for creativity and cooperativeness factors were high, whereas algorithmic

thinking, critical thinking and problem solving factors were at a medium level. The arithmetic average of total scores on the CTS scale was also at the medium level. Analysis of the sub-factors of MTS scale show that students' perceptions of the four sub-factors and the entire MTS scale were at the level of "agree". It appears that awareness of the participants about MTS was high.

### **3. FINDINGS REGARDING CTS AND MTS STRATIFIED BY DEPARTMENT**

Findings regarding CTS and MTS when divided by the department they were studying in are summarized in Table 3.

In Table 3, according to results of t-test performed to compare differences in CTS of the students with regard to their departments, there is a significant difference in "algorithmic thinking" [ $t(244) = 5.988, p < 0.001$ ] and "cooperativeness" [ $t(244) = 2.117, p < 0.05$ ] sub-factors. There is also a significant difference in total scores of CTS [ $t(244) = 3.807, p < 0.001$ ]. The arithmetic average score of students studying in numeric departments was higher compared to that of students studying in verbal departments.

However, there was no significant difference found between students in numeric compared to verbal departments in terms of the sub-factors or overall scores for the MTS scale [ $t(244) = 0.426; p > 0.05$ ].

**Table 3.** Comparison of Students By Department Regarding Attitudes Both Overall And To The Sub-Factors Of The CTS and MTS Scales

Scales	Sub-Dimensions	Department	n	$\bar{x}$	ss	t	p	
CTS	Creativity	Numeric	180	83.52	4.4	0.066	.947	
		Verbal	64	83.62	4.2			
	Algorithmic Thinking	Numeric	180	70.3	5.53	5.988	.001	
		Verbal	64	53.26	6.7			
	Cooperativeness	Numeric	180	75.85	4.0	2.117	.035	
		Verbal	64	69.6	4.28			
	Critical Thinking	Numeric	180	72.6	3.93	1.003	.317	
		Verbal	64	70.28	4.01			
	Problem Solving	Numeric	180	71.26	5.42	1.745	.082	
		Verbal	64	66.66	5.58			
	<b>CTS (Total)</b>	Numeric	180	75.32	14.98	3.807	.001	
		Verbal	64	69.6	14.89			
	MTS	Thinking Skills	Numeric	180	3.9	3.38	0.426	.67
			Verbal	64	3.94	3.5		
Reflective Thinking Skill for Problem S.		Numeric	180	3.66	3.51	0.846	.399	
		Verbal	64	3.75	3.7			
Decision-making Skill		Numeric	180	3.98	2.99	1.06	.29	
		Verbal	64	4.1	3.08			
Alternative thinking skill		Numeric	180	3.84	2.75	0.199	.843	
		Verbal	64	3.86	2.91			
<b>MTS (Total)</b>		Numeric	180	3.84	10.47			
		Verbal	64	3.9	11.04			

## **Comparison of attitudes to CTS and MTS stratified by student year**

ANOVA was used to compare attitudes to CTS and MTS of students stratified by the number of years each student had studied (year) and the results are summarized in Table 4. There were significant differences for the creativity [ $F(3-240)=4.941, p<0.005$ ], critical thinking [ $F(3-240)=4.410, p<0.005$ ] and the problem solving [ $F(3-240)=2.865, p<0.05$ ] sub-dimensions of the CTS scale and for total CTS [ $F(3-240)=3.484, p<0.01$ ] when participants were stratified by year. As per averages, there is a difference between 3<sup>rd</sup> and 1<sup>st</sup> and 4<sup>th</sup> and 1<sup>st</sup> year students for creativity sub-dimension of CTS scale. The averages of 3<sup>rd</sup> and 4<sup>th</sup> years were higher compared to 1<sup>st</sup> grade. There is significant difference in critical thinking sub-dimension between first year students and each of the subsequent years. As the number of years of university study increased averages increased for both creativity and critical thinking dimensions. There is also significant difference in problem solving sub-factor between averages between the 1<sup>st</sup> and 3<sup>rd</sup>, 2<sup>nd</sup> and 4<sup>th</sup> and 3<sup>rd</sup> and 4<sup>th</sup> years so that problem solving skills generally improve as the number of academic years increased. Similar results were obtained for total CTS scores. As per year averages, there are significant differences between the 1<sup>st</sup> and 2<sup>nd</sup>, 1<sup>st</sup> and 4<sup>th</sup>, 2<sup>nd</sup> and 4<sup>th</sup> and 3<sup>rd</sup> and 4<sup>th</sup> years. Thus a general increase in attitudes to CTS occurs as students accumulate years of teaching and study.

An examination of MTS with respect to student year revealed only one significant difference in the thinking skills sub-factor [ $F(3-240) = 4.068, p < 0.01$ ]. There were significant differences in average scores between the 1<sup>st</sup> and 4<sup>th</sup> and 2<sup>nd</sup> and 4<sup>th</sup> years. It is possible to assert that as the grade level increases perception of thinking skills of the students improve. There is no significant difference in the other MTS sub-factors nor in the total scores between years.

**Table 4.** Differences in CTS Of Students with Regard to Years of University Study

	Year	n	$\bar{x}$	ss	F	p	Difference between years
Creativity	1	124	81.30	4.28	4.941	.002	3-1;4-1
	2	53	83.95	4.76			
	3	36	88.17	3.55			
	4	31	86.45	3.85			
Algorithmic Thinking	1	124	64.43	6.11	2.281	.080	-
	2	53	64.70	7.11			
	3	36	66.53	6.04			
	4	31	74.93	5.10			
Cooperativeness	1	124	75.45	3.78	1.936	.124	-
	2	53	69.30	4.45			
	3	36	76.60	4.41			
	4	31	79.50	4.20			
Critical Thinking	1	124	68.48	0.34	4.410	.005	2-1;3-1;4-1
	2	53	74.68	0.55			
	3	36	76.00	0.66			
	4	31	76.76	0.69			
Problem Solving	1	124	71.13	0.39	2.865	.037	1-3; 4-2;4-3
	2	53	67.76	0.95			
	3	36	73.33	0.98			
	4	31	76.33	1.02			
CTS (Total)	1	124	72.70	1.38	3.484	.017	2-1;4-1;4-2;4-3
	2	53	73.02	2.21			
	3	36	74.11	2.52			
	4	31	79.35	2.11			

**Table 5.** Differences in MTS With Regard to Years of University Study

	Year	n	$\bar{x}$	ss	F	p	Difference between Groups
Thinking Skills	1	124	3.80	3.21			
	2	53	3.96	3.59			
	3	36	3.92	3.84	4.068	.008	4-1; 4-2
	4	31	4.26	2.78			
Reflective Thinking Skill for Problem S.	1	124	3.62	3.32			
	2	53	3.76	4.00			
	3	36	3.62	3.40	1.377	.250	-
	4	31	3.87	3.80			
Decision-making Skill	1	124	3.99	2.92			
	2	53	4.12	3.40			
	3	36	3.86	3.22	1.084	.356	-
	4	31	4.12	2.39			
Alternative thinking skill	1	124	3.77	2.44			
	2	53	3.88	3.38			
	3	36	3.84	2.96	1.788	.150	-
	4	31	4.08	2.65			
MTS (Total)	1	124	3.78	9.91			
	2	53	3.92	12.53			
	3	36	3.81	10.08	2.473	.062	-
	4	31	4.08	9.59			

#### **4. STUDENTS' ATTITUDES TO CTS AND MTS WITH REGARD TO PREVIOUS PROGRAM WRITING EXPERIENCE**

Findings concerning the attitudes of the students to CTS and MTS stratified by previous programming experience are given in Table 6.

In terms of attitudes to CTS students with previous programming experience showed significantly higher scores for creativity [t (244) =2.814,  $p<0.005$ ], algorithmic thinking [t (244) =3.059,  $p<0.005$ ], critical thinking [t (244) =3.002,  $p<0.005$ ] and for total CTS [t (244) =3.641,  $p<0.001$ ]. Using analysis of differences, the arithmetic average of the students who had previous programming experience was higher than that of the students without programming experience.

On examination of the sub-factors related to the MTS scale and total scores, results similar to those obtained with the CTS scale were obtained. Among the sub-factors of the MTS scale, significant differences were observed in thinking skills [t (244) = 2.737,  $p<0.01$ ], decision making skills [t (244) =2.306,  $p<0.05$ ] and alternative thinking skills [t (244) =2.902,  $p<0.01$ ] scores. Similarly, there was a difference in MTS [t (244) = 2,864,  $p<0.005$ ] total scores with those with previous programming skills scoring significantly higher. As regards differences in sub-factors with regard to averages and MTS scale total score, it was seen that the arithmetic average of the students who stated that they had previous programming experience were higher than that of students with no previous programming experience.

**Table 6.** T-Test Results for CTS And MTS According to Previous Program Writing Experience

	<b>Computer program</b>	<b>n</b>	$\bar{x}$	<b>ss</b>	<b>t</b>	<b>p</b>	
CTS	Creativity	I wrote program	54	87.17	4.32		
		I did not write any programs	190	82.52	4.27	2.814	.005
	Algorithmic Thinking	I wrote program	54	73.39	5.94		
		I did not write any programs	190	63.70	6.22	3.059	.002
	Cooperativeness	I wrote program	54	77.40	4.15		
		I did not write any programs	190	73.34	4.08	1.286	.200
	Critical Thinking	I wrote program	54	77.62	3.75		
		I did not write any programs	190	70.42	3.92	3.002	.003
	Problem Solving	I wrote program	54	72.77	6.48		
		I did not write any programs	190	69.31	5.17	1.227	.221
	<b>CTS (Total)</b>	I wrote program	54	78.35	15.04		
		I did not write any programs	190	72.54	14.98	3.641	.001
	Thinking Skills	I wrote program	54	4.13	3.14		
		I did not write any programs	190	3.85	3.42	2.737	.007
	Reflective Thinking Skill for Problem S.	I wrote program	54	3.82	3.64		
		I did not write any programs	190	3.64	3.52	1.649	.100
	Decision-making Skill	I wrote program	54	4.22	2.57		
		I did not write any programs	190	3.96	3.10	2.306	.022
Alternative thinking skill	I wrote program	54	4.08	2.89			
	I did not write any programs	190	3.78	2.70	2.902	.004	
<b>MTS (Total)</b>	I wrote program	54	4.05	10.13			
	I did not write any programs	190	3.80	10.55	2,864	.005	

## 5. RELATION BETWEEN STUDENTS' PERCEPTIONS OF CTS AND MTS

Pearson Correlation analysis was performed in order to determine if there was a relationship between students' perceptions of CTS and MTS. The results are shown in Table 7.

**Table 7.** Findings on Whether There Is a Significant Relationship Between CTS and MTS

CTS	MTS	Thinking Skills	Reflective Thinking Skill for Problem Solving	Decision Making Skill	Alternative Thinking Skill	MTS(Total)
		r	r	r	r	r
Creativity	r	.535**	.501**	.454**	.641**	.638**
	p	.000	.000	.000	.000	.000
Algorithmic Thinking	r	.308**	.291**	.217**	.367**	.355**
	p	.000	.000	.001	.000	.000
Cooperativeness	r	.148*	.246**	.284**	.262**	.280**
	p	.021	.000	.000	.000	.000
Critical Thinking	r	.492**	.470**	.372**	.535**	.563**
	p	.000	.000	.000	.000	.000
Problem Solving	r	.096	-.068	-.025	.024	.007
	p	.133	.289	.699	.705	.908
CTS (Total)	r	.478**	.423**	.380**	.548**	.547**
	p	.000	.000	.000	.000	.000

\*\* 0.001 level; \* 0.05 level

Interpretation of the strength of the correlation coefficient was made as per the work of Büyüköztürk; values between 0.70-1.00 were considered to be high whereas those between 0.70-0.30 were

considered medium correlation and those between 0.30-0.00 indicated low correlation (Büyüköztürk, 2008, p.32).

The correlation between total CTS score and total MTS score was statistically significant ( $r=0.547$ ,  $p<0.001$ ). Thus there was an intermediate significant relation between the two scales. In terms of the sub-dimensions, with the exception of the problem solving sub-factor on the CTS scale, correlations between the other factors were mostly positive. The strongest correlations were found between alternative thinking skill and creativity ( $r=0.641$ ); total MTS and creativity ( $r=0.638$ ); total MTS and critical thinking ( $r=0.563$ ); and alternative thinking skill and total CTS ( $r=0.548$ ). In general there was a medium strength correlation between the sub-factors of the CTS and MTS scales. The one notable exception was the lack of correlation between the problem solving sub-factor of the CTS scale and all the sub-factors of the MTS scale.

## **CONCLUSION AND DISCUSSION**

In this study, the opinions of university students on CTS and MTS were compared using specifically designed questionnaires. Variables included the subjects being studied, which were divided into “numerical” and “verbal” groups, the year of study and whether the students had any previous experience of writing computer programs. The relationship, as a correlation, between attitudes to CTS and MTS were also investigated.

Arithmetic averages of total scores on the CTS scale were found to be at a medium level. Results similar to these have been reported previously (Korkmaz et al., 2015). These authors reported that the CTS of secondary school students was quite high, whereas the lowest scoring factors for secondary school students were problem solving and algorithmic thinking. Korkmaz et al., (2015) found similar results in another study with university students. The skills of the individual students with the lowest averages were in algorithmic thinking and problem solving whilst the skill with the highest average was cooperativeness. Critical thinking, one of the sub-factors of CTS scale, was found to be of a medium level in this study. In the studies of Korkmaz and Yeşil (2009) and Özdemir (2005) the aim was to investigate students' perceptions concerning critical thinking skills. Levels of and tendencies to critical thinking for students attending a faculty of education were found to be at medium level in general, as we found in this research.

On examination of the MTS scale, it was found that students' perceptions of the four sub-factors and of the entire MTS scale tended to be "agree" and thus awareness of MTS of the participants was high. Similar findings were also found in the study of Adıgüzel and Orhan (2016).

A significant difference was found between students from different departments in terms of the CTS sub-factors algorithmic thinking and cooperativeness and for the total. The arithmetic averages of students studying in numeric departments were higher than those of the

students studying in verbal departments. These results are in agreement with those of Korkmaz et al., (2015) with university students who reported that students from the Technology Faculty and the Institute showed significantly better CTS scores than those of students from other departments.

We found no difference in terms of the arithmetic averages for the MTS sub-factors and overall scores when comparing students from numerical and verbal departments. Similarly, Dogan (2016) stated that there were no significant differences in student opinions with respect to department. This is in contrast to some previous reports. Tuncer and Bahadır (2017) reported significant differences in terms of the problem-solving skill sub-factor between departments. In an earlier study Tuncer and Kaysi (2015) found a significant difference in MTS scores comparing departments and Tuncer et al. (2016) also reported significant differences between students in vocational school in different departments when comparing their opinions on MTS a significant difference was observed in the sub-factor reflective thinking skills for problem solving and in terms of the entire scale.

When comparing students in different years of university study in terms of CTS, significant differences were found between creativity, critical thinking and problem solving sub-factors of the scale and total CTS scale scores. It appears that studying at university level improves students' appreciation of the importance of CTS. The results reported by Korkmaz et al., (2015) also with university students, were

contradictory to our findings Further research is needed because of this inconsistency.

On examination of attitudes to MTS stratified by year of study, the only significant difference was found in the sub-factor of thinking skills where differences between the arithmetic averages of first and fourth and third and fourth year students was seen. This is in agreement with the findings of Tuncer and Kaysi who reported that the thinking skills of students were enhanced as the number of years of study increased (Tuncer & Kaysi, 2013). We found no significant difference in the other sub-factors and in the total scores for MTS. There are similar reports in the literature. In the study of Tuncer and Bahadır (2017), the relation between MTS and successful orientation of prospective teachers was investigated. No significant difference was found with regard to year and MTS of the students who participated in the study. In the studies of Tunca and Şahin (2014) and Baykara (2011), it was found that metacognitive learning strategies of prospective teachers did not differ significantly by year of study. However, some studies contrast with these and our findings. Demir and Özmen, (2011), Karasakaloğlu et al. (2012), and Koç and Karabağ (2013), found significant difference with regard to year of study and MTS. In the study by Tuncer et al., (2016), a statistically significant difference was found between the opinions of students in vocational school concerning the MTS sub-factor “decision making skills” in favor of first year. This contrasts with the study of Karakelle (2012) who reported that meta-cognitive and mental development increased as age increased. Similarly Baysal et al. (2013), determined that there was a significant difference in favor of

fourth grade students with regard to metacognitive awareness. These conflicting findings show that there is a need for more in-depth research to be conducted on the subject, perhaps utilizing different research methods.

When comparing students who did and did not have previous programming experience in terms of attitudes to CTS significant differences were found. The arithmetic averages of the students who had programmed before were higher than those of students without previous experience. Thus it appears that students who had received training in algorithms and programming had a more positive attitude to CTS than those students who had not received this education. Similar findings have been reported previously; in the studies conducted by Brennan & Resnick (2012); Oluk et al., (2017).

The use of metacognitive skills plays an important role in solving computer programming problems (Parham, Gugerty & Stevenson, 2010). Shaft (1995) studied the use of metacognitive skills in program comprehension where professionals used the programming language COBOL. His research indicated that the use of metacognitive skills influences how well programmers understand a program. In analysis of the relations between sub-dimensions it was observed that, except for the problem solving sub-factor on the CTS scale, positive relations between the other factors in both scales were predominant. Crowe, Dirks and Wenderoth (2008) stated that it is necessary to develop metacognitive strategies in programming and that if novice programmers are taught metacognitive awareness, they will be able to

elaborate the strategy for new situations more easily in order to become successful learners.

These results indicate that there is a statistically significant moderate association between total CTS scale scores and MTS scale scores. It is possible to indicate that applicability of the skills in the two scales as strategies at different educational levels and in different lessons will be mutually beneficial for the development of CTS and MTS skills in students. To the best of our knowledge there are no earlier studies in which the two scales have been compared in the same subjects. Authors suggest that combined research into both CTS and MTS may be warranted in the future. Improvement of both sets of skills may be achieved by arranging activities for all classes at different educational levels with the aim of developing both CTS and MTS. Teachers, who play an important role in furnishing students with these skills may be helped to integrate these skills into lessons by organizing courses for them on these skills and by making these skills an integral part of teacher training.

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**CHAPTER 5**  
**AUTONOMY VERSUS STANDARDIZATION FOR**  
**UNIVERSITY ACADEMIC PROGRAMS**

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## **INTRODUCTION**

21<sup>st</sup> Century is called as Knowledge Era. Production and use of knowledge is the only way to ensure sustainable economy and wellness of a nation in today's challenging world.

Universities having research activities are the crucial element of production of knowledge. Universities with economic means, self-managing, and free from the pressure of state authorities are the best places to produce knowledge in support of economy and society.

Nowadays, the understanding of the role and functions of universities shifted towards what Enders et al. (2013) termed "a distinctive social institution which deserves special status in terms autonomy and academic freedom based on a social compact that evolved between higher education, the state and society". They further argue, that "the belief that the university requires autonomy from substantial political or corporate influence to function optimally was in turn linked to the role of the state as the guardian of the university in substantive matters, guaranteed state funding, at least in continental Europe, strong professional self-governance and protection of academic freedom" (Veiga et al, 2015).

In the European approach of higher education, the modern university was strongly connected to the emergence of the nation state. The relation between the two was characterized by a strong state and autonomous academics. In other words, the role of the state was twofold. The first was to regulate, fund and control HEIs, and the second was to safeguard the autonomy of universities as social

entities, and the freedoms of academics to which substantial powers were delegated. As a consequence, universities were able to develop constitutive and normative principals without external interference (Olsen, 2007; in Enders et al., 2013).

At that time, the academics were seen as the main actors instead of the organization itself (de Boer et al., 2007). But this changed during the reformation process.

Until the last quarter of the 20th century, many European universities had been primarily governed by academics, and the state acted as a buffer protecting higher education institutions and academics from the interference of external interests (Neave, 2012) and held ruling power over non-academic matters. From a normative stance, less than half a century ago, Moodie and Eustace (1997) still considered that in universities, ‘the supreme authority . . . must . . . continue to rest with the academics. Burton Clark (1983) argued that the adoption of models based on the metaphor of organized anarchy would be more appropriate for allowing individuals and research teams to liberate their inventive capacity and to produce innovative ideas.

Over the last decades, higher education reforms were grounded in the shift from state control to supervisory models and to quasi-market regulation inducing corporate-like models of governance (Meek, 2003). This shift relied on increased institutional autonomy, based on the assumption that the more autonomous institutions were, the better they would respond to changes in their organizational environment (Amaral and Magalhães, 2001; Magalhães et al., 2013), and the better

they would perform (Aghion et al., 2009; Ritzen, 2011). The increasing use of markets as instruments for regulating public domains was an additional argument for enhancing institutional autonomy as a condition to compete in a market (Dill et al., 2004; De Boer, Enders and Leisyte, 2007).

However, ‘more muscular executive/managerial prerogative within universities, in response to increased external government regulation . . . ironically reduces the relative autonomy of universities (including senior managements) in relation to government’ (Blackmore, Brennan and governance reforms introduced private sector management tools, emphasizing market-based competition, efficiency, performance and value for money, concentrating decision power in the central administration, while weakening the representation of academics (Ferlie, Musselin and Andresani, 2009). The configuration of universities as corporations (Marginson and Considine, 2000) enhanced managerial modes of coordination (Blackmore et al., 2010) and corporate-like features in universities (Meek, 2003).

The regulatory function of state covers establishment of rules, monitoring application of the rules and enforcement of rules as required basis. The function of the state has been reduced to only acting as a regulatory body and inclusion of the state into economic functions has been diminished in the Western countries. In particular the efficiency of the state on economy has been deducted and stated owned economic activities has been transferred to private sector.

In many countries, states have expanded their governing functions as an excuse for standardization. With the legal regulations made by entering into the finest details, all kinds of works of independent organizations started to be interfered with. Universities were the most affected autonomous institutes by this situation. The state has started to intervene in the election of university administrators, faculty standards and even curricula.

State universities that do not have financial autonomy were affected from this application. Private universities are losing their autonomy day by day with legal arrangements that intervene in even the finest details.

## **1. METHOD**

The aim of this study is to investigate how to arrange the academic programs of universities to meet the existing and future requirements of the society by reviewing significant changes in the technology. The main research problem will be to evaluate creation of academic programmes by keeping in mind the freedom of the university and the necessity of standardization.

The Meta-synthesis method (a systematic review that evaluates number of interrelated qualitative studies) is applied for these study. The study begins with the review of related literature which is mainly based on broad range of empirical researches. After summarizing previous studies and new improvements in the technology, it is intended to make an evaluation on the impacts of the changing structure of society and new requirements of economy. As a result of

this evaluation to assessment on the creation of universities' academic programmes and to introduce some proposals to produce balanced solutions mitigating inconveniences to adopt newly proposed systems.

In this research, it will be investigated how to arrange the academic programs of universities without given no compromise from the freedom of the university and the importance of standardization directly related to the quality control. This study maybe useful the researcher to understand the new posture of the world and higher education system and use as a reference for their studies related to universities.

## **2. RESEARCH AND DISCUSSION**

### **2.1. The Vision Mission and The Tasks of University**

The vision of the higher education is adding value to world cultural heritage and economy for prosperity of the human being.

The mission of the higher education is to provide education and learning, conduct research and produce innovation to get maximum advantage from the rapid development of technology.

Main Tasks to achieve the mission of the university are as follows.

- To develop the education and learning methods and content to provide qualified human resources to fulfil the requirement for existing and developing professions necessary to create sustainable social, cultural and economic life in both national and international scale.

- To achieve scientific research in support of continuously developing technology to provide better opportunities to get maximum benefit from all available sources.
- To create a centre for innovation to provide scientific data which requires to produce knowledge for all communities of the world to provide better living condition for humankind.

## **2.2. University Autonomy**

Autonomy means ‘the right of an organization, country, or region to be independent and govern itself’ in according to dictionary. An autonomous university have independent control over its routine operations and curriculum. Normally the sponsoring authority (state or private) does not have control over academic matters of the institute.

Estermann and Nokkala (2009) made a study on University Autonomy in Europe. The study covers also results of Rectors’ Conferences of the 20 member countries (including Turkey) responded to the online questionnaire of the research.

The analysis reveals that, in some countries, universities are gaining a greater flexibility in their staffing autonomy, in particular as staff is generally directly paid and/or employed by the university rather than by the government. The ability of universities to define individual salaries is still, however, controlled to a large degree by the government. In most countries majority of staff are in civil servant status and there are many restrictions to be an academician for employment for university staff. The analysis shows that there are significant differences in the recruitment of staff, ranging from a

larger degree of freedom to highly formalised procedures including external approvals from the government authorities. Although in some countries this is only a formality, it nevertheless impacts on the length of a recruitment procedure and therefore on the flexibility to act quickly in a competitive increasingly international recruitment environment.

Most of Mediterranean countries have very staffing autonomy as they have no possibility to determine the number of staff they recruit and hence have no control over the overall salary costs. Even individual salary levels are determined by national authorities. In terms of academic autonomy, key issues include the ability of universities to decide on their academic profiles, especially educational responsibilities (conferring degrees in certain areas), introducing and terminating programmes and the ability to select students.

All the programmes require approval from the national higher education agency. The introduction of new programmes usually requires some form of approval by the relevant government agencies/ministries. Additionally, availability of some physical equipment and sufficient real estate are cross-interrogated. This condition is generally not so much investigated for state universities, but private universities are deeply inspected and requested to fulfil all requirements.

Admission to higher education institutions is also governed by the state. Even number of the students to be registered for each programme is defined by state. Only in a few countries student quota

for each programme decided jointly by public authorities and universities. Universities in Croatia, Estonia and Luxembourg appear to have the greatest freedom in this respect. Bulgarian and Turkish universities, on the other hand, have the least power to decide on those elements, as they are entirely determined by the state.

Although the study confirms the existence of a general trend towards an increase in university autonomy throughout Europe, there are still a large number of countries that do not grant their universities enough autonomy, thereby limiting their performances. There are equally cases where autonomy previously granted has now been reduced. Quite often there is also a gap between formal autonomy and the real degree of a university's ability to act with certain independence. In a number of cases a significant increase in accountability measures has effectively curtailed university autonomy, which indicates the importance of finding the right balance in terms of the introduction of accountability tools.

In many universities in the European Area academic programs are to be verified by state controlled higher education agencies, Furthermore, state higher education authorities may make intervention on scope, content and credits of courses which is assumed a significant intervention to the academic autonomy. This creates many problems for universities to keep up with the technology which exponentially developing every day.

It is considered that it will be quite difficult for universities to produce “knowledge” and make research as they are continuously subject to state supervision even for developing their curriculum, their course content. We cannot neglect the importance of standardization today. However, besides standardization, it is possible to provide quality management with other methods such as advanced accreditation practices. For this reason, in this study, especially autonomy and standardization of academic programs will be examined, and suggestions will be presented.

Pruvot and Estermann (2017) made a study on the difference between a deemed university and an autonomous university (Scorecard, 2017).

The Scorecard 2017 provides a full comparative analysis of the state of play of university autonomy in 29 higher education systems in Europe. The report complements the presentation of the main outcomes which were revealed at EUA’s annual conference on “Autonomy and freedom: The future sustainability of universities” held in April 2017.

This extensive study, marking 10 years of EUA’s work on university autonomy and more than five years of mapping, is a central reference in discussions and analyses of institutional autonomy – both in Europe and beyond.

The report addresses the question of university autonomy in “organisational, financial, staffing and academic” matters, and compares data for all indicators that constitute EUA’s Autonomy Scorecard. It allows readers to have a full overview of the state of play

and of recent developments in each of these fields – assessing the capacity of universities to decide on issues as diverse as tuition fees, governance structures, recruitments and salaries or language of instruction and student numbers. The report ranks systems for each autonomy dimension in a special Scorecard. It also uncovers trends for each area, highlighting improvements and causes for concern.

However, the Autonomous have to consider a particular time for all the colleges under it.

University Academic Autonomy which covers the followings.

- Capacity to decide on overall student numbers
- Ability to select students
- Ability to introduce programmes
- Ability to terminate programmes
- Ability to choose the language of instruction
- Capacity to select QA mechanisms and providers
- Ability to design content of degree programmes

As it has been seen above “***Ability to introduce, terminate and design content of degree programmes***” are the major component of the academic autonomy.

An autonomous university may be capable to design their day-by-day operation, scope and content of their academic programmes. And this is not valid only for private universities as well as state universities. The intervention of state authorities to academic programmes mat

cause an undesirable negative impact on freedom of university as well as limits the academic studies with some forms.

### **2.3. Standardization**

Standardization or standardisation is the process of implementing and developing technical standards based on the consensus of different parties that include firms, users, interest groups, standards organizations and governments (Wikipedia).

Standardization provides major advantages such as compatibility, interface and interoperability between the relevant systems as well as an inevitable method to ensure quality. The significant issue is that the standardization never establishes a barrier on free mind.

The major advantage of standardization is to facilitate quality control application. It will create reduction of the cost to facilitate same type or quality product. It will also facilitate interface and interoperability through other systems. It will be easier to find spare parts produced by different manufacturer but in the same standards as well as facilitation of international cooperation and collaboration.

The major disadvantage is standardization is to stifle and hinder the creativity and enforce the human being to work on stereo type products. Today, people want to have products that make a difference besides quality and affordable prices. People are looking for different type products even having the same quality and model. They want to have products that make a difference from the equivalent type, model

and quality. Standardization creates repetition and sameness which may stop the invention expectation.

Standardization will decrease the productivity in organizations where research and development activities are important such as universities.

#### **2.4. Rapid Change of Technology**

The world is rapidly changing. In order to understand this change it would be better to understand the futurist's opinions for the future.

Today we are living in a disruptive environment led by Disruptive Technology. The technologic development is exponential not linear. The classical management methods and technologic approaches is not sufficient to understand today's developments and be prepared for the future.

Frank (2014) create a figure which contains three curves – one spawns the other. The technology curve (computing power, storage, and bandwidth) is implied. The innovation curve focuses on broad categories of innovation (versus specific innovations like Uber). As these innovations combine, they spawn a disruptive scenario curve (autonomous vehicles, smart homes, etc.). The potential exists for these disruptive scenarios to combine to drive a third curve – a new economic paradigm (Figure 1).



need to assess and use this new knowledge effectively, dispassionately and – in a word – wisely (Pelton, 2019).

Most aspects of education is continuously changing. IT support use of simulators and distance learning drastically changed the role of the instructors and form of delivery of courses. Online courses, homework assignments and examinations made a revolution in education providing education availability out of the classrooms. The people living in long distances, remote areas now have the opportunity to receive education opportunities easily. Those who want to reach developing technology can benefit from further education by using these methods.

European Commission (2017) has published a Strategy document on Digital Single Market, namely ‘Quantum Technology Flagship Program Final Report’. In this document it has been stated that “Supporting research and innovation in advanced computing is key to the development of the computing systems of tomorrow, which will go beyond the limitations of today’s technology in terms of speed, reliability and efficiency”.

The QT Flagship program should be structured in five **domains**, each of which should be reflected in a call for proposals. Four vertical domains (not necessarily of the same size in terms of allocated resources) address vital application areas of a future *knowledge driven* industry (Figure 2).

- **Communication**, to guarantee secure data transmission and long-term security for the information society by using quantum resources for communication protocols.
- **Computation**, to solve problems beyond the reach of current or conceivable classical processors by using programmable quantum machines.
- **Simulation**, to understand and solve important problems, e.g. chemical processes, the development of new materials, as well as fundamental physical theories, by mapping them onto controlled quantum systems in an analogue or digital way.
- **Sensing and metrology**, to achieve unprecedented sensitivity, accuracy and resolution in measurement and diagnostics, by coherently manipulating quantum objects.

Basic Science will be a horizontally fully cross-cutting domain, to develop novel ideas that can have a major impact on the four application domains, ranging from theoretical and experimental fundamental science to proof-of-principle experiments, capable of delivering the concepts, tools, components, materials, methods and processes that will enable the flagship objectives to be realised. An integral part of each application domain will be common enabling aspects in the following categories:

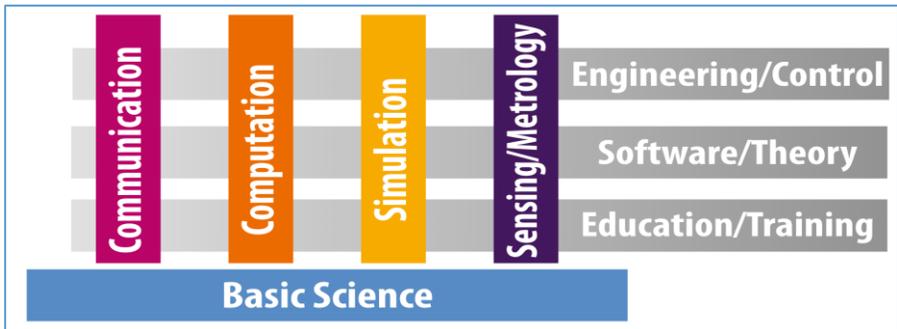
- **Engineering and Control**: Advancing the understanding, design, control, construction and use of new technologies and driving their transition from concepts, theories, one-off and proof-of-principle experiments, to devices suitable for use in

applications and eventually for products, by facilitating materials fabrication and miniaturised or integrated solutions for low-cost, robust, high-yield and scalable devices and systems applicable to diverse technology platforms;

- **Software and Theory:** Developing quantum algorithms, protocols, and applications, and connecting to tools for control and certification that understand and profit from the quantum advantage.
- **Education and Training:** Specific programmes for training a new generation of skilled technicians, engineers, scientists and application developers in QT and fostering ecosystems for them to work on shared mission-driven technologies and to develop and standardise tools and software. This includes a strong dissemination work towards society, to allow new and senior professionals, and the public in general, to understand the potential of QT and their benefits.

Projects should be positioned within one of the domains and may link to other domains.

They should always address Education and Training as well as at least one of the other two enabling aspects.



**Figure 2.** Structure of the Strategic Research Agenda (Source: European Commission, 2017)

It is understood that programme developers should consider new courses beyond the Basic science and main subjects of each disciplines. Depending upon the specifications of each disciplines, communication, Computations, Simulation, Sensing and Metrology are the new areas may be converted courses to facilitate inclusion of Quantum Technologies in education system.

### **2.5. Posture of Education Based on the Existing Developments and Future Scenarios**

In order to make better estimation for the future trends in higher education, it would be better to work on the different scenarios. OECD CERI (Centre for Educational Research Institute) organized an expert meeting on “University futures and new technologies” and a discussion paper submitted at the end of these meeting mentions about six scenarios for universities (OECD/CERI, 2004).

In this study discussion will be made on these scenarios to understand the existing situation and expectation for the future.

Scenario 1 (Tradition will continue with some changes):

Universities will establish close coordination and relations between industry and business to improve their both teaching and research activities. There are significant studies to meet the manpower requirements of the business and industry sectors to ensure competency for work, but it could not been fully achieved. The primary and secondary education is fully controlled by the government. Tertiary education also covers associated degree studies based on the cradle of intermediate manpower.

#### Scenario 2 (Entrepreneurial Approach):

The education system will be led by an entrepreneurial understanding. The education institutes will redesign their system to satisfy both their students and sectors of which they will be deployed as well as increase their income by the way research studies which draws attention of the industry. The number of the private education institutions will increase and probably a mixed public-private funding model would be established.

#### Scenario 3 (Education Sector in the Free market)

The private education institutes will expand in the near future and this trend will continue gradually. In this case the quality assurance and accreditation will become important under the competitive condition of the free market mechanism. The institution swill start to become specialised by function in accordance to their commercial goals in the market. Some will focus on teaching or research, as some focuses on different type of students or delivery method such as distance education, adult education, lifelong learning etc. International

education market will increase and internationally accepted education systems will be embraced.

Scenario 4 (Lifelong learning and open education):

Rapid change of the technology requires quick and continuous changes in the economic activities. Information and knowledge will be driving factor for all type of production lines. The business and industry will require competent and flexible manpower which have been equipped with updated and specialized information. The education institutes will assume a new role to assist professional development of the employees.

Scenario 5 (Global network of institutions):

The education is now market-driven and in particular universities are paying attention market requirements for their plans and investments for the future. Education sector started to use standard contents which has been prepared by close cooperation with industry and business world to fulfil their requirements.

Scenario 6 (Diversity of recognised learning – Disappearance of universities):

This scenario introduce a very tough situation which assuming conventional education system will replace with a new tradition. A continuous- lifelong education system based on the continuous professional development will replace the classical system. People learn required knowledge and gain skills and competencies using all available type of education facilities and learning methods from class

teaching to distance learning.. Technology is an enabler with devices such as computer or smart phones for the distribution of information and knowledge.

It is understood that both education systems and the education institutions require to change in the next decades as a result of drastic changes in the business and industry. All the scenarios dictates changes in the education systems. It is necessary to make changes in different forms and different grades to support each scenarios. All public and private education regulatory authorities/planners/conductors should determine the most appropriate scenario for themselves and to take the measures required by this accepted scenario.

Common issues for all scenarios:

- Flexible rules and structures is necessary to respond continuously changing requirements.
- The education institutes should be managed with a commercial understanding.
- Institutions need to improve their financial system to survive.
- The institutes need to improve their coordination capabilities to achieve cooperation and collaborations with business and industry.
- The customer satisfaction will not be based only the students but also business and industry.

- Creation of a holistic education and training system is required for matching academic and vocational requirements (Demirel, 2015)
- 21st Century is information and innovation era and institutes in particular universities need to produce information and make research for innovation in support of business and industry.
- They should keep in mind that their primary task is to provision of qualified manpower required by respective business, industry, government and society (If they could not fulfil this task all partners will their own education and training systems).

## **2.6. New Forms of Education**

Rapid changes in technology dictates a continues and lifelong education system adopt the people for new life and business style and new requirements of the business, industry and society. A new form of education system is required to assist independent learning, lifelong learning in particular assisting to compensate professional and cultural skills of the previous traditional stages of the education periods to adopt the people for new form/order of the world.

Advancements in technology continue to expand the possibilities for flexible, adaptable learning management systems (LMS). A modern LMS should give an opportunity to learner to access new knowledge using personal devices such as existing potential application of Instagram and WhatsApp.

Universities should critically examine their current model, develop a vision to define their mission based on the future model. It would be very hard to transform their structure in a short period and they should develop a transition plan.

Student affairs departments and admission procedures considering big changes in the students' structure (mid-age, newcomers, professional courses) should be rearranged.

### **2.7. The Importance of the Content of the Academic Programs**

In the elementary and secondary education, the people who deliver the courses are called teacher, while in tertiary education they are called *lecturer*. The role of the lecturer in tertiary education is no longer teaching, but it is to introduce a specific subject and accustom the student to learn about and use this information. Here, lecturer has to act as a lecturer presenting in a conference. It would not be correct to limit the topics that a lecturer will present to a standard form and content.

There is a relation between each programme and the course content in the university education (L-6) to redound an ability to learners, such as;

- Application of math and science in related major area
- Understanding operation systems and ability to develop procedures and processes
- Analysis of the data, problem solving and decision making ability

- Ability of system design, development of components of systems
- Ability of designing conducting and research, and ability to analyse and interpretation of findings
- Identifying, formulating and evaluation problems to develop solution
- Conduct of effective communication
- It seems very hard to achieve all these goals using a standard syllabus and bounded content. A lecturer should be free to design his/her content and delivery plan adding his/her acquis.

The teacher's role is essential in creating a high-quality student experience and enabling the acquisition of knowledge, competences and skills. The diversifying student population and stronger focus on learning outcomes require student-centred learning and teaching and the role of the teacher is, therefore, also changing (ESG, 2015).

At the bachelor's level, the student:

- Frames a complex scientific, social, technological, economic or aesthetic challenge or problem from the perspectives and literature of at least two academic fields, and proposes a “best approach” to the question or challenge using evidence from those fields.
- Produces, independently or collaboratively, an investigative, creative or practical work that draws on specific theories, tools and methods from at least two academic fields.

- Explains a contemporary or recurring challenge or problem in science, the arts, society, human services, economic life or technology from the perspective of at least two academic fields, explains how the methods of inquiry and/or research in those disciplines can be brought to bear in addressing the challenge, judges the likelihood that the combination of disciplinary perspectives and methods would contribute to the resolution of the challenge, and justifies the importance of the challenge in a social or global context.

American higher education is marked by a commitment to wide access, to rich diversity, to *academic freedom* and its responsibilities, to broad liberal education as well as specialized learning, to civic education for a democracy, and to innovative, integrative, inquiry-focused and collaborative pedagogies (LUMINA, 2011).

Institutions should have processes for the *design and approval* of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area (EGS, 2015). It is important that university has the right to design and approval of their programme in coordination with the national qualification authorities (NQA) for harmonization of

different programmes, but that does not mean a NQA are the approval authorities.

## **2.8. University and Research:**

The research function of the universities is increasing gradually in the new world order. Research is also a significant factor to enhance financial capacity of the universities. This situation enforces universities to establish close links with society (in particular NGOs and civil societies), business and industry. The universities are going to be specialized in specific areas. Being the manufacturer of knowledge and producer of innovation, universities are also assuming the roles to create policies, procedures and processes for business and industry

Higher education institutions have primary responsibility for the quality of their staff and for providing them with a supportive environment that allows them to carry out their work effectively. Such an environment (EGS, 2015);

- Sets up and follows clear, transparent and fair processes for staff recruitment and conditions of employment that recognise the importance of teaching.
- Offers opportunities for and promotes the professional development of teaching staff.
- Encourages scholarly activity to strengthen the link between *education* and *research*.

- Encourages innovation in teaching methods and the use of new technologies.

These developments also affect the manner of creation of the academic programmes. Universities are now developing and continuously updating their academic programmes taking into requirements of the industry and keeping up with the new technologies.

## **2.9. University Governance**

Until the last quarter of the 20th century, many European universities had been primarily governed by academics, and the state acted as a buffer protecting higher education institutions and academics from the interference of external interests (Neave, 2012) and held ruling power over non-academic matters.

Explores approaches to effective leadership and strategic management in the twenty-first century university that recognize and respond to the perceptions and attitudes of university leaders toward institutional structures. It examines the differences between treating universities as businesses and managing universities in a business-like manner, what kinds of leadership will best address challenges, and how to gain consensus among constituents that change is needed. From historical background to modern e-learning techniques, we look at governance to find systems that are effectively structured to balance the needs of students, educators, administrators, trustees, and legislators (Dennis, 2003).

Any type of governance model for universities may be suitable considering the mission, role and capacity of the institute but the model will be selected must be appropriate for allowing autonomy of universities which is required to create free thinking environment which allows creation of invention and innovation.

### **3. CONCLUSION**

The university autonomy consists of four elements: Organizational, Financial, Staffing and Academic autonomies. All elements of autonomy are interconnected and integrated each other. University autonomy may not be evaluated without taking into account after all these dimensions.

#### **3.1. Organisational Autonomy**

Many governments changed their legal applications concerning university autonomy related to the organizational applications. This changes generally increased participation of external members in the university governing bodies as in line with strategic management concept. As some countries has enhanced organizational autonomy of universities, some like Turkey and Bulgaria has made changes contrary to organizational autonomy. In such countries state control over university seriously increased and created negative impact on university management. Increase of government financial control has caused many constrains on autonomy of for universities.

### **3.2. Financial Autonomy**

Financial autonomy is important for universities to make plans and conduct to reach their strategic aims and objectives which shapes their policy and operations. Not only the state universities but also private universities have been affected from tight financial control of the governments. Tuition fees is the most important element of financial autonomy. The political choices of the governments could be easily reflected to financial structure of university and this situation may hamper their financial autonomy.

The government controls financial sources of a state university. Once university loses its financial autonomy it is very easy for the government to canalize the university in according to government policies. Unless state university has financial autonomy, it is not possible to mention about university autonomy. The tighter administrative and financial control of government directly affect not only the states, but also private universities and this situation may cause steering of university in line with government's politic preferences

### **3.3. Staffing Autonomy**

Staffing autonomy means university has the right of selection of academic staff which directly affects quality of teaching and research. There is not a problem on this issue in the democratic countries, but in the other countries there is a great variety of rules and restrictions applying to recruitment and salary setting. In the most countries university academic staff are in the civil servant status and this

situation create a negative effect on both salaries and freedom of speech of the academician.

### **3.4. Academic Autonomy**

As a result of continued transition process in the academic system, accreditation, institutional internal and external quality assurance become highly important even inevitable. Actually creation of additional systems like administrative audits by the government will not contribute the improvement of standardization but hamper the academic autonomy. The government agencies increased their control universities using the gradually increasing detailed inspections which created unbearable administrative workload and restrained freedom to revise their academic activities

In the most countries, introduction of new degree programmes even revise of existing programmes requires some form of approval from a public agency. The higher education agencies started to assume control role beyond their governing functions. This create hardship to review and redesign academic programmes to meet the new requirements of the industry.

The national governments are creating direct and indirect steering mechanisms to take over the control of universities, generally using the standardization as an excuse. The continuous and heavy reporting systems and biannual site-visit type inspections based on standardization is now became another tool to establish control on private universities. Now higher education is in a dilemma between

autonomy and standardization which have been used as a tool to establish a tighter control over universities

It is strongly believed that institutional external quality assurance practices will be sufficient instead of settling tight rules for adaptation of new programmes. This will also assist to protection of academic autonomy.

### **3.5. Survival and Sustainability of Universities**

Financial sources are the key issue for survival of an institution as well as providing autonomy. Without surviving an institute, it is impossible to create a sustainable development. The formal autonomy of university is a significant indicator of democracy in developed societies. Unfortunately, in some countries even in well-developed Western countries, previously granted autonomy is going to be reduced. The public funds is still the important tool to control public universities.

The only way to survive and secure a sustainable development in the universities is to find financial sources which are independent from the government. This will change the operation of a university like a commercial facility.

### **3.6. Governance of University**

De Boer and Denters (1999) use the term institutions of university governance to refer to the rules and formal procedures pertaining to the making of decisions on policies and their implementation within universities.

The dominance of academician on the governance of university has finished in the 21st century due to development in the financial, political and socio-cultural situation. The university governance are shaping as a business management model and leadership is now in the hands of the managerial professionals. There is no way to change this situation but the importance of autonomy of university should be protected. Governance in the higher education institutes is becoming a most complicated issue.

Managing a university, variously described as 'monadic chaos' or 'organised anarchy', is a redoubtable challenge. Of all issues currently under discussion in the world of higher education, few are more controversial than those pertaining to the institutions of governance (Neave 1988). The governance of universities using conventional management procedures will not be acceptable in the 21<sup>st</sup> century. A dynamic and flexible governance system to adopt new technologic developments will be the governance model for the future universities.

We can never deny the importance of standardization today. However, we should avoid using standardization as a tool to hamper academic freedom.

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## CHAPTER 6

### EFFECT OF SCRATCH SOFTWARE ON COMPUTATIONAL THINKING SKILLS OF MEDICAL DOCUMENTATION AND SECRETARIAL DEPARTMENT STUDENTS

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## **INTRODUCTION**

Recent computer technology is improving and becoming more common in medicine and health fields as well as it is in every field (Dockery, 2019). The services provided by healthcare professionals increasingly depend on technology. In addition, healthcare providers in health care institutions need to obtain the right information within information and communication technologies and have the ability to interact between departments in order to be able to provide high quality services (İçli et al., 2005; Lindberg, 2013; Babiker et al., 2014; MedProGroup, 2016).

Today, we access information within the shortest time owing to the use of computers. Computational thinking is a new problem-solving approach for the widespread use of computer science techniques according to Voskoglou and Buckley (2012). Being able to use computer technologies correctly and effectively is related to computational thinking power. This approach reinforces the combination of technology and thought. Özden (2015) defines computational thinking as the combination of the knowledge-skills and attitudes necessary to use computers as a tool to solve problems we face in everyday life. Stephen Wolfram, briefly describes computational thinking as the ability to formulate thoughts and questions in a manner that is communicable to a computer to achieve desired results (Weber, 2018). According to Grover and Pea (2017), computational thinking is the thought processes involved in formulating a problem and expressing its solution(s) in such a way

that a computer – human or machine – can effectively carry out.

Wing (2006), ISTE (2015), Yıldız Durak & Güyer (2018) and Doleck et al. (2017) state that computational thinking will be among the basic skills (such as reading, writing and mathematics) used in the 21st century; which may be considered as; a combination/expression of problem solving; creative thinking; critical thinking; cooperative learning; algorithmic thinking; and communication skills. Computational thinking cannot be fully expressed without these skills. It is clear that improving computational thinking will contribute to the development of 21st century skills. Wong and Cheung (2018), provide some structural understanding of how some 21st century skills can be matched to computational thinking and how to approach programming learning (Table 1). In this context, it can be inferred that programming instruction is an important tool to gain computational thinking skills (Lye & Koh, 2014).

**Table 1.** Conceptual Framework of Computational Thinking (Wong And Cheung, 2018)

<b>Dimensions</b>	<b>Descriptions</b>	<b>Examples</b>	<b>Mapped twentyfirst Century Skills</b>
Computational concepts	Syntactic, semantic and schematic knowledge commonly used in programming	Variables, loops (e.g. repeat, do....while), conditionals (e.g. if....then....else), operators (e.g. arithmetic and comparison)	Critical thinking Problem solving
Computational practices	Strategic knowledge to solve programming problem during the	Being incremental and iterative, testing and debugging, reusing and remixing and	Creativity Critical thinking Problem solving

	process of thinking and practices	abstracting and modularising.	
Computational perspectives	Understandings of personal, social and technological relationships around them in connection to programming	Expressing and questioning the technology world through computation (e.g. Create their own digital stories with Scratch)	Creativity Critical thinking

There are many programs that emphasize visibility in facilitating programming education. Programming tools such as Scratch, Alice, Microsoft Small Basic, and Toontalk can be considered among these (Çatlak, Tekdal and Baz, 2015). Via these programs, students' computational thinking skills can be enhanced. Computational thinking development tools often need to be shared in small groups, which could provide great opportunities for collaboration and communication (Ching et al., 2018). According to Millner, Huang, and Corbett (2013), programs such as Scratch, StarLogo TNG contribute to the success of students in creating self-efficacy, enhancing creative and personally expressive vocabulary, and helping to remove the restrictions in language skills. Such programs use game design that makes learning more fun and the game design process can also help students understand the logic of programming (Erol and Kurt, 2017).

Programs like Scratch, one of the tools of computational thinking, allow expressing that codes that can be written in several lines in a text-based language can be displayed in a single block in visual-based languages. It is noted in literature that the Scratch program is a useful

tool for providing students with the logic of an algorithm (Armoni, Meerbaum-Salant & Ben-Ari, 2015; Maloney, Resnick, Rusk, Silverman & Eastmond, 2010). According to Resnick et al. (2009), the objective of Scratch is not raising professional programmers, but giving users the chance to express their systematic and creative ideas through programming. Because of this, users of the Scratch program learn not only important mathematical and computational concepts, but also learn to think creatively, why to work systematically and how to work cooperatively while programming and sharing interactive projects. Durak (2018) emphasizes that students understand Scratch more easily affects active engagement positively.

There are studies that examined the effect of programming tools on programming instruction in literature (Federici, 2011; Su et al., 2015). However, studies that investigated whether computational thinking skills (including substantial skills such as problem solving and enhancement of algorithms) improve through using the Scratch program seem to be very limited in literature and most of the studies were conducted with prospective teachers and children. In recent years coding education have become widespread, so it is thought that studies investigating the relationship between coding and computational thinking can contribute to the field. Computational thinking is a skill that will be used to find a solution to a problem in many occupational groups, not only for those who do computer profession. Therefore, it is important to acquire computational thinking skills for healthcare professionals who face a constant problem.

Health information systems and decision support systems are developing very much and technology performance increases exponentially (Işık & Akbolat, 2010). With the use of advanced information technologies, the need for autonomous and qualified human resources increases which can take care of all stages of business processes (Öğüt, 2001). Health care service is the labour intensive sector that is used advanced technology and assumed comprehensive and coordinated care by physicians, nurses, technicians, therapists, administrators, medical secretaries and other health care professionals. Medical secretaries regarding one of the members of the health care team perform secretarial duties utilizing specific knowledge of medical terminology and hospital, clinic, or laboratory procedures (Career Planner, 2018). It is an indispensable need for medical secretaries to acquire computer thinking skills and apply the skills acquired consciously, especially in the present day when the automation of hospital information systems is increasing. It is among the duties of the medical secretaries to collect the data about medical statistics and to analyze them with scientific methods and to report the results to the concerned periodically (Kaplan ve Köksal, 2017). Algorithmic skills are important in performing these works systematically and keeping regular records of health-related documents, updating them, and doing their work with zero errors when necessary.

The skills that medical secretaries should have are described as critical thinking, judgment and decision making, time management, complex problem solving, learning strategies, active learning, reading

comprehension, active listening, writing, speaking, monitoring, social perceptiveness, service orientation (My Majors, 2019). Medical Secretaries often use information and communication technologies to perform their task. Computer technology in addition to helping to integrate resources, enables rapid and accurate sharing of information about patients, coding of professional information and associating it to related databases through computerized information systems (Ay, 2009). The ability of medical secretaries to acquire computer thinking skills is a great benefit to their performance. Medical secretaries graduate from Medical Documentation and Secretarial (MDS) department. Developing these skills of MDS students is important to prepare them both for everyday life and their professional lives. Graduates of the MDS department should be able to use ICTs at the highest level and effectively, by combining their knowledge in the hospital information system with creative thinking, problem solving, cooperative learning and communication skills in their professional lives. Computational thinking in teaching is very important because technology is widely used in the lessons, as well as in personal and professional life. Beside, there is little research about this topic in Turkey in comparison to international literature, so it is necessary to perform new research. When considering studies in the literature, this study is important, because it investigates both computational thinking and Scratch for MDS students.

In this study, aim to investigate the effect of Scratch programming tool on computational thinking skills and on perceptions of programming. Sub-problems of the research conducted are:

1. Does the use of Scratch by students of MDS department in information technology course have an impact on gaining computational thinking skills?
2. How are the computational thinking skills and perception levels of MDS department students for Scratch software based on their post-test scores?
3. Does the perception of MDS Department students for Scratch software differ significantly by usage frequency of the program?
4. Is there a significant relationship between computational thinking skills and perceptions of the students of MDS department for Scratch software?

## **1. METHOD**

This study was designed according to a single group pre-test and post-test pattern. The process was performed after a group is pre-tested and then the final test is performed and the difference between them is examined. In this study aimed to see whether there was any difference between pre- and post-implementation scores of same group of the computational thinking skills scores of the MDS students using the Scratch programming.

### **Sample of Study**

63 students studying in the first grade of Medical Documentation and Secretarial (MDS) department of a state university in the academic year of 2018-2019 participated in the study. The participants voluntarily participated in the study and their written consent was

obtained. The demographic characteristics of the students participated in the study are given in Table 2.

**Table 2.** Characteristics of Participants

<b>Gender</b>	<b>N</b>	<b>%</b>
Female	52	82.5
Male	11	17.5
<b>Computer Ownership</b>		
Yes	43	68.3
No	20	31.7
<b>Daily computer usage time</b>		
Less than 1 hour	40	63.5
1-3 hours	23	36.5
<b>Having attended programing course before</b>		
Those who had	4	6.4
Those who did not have	59	93.6

## **Data Collection Tools**

The Computational Thinking Skills Scale and Children's Programming Language- Students' Perception Questionnaire of Small Basic software were used in the study. Specifics of these surveys are given below.

**The Computational Thinking Skills Scale:** This scale was developed by Korkmaz, Çakır and Özden (2017). The scale is a five-point Likert-type scale consisting of 29 items and 5 factors, which are: creativity (8 items), problem solving (6 items), algorithmic thinking (6 items), cooperativity (4 items) and critical thinking (5 items). Each of the items in the scale has been scaled as follows; Almost always (5); Frequently (4); Occasionally (3); Rarely (2); and Almost Never (1). Reliability analysis for the whole scale is Cronbach Alpha=0.82 (Cronbach Alpha for creativity 0.843; algorithmic thinking 0.869; cooperativity 0.865; critical thinking 0.784; problem solving 0.727), where a value above 0.7 indicated adequate reliability. The Kaiser-Meyer-Olkin Test for sampling adequacy (KMO)= 0.880. Factors account for 56.1% of the variance.

**Perceptions about Scratch Programming Tool Questionnaire:** This scale was developed by Tursak (2007) in English, and adapted to Turkish by Akçay (2009) for "Small Basic" software and then re-adapted by Yükseltürk and Altıok (2016) for Scratch software. The reliability coefficient was found to be Cronbach Alpha= 0.927 and KMO=0.917. The five-point Likert type questionnaire consists of 27 items sub three factors of motivation (Cronbach alpha=0.859), usefulness (Cronbach alpha=0.865) and ease of use (Cronbach alpha=0.806).

### **Experimental Process**

During the first semester of the academic year, first year students of the MDS Department were instructed about general applications about word processor program, presentation program, and electronic calculation program used in Office program kit in Use of Computer Technologies class. In the second semester students were taught problem-solving steps with algorithms that constitute the logic of running the computer and gain the necessary skills to perform simple practices that can be used in daily life and to detect and correct errors in program codes.

In the previous semester, it was observed that students had a lack of knowledge on the spreadsheet they learned and computational thinking power was insufficient. In order to increase their algorithmic thinking and problem-solving abilities, students of MDS Department were instructed about programming with Scratch and the training program continued in face-to-face environment for 12 weeks with 3

hours of lessons per week. In this study aimed, that learning coding logic in programming could be facilitated by use of user-friendly and visual programming tools. Course resources and applications were presented to students through a learning management system (UZEM LMS).

In the 3rd week of the semester, 18 groups of four students were created to develop collaborative learning and problem-solving skills in professional lives of students. The groups were asked to prepare projects about their professional fields according to their missing applications in the Electronic Calculation program. In order to explain the programming logic by visualization, programming with Scratch was taught, the students were asked to prepare project, so they first designed the digital story on paper and coded it in scratch program. The students presented the story part of the project they prepared to the instructors and their classmates in the midst of the study and they presented the coding part in the last week of the study.

In this study, we aimed to determine how teaching of programming with Scratch affected the students' computational thinking skills and to find out levels of perception about Scratch software at the end of the study. While designing weekly lessons in the study, the programming steps that almost all programmers apply were used. The distribution of the subjects on a weekly basis is given in Table 3.

**Table 3:** Distribution of Subjects, Activities and Acquisitions By Week

<b>Week</b>	<b>Subject</b>	<b>In-class activity</b>	<b>Out-of-class activity</b>	<b>Acquisitions</b>
1	Identifying the problem and developing solutions. Definition of the algorithm.  The importance of algorithm in problem solving. Operators used in algorithms and examples of algorithms. The importance and examples of flow diagrams in problem solving.	Watching animation and video about algorithm logic in Uzem LMS platform.  Discussion on the importance of the algorithm in daily life.	Watching video about algorithm logic in Uzem LMS platform.	Explain the concept of algorithm.  Knows the importance of algorithm in daily life.
2	Problem solving with general applications implemented by word processor program, presentation program and electronic calculation programs. Application of algorithmic thinking steps in these applications.	Discussion of the importance of algorithm logic in business environment to medical secretary students and demonstration of office applications with problem solving steps in computer environment.	Giving reinforcement applications in UZEM LMS platform.	Understands that the solutions in the professional life can be solved by algorithm logic and knows the logic of problem solving.
3	Algorithm design with digital storytelling. Process structure in algorithms: Concepts of variable, assignment-transfer, increase-decrease. Sequential addition and multiplication algorithms and flow diagram examples.	Visualization of problem solving steps with digital story designs.	Creating project groups and doing business with peers.	Explain the concepts of variable, linear logic and decision structure in applications.

4	<p>Programming basics with Scratch. Scratch program interface and recognition of code groups. Application of story designs with Scratch program.</p>	<p>Explanation of Scratch program definition and algorithm logic, which is one of the sample visual programs suitable for digital story design in problem solving.</p>	<p>The students discussed the project topics in their own groups and were asked to create a story design on the topic.</p>	<p>Recognize the interface and features of the block-based programming tool.</p> <p>Groups can discuss project topics with their peers. Creates story designs including linear or cyclic structure according to topics.</p>
5	<p>Definition of decor (stage), character (sprite) in Scratch program. Adding or designing decor /character. "Clicked" and "Stop" commands for the program's running.</p> <p>Examples of verbal / quantitative problems with algorithmic design and scratch (examples such as loop concept by moving of character with commands of repeat until/ forever , deceleration / acceleration by adding seconds, stage / character change, character speech).</p>	<p>Explaining decision structures and loop concepts with examples.</p> <p>Scratch program showing the application method according to the group of samples.</p>	<p>Examining examples about Scratch program in UZEM LMS platform.</p> <p>Watching animations from Scratch's website.</p>	<p>Creates programs including linear logic and decision structure.</p> <p>Knows algorithm steps by testing the program steps, debugging errors.</p>
6	<p>Algorithmic examples of verbal problems such as blood donation, communication with patients. Application</p>	<p>Explaining decision structures and loop concepts</p>	<p>According to the project topics, project groups to make story designs in</p>	<p>Recognize the steps to be followed in problem solving</p>

	<p>examples of simple mathematical problems such as addition.</p> <p>Designing of stage (decor) and character (sprite) in the project works, change and motion of the stage / character.</p>	<p>with examples.</p> <p>Make story designs in Scratch program.</p>	<p>Scratch program.</p> <p>Repetition of samples by project groups on UZEM LMS platform.</p>	<p>process.</p>
7	<p>When any key on the keyboard (such as space) is pressed, character (sprite), that is, when the object is clicked and the decor is ready, expression of the commands with examples.</p>	<p>Designing the class activities within the scope of the final project with the Scratch program.</p> <p>Feedback of the final project story designs.</p>	<p>Discussing the mistakes of the groups according to the feedback of the final project story designs.</p>	<p>Explain the components and functions of storytelling and algorithm logic for problem solving.</p>
8	<p>Expression of condition commands (IF / Option - Case) in the program. Verbal and quantitative examples. Repeating of examples by groups and application of conditional commands in project works.</p>	<p>Application of decision structures according to project topics with Scratch program.</p> <p>Fault detection.</p>	<p>Students were given 4 weeks to design their projects with scratch.</p>	<p>Creates the right algorithm to achieve the goals presented in a block-based programming environment.</p>
9	<p>Defining the concept of variable. The importance of variable types for computers. Creating variable (s). Designing stages / characters. Stage change according to conditions / character's asking question via using variable, moving with the keyboard arrow keys, adding / dropping points. Preparing the example</p>	<p>Assigning tasks to keyboard keys in Scratch program in computer environment and explaining the concept of variable with examples.</p>	<p>UZEM LMS platform, the labyrinth sample to the computer by examining the download and make by students.</p>	<p>Tests the programs including the loop structure and creates the commands in the project subjects.</p>

	of labyrinth with points according to groups.			
10	Drawing geometric drawings with loop commands. Logic of sub-programs with commands of “broadcast” and “when I receive” in the programming. Drawing shapes with commands of “when clicked” and “broadcast/when I receive”. Making calculation applications such as four operations, average, maximum with examples. Reflection of what learnt on their projects by groups.	Application of concepts in programming according to final project topics.	Designing the project works according to groups in computer environment.	Groups create an original project that includes programming structures.
11	Individual / group scored rosette studies with general application questions.	Individual / group scoring badge studies were performed with general practice questions. The students presented their projects. We were given information about existing deficiencies and corrections were made.	Groups discuss and make peer reviews about their projects.	Groups discuss peer review and project work. Makes error detection.
12	Control of groups' projects according to logic of algorithmic thinking. Measuring the contribution of group work to problem	Control of final project feedbacks, final control and project		Provides the ability of problem solving with group work and makes collaborative

In order to ensure that the algorithm steps, which are the basis of programming, can be written accurately and clearly by verbal expressions, lecturing is supported by sample algorithms, which include Scratch program codes.

### **Analysis of Data**

For the analysis of data, SPSS 18.0 program was used. Descriptive statistics, frequency analysis, mean, standard deviation, matched sample t test, variance and correlation tests were applied. The level of significance ( $p$ ) was accepted as 0.05. A paired group t-test was used to determine whether the mean difference in perception pre- and post-teaching was zero. In addition, the effect size was calculated to show whether the difference between the pre-test and post-test mean scores was significant. Effect size ranges introduced by Cohen's for t test are interpreted as cohen 0.2: small, 0.5: medium and 0.8: large (Cohen,1992). When the responses to scale items are assumed to be equal in degree interval, the highest value is subtracted from the lowest value and divided into number of degrees. The value of this range is  $4/5 = 0.8$  and is given in Table 4. MDS department students' computational thinking skills and perception levels for computer programming with Scratch were interpreted according to the values in Table 4.

**Table 4.** Limits of Score Distribution Related To The Research Scale

<b>Options</b>	<b>Limits</b>
I absolutely agree / Always (5)	4.20-5.00
I agree / Most of the time (4)	3.40-4.19
I agree a little / Sometimes (3)	2.60-3.39
I do not agree / Occasionally (2)	1.80-2.59
I strongly disagree / Never (1)	1.00-1.79

The Pearson Moments multiplication correlation test was adapted to determine the relationship between scales and sub-dimensions. Correlation test was used to determine the direction and amount of relationship between two variables, and if the correlation coefficient ( $r$ ) is defined as high (above 0.70), medium (0.3-0.7); low (below 0.3) relationship (Büyüköztürk, 2004). Kolmogorov-Smirnov test was used to test the normality of the data.

## **2. FINDINGS**

The results of the paired group t-test (Table 5) show that there was a statistically significant total difference in computational thinking skills before and after teaching using Scratch. The data were determined to show normal distribution according to the Kolmogorov-Smirnov test ( $p=0.200$ ). The results of the paired group t-test showed that when the students' computational thinking skills before and after a 12-week training of programming with Scratch was examined, a significant difference in favour of the post-test was found in the overall score ( $t(62) = 2.35$ ;  $p < .05$ ) and medium effect size (Cohen  $d=0.27$ ); in sub-dimensions of algorithmic thinking ( $t(62)=2.01$ ;  $p < .05$ ) and medium

effect size (Cohen  $d=0.25$ ); critical thinking ( $t(62) = 2.48$ ;  $p < .05$ ) and medium effect size (Cohen  $d=0.32$ ). Pre-test scores average of students were  $\bar{X} = 104.8$  in total, post-test scores averaged  $\bar{X} = 108.5$ ; pre-test scores average was  $\bar{X} = 15.1$  in algorithmic thinking sub-dimension while post-test scores averaged  $\bar{X} = 16.5$ , and in critical thinking sub-dimension, the pre-test scores averaged  $\bar{X} = 17.3$ , while post-test scores averaged  $\bar{X} = 18.5$ . There was not any significant difference between pre-test and post-test in creativity ( $t(62) = 1.91$ ;  $p > .05$ ), cooperativeness ( $t(62) = 1.72$ ;  $p > .05$ ) and problem solving ( $t(62) = 0.78$ ;  $p > .05$ ) sub-dimensions.

**Table 5.** T-Test Results of Pre-Test and Post-Test Average Scores of Students' Computational Thinking Skills (N=63)

Computational thinking skills		$\bar{X}$	S.s.	t	p	Cohen d
Total	Pretest	104.79	13.22	2.35	0.022	0.266
	Posttest	108.49	14.53			
Creativity	Pretest	34.48	3.35	1.91	0.061	0.262
	Posttest	35.37	3.45			
Algorithmic Thinking	Pretest	15.13	5.15	2.01	0.048	0,251
	Posttest	16.52	5.91			
Cooperativity	Pretest	16.10	3.47	1.72	0.090	0,219
	Posttest	16.79	2.78			
Critical thinking	Pretest	17.25	3.39	2.48	0.016	0,317
	Posttest	18.49	4.38			
Problem solving	Pretest	21.84	3.87	0.78	0.436	0.108
	Posttest	21.32	5.62			

Descriptive statistics of the items in the scale applied to MDS department students in order to determine their computational thinking skills and perception levels for computer programming with Scratch were calculated according to post-test and the findings are given in Table 6. According to this table, students stated that they most of the time realized the skills required by computational thinking totally of scale and in sub-dimensions of critical thinking and problem-solving skills; always in creativity and cooperativity sub-dimensions and sometimes in sub-dimension of algorithmic thinking.

The students' perception level for Scratch software has been determined to be at the level of "I absolutely agree" in general and in sub-dimensions of perceived motivation and ease of use, while it is at the level of "I agree" in usefulness sub-dimension. In the view of these findings, it can be said that students have developed a positive perception for Scratch software.

**Table 6.** MDS Department Students' Computational Thinking Skills And Perception Levels For Computer Programming With Scratch

<b>Computational Thinking Skills</b>	<b>N</b>	<b>Number of Item</b>	<b><math>\bar{X}</math></b>	<b>SD</b>
Creativity		8	4,42	0,43
Algorithmic Thinking		6	2,75	0,99
Cooperativity	63	4	4,20	0,70
Critical Thinking		5	3,70	0,88
Problem Solving		6	3,55	0,94
<b>Total</b>		<b>29</b>	<b>3,74</b>	<b>0,50</b>
<b>Perception level for Scratch software</b>	<b>N</b>	<b>Number of Item</b>	<b><math>\bar{X}</math></b>	<b>SD</b>
Usefulness		9	3,56	1,04
Motivation	63	9	4,29	0,87
Ease of Use		9	4,90	0,68
<b>Total</b>			<b>27</b>	<b>4,60</b>

The post-test scores of the students were compared in the ANOVA test (Scheffe and Tamhane) according to the usage frequency of the Scratch software out of the computer course time score averages and differences between groups are given in table 7. The Scheffe test was used because the groups had a homogeneous distribution and there were more than 3 groups (Ruxton and Beauchamp, 2008). Perception levels for Scratch software were more positive with those who used Scratch software out of computer course class every day and several times a day compared to those who used it never or one-two times a week it, and computational thinking skills of those who used Scratch software out of computer course class several times in a day seemed to be more positive than those who used it never or one-two times in a week. It can be said that students who frequently use the Scratch program, their perceptions towards scratch become more positive and their computational thinking skills increase.

**Table 7.** Average Post-Test Scores of The Students According to The Frequency of Using the Scratch Software Out of The Computer Course Class.

Frequency of use		N	x	S.d.	f	p	Difference
<b>Computational Thinking Skills</b>	Never or 1-2 times a week (1)	19	101	11.56	3.558	.02	4-1
	3-5 times a week (2)	16	110.44	14.55			
	Everyday (3)	19	109.89	13.86			
	More than once a day (4)	9	117.56	14.04			
	Total	63	107.74	14.21			
<b>Perception levels of Scratch software</b>	Never or 1-2 times a week (1)	19	85.42	21.15	5.001	.004	3-1 4-1
	3-5 times a week (2)	16	93.13	18.62			
	Everyday (3)	19	103.21	15.69			
	More than once a day (4)	9	110.22	16.68			
	Total	63	95.93	20.07			

The relationship between computational thinking skills of MDS students and their perception levels for Scratch software were examined generally and in terms of sub-dimensions according to post-test and the results are given in Table 8. There was a significant relationship in some dimensions in terms of sub-dimensions of computational thinking skills and perceptions for Scratch software. Accordingly a significant and middle-level positive relationship was found to be between algorithmic thinking with usefulness and motivation; between cooperativity with usefulness and motivation; between critical thinking with usefulness and ease of use.

**Table 8.** Pearson Correlation Coefficients (R) (N = 63) Between Computational Thinking Skills, Perception Level For Scratch Software And Their Subscales.

Correlations		Creativity	Algorithmic Thinking	Cooperativity	Critical Thinking	Problem Solving	Usefulness	Motivation	Ease of Use
Computational Thinking Skills	Creativity	-	.443**	.531**	.534**	.185	.114	.162	.041
	Algorithmic Thinking		-	.290*	.638**	-.152	.281*	.262*	.107
	Cooperativity			-	.581**	.189	.291*	.271*	.150
	Critical Thinking				-	.032	.324**	.217	.254*
	Problem Solving					-	.022	.140	.156
Perception levels of Scratch	Usefulness						-	.888**	.642**
	Motivation							-	.551**
	Ease of Use								-

Correlation is significant at the \*\*p <0.01 and \*p <0.05 level (2-tailed).

### 3. DISCUSSION AND CONCLUSION

In this research, teaching of programming with algorithms and Scratch, which constitute working logic of the computer, has been carried out. It was aimed to determine how the teaching of programming with Scratch affected the students' computational thinking skills and the perception level for Scratch software at the end of the study. For this purpose, 12-week training was planned, "Computational Thinking Skills Scale" was adapted to students before and after training, and "Student Perception Questionnaire for Computer Programming with Scratch" was applied at the end of the study.

According to the results of the study, it was determined that, teaching of programming with Scratch had a positive influence on computational thinking skills of MDS students and that it was effective particularly in sub-dimensions of critical thinking and algorithmic thinking. Students stated that they most of the time realized the skills required by computational thinking in sub-dimensions of critical thinking and problem solving skills; always in creativity and cooperativity sub-dimensions and sometimes in sub-dimension of algorithmic thinking. There are similar findings in the literature. In their experimental study, Wong and Cheung (2018) determined that there is an improvement in students' creative thinking, critical thinking and problem solving skills as a result of the study. Likewise Yünkül, Durak, Çankaya and Mısırlı (2017) found out that use of Scratch has a significant influence on problem solving,

algorithmic thinking and creative thinking skills. There are other studies with similar results in literature, too (Deveci Topal, Çoban Budak and Geçer, 2017; Korkmaz, Çakır, Özden, Oluk and Sarioğlu, 2015; Shin and Park, 2014; Durak, 2018). Çatlak, Tekdal and Baz (2015) stated that Scratch software is effective in programming teaching and more understandable.

In addition, it has been determined that students have a positive perception for Scratch software in general specifically in sub-dimensions of perceived usefulness, motivation and ease of use, particularly those who frequently use the Scratch program during and out of course time have more positive perception levels than those who use less or do not use it. Some researches in the literature support this result. Yükseltürk and Altıok (2017) found that perceptions for motivation, usefulness and ease of use related to programming with Scratch were positive. Likewise Hwang, Mun and Park (2016) stated that students' perceptions improved with programming and computational thinking in the science lesson taught with scratch. Furthermore, in another study they conducted with computer department students, they determined that Scratch software influenced students' attitudes towards programming positively (Yükseltürk and Altıok, 2016). There is evidence that starting programming courses with Scratch software, which is essentially based on game theme, has a positive effect on variables of interest and motivation for courses (Çatlak, Tekdal and Baz, 2015).

Another finding obtained from this research; the students who use the scratch program frequently have more positive perceptions and more computational thinking skills about computer programming with Scratch. Korucu and Taşdöndüren (2019) stated that students who use scratch program in except of the course have more positive self-efficacy perceptions than those who do not. Saritepeci (2017) found that those who have more computer usage time have higher computational thinking skills than those who use less.

It can be said that there is a middle-level positive and significant relationship between algorithmic thinking with usefulness and motivation; between cooperativity with usefulness and motivation; between critical thinking with usefulness and ease of use and they influence each other. Similar findings have been found in the literature. Oluk and Korkmaz (2016) identified a positive relationship between students' programming skills and computational thinking skills in a study they conducted with secondary school students. Besides, Sáez-López, Román-González and Vázquez-Cano (2016), stated that, in a project-based course with Scratch, students' motivation, enthusiasm, fun and commitment were reflected in their computational thinking skills; this approach was useful and provided active learning.

As a result, it can be concluded that students' computational thinking skills have become more positive and they have positive perceptions for computer programming with Scratch after teaching of programming language with Scratch. It can also be said that there is a

positive relationship between students' algorithmic and critical thinking and their perceptions for computer programming with Scratch. The literature has recently started to work on computational thinking skills of healthcare professionals and limited number of studies has been conducted. The findings of this study can be a guide for the studies to be done to provide healthcare workers with these skills that can be effective in solving their problems. The results obtained here indicate students' own perceptions. Therefore, it will be more appropriate to measure students' computational thinking skills with empirical and reliable-valid success tests. In particular, different software can be used to develop algorithmic thinking, critical thinking and problem solving skills, training can be given for a longer period of time, and it can increase the ability to work cooperatively. It may also be possible to investigate the relationship between scores obtained through computational thinking skills and academic achievement of students. Experimental studies to be done in different departments can enable to research the effect of teaching of programming with Scratch on computational thinking skills in the future research.

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## **CHAPTER 7**

### **IN THE GALES OF A MAN’S WORLD: PROBLEMS OF WOMAN SEAFARERS CONFRONT ON BOARD**

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## **INTRODUCTION**

This study is based on hardships of being a woman employed on board Turkish Merchant Fleet focusing on their experiences on board. The study mainly covers some aspects mostly discrimination issues relating to being a woman on board in particular related to the working and living conditions and employment rights.

It is intended to focus on exposing to sexual harassment, unquivalent working conditions on board together with interviews and questionnaire's results about experiences of women seafarers also covering education period. The survey is conducted for the Turkish Merchant Fleet.

Some solutions and proposal are produced based on the field study and result of this survey.

### **A male-dominated sector**

The maritime sector traditional and male-dominated and there is no exception to this trend, in the near future. In the twentieth century, particularly since the 1970s, more women have started to participate in labour markets of maritime sector that dominated by men for centuries. As a result of this situation the shipping industry became increasingly aware of women as a potential source of labour.

The number of women seafarers has increased in the world and also in Turkey. As a result of this research more women are becoming valuable members of ship's crew nowadays. In support of that some of the institutionalized company perspectives development show in a

possitive way.

Although the number of women seafarers is increasing, the problems that women confront on board aren't defined in Turkey yet, even women do not face and report their problem because of our culture's tabboos which accuses woman when a problem occured because of gender.

However the problems are not clearly defined, according to some researches "mobbing, sexual harrasment, gender discrimination" in various ways are more common than expected.

There is another case; if a woman seafarer reports her problem the way that would be followed by the authorization is undetermined and to be lefted to discretion of the superiors.

There is a cultural problem (may be called as a common attitude) throughout the world also in Turkey; "Women cannot be seafarer!" or "Women can do this job like a men!" It is strongly believed that this kind of taoughts could be changed with the scientific studies.

Altough there are many cultural barriers, at the present day, women are proving they can achieve seafaring jobs at all level against all the obstacles. Consequently, woman sefarers' problems may be solved in conjuction with male colleagues in the maritime sector if they accept women as equal individuals and employers who deployed on board.

### **Woman Seafarers**

Women have been on board since 14. century in different positions with various purposes although being confronted with tabboos. It

could be reasonable because it was difficult to work onboard due to low quality of life standards and hard working conditions.

End of the year 1800, the first woman officer was in the United States Navy. Women started working on board as an enterprise in the beginning of the 1900s on a passenger ship as the nurse, caring for children, has been with tasks such as laundry, we know as “social gender based roles”.

The women workers at sea are still too rare in the world. The percentage of woman seafarers is estimated only 2 %in the world by ITF. Female seafarers work generally in the cruise and ferries sector. The women are confronting prejudice and but becoming valuable members of ships' crew.

ITF (2017) reports that women are deployed among the worst paid and least protected of jobs at sea. Women also tend to be younger, and fewer are officers than their male crew mates. Their low number means that women can be subject to discrimination and harassment. The maritime unions are alert to these dangers and strive to protect the interests of women members – who now number about 23,000 worldwide.

Women can face discrimination even getting into seafaring work. In some countries, for example, maritime education and training institutions are not allowed to recruit women to nautical courses. Women tend to enrol on navigation rather than engineering courses. Even once trained, they may have to face prejudice from ship owners who won't employ women.

Once employed, women seafarers may also face lower pay even though they are doing work equivalent to that of male colleagues. Women may also be denied the facilities or equipment available to male workers, which are a form of discrimination (ITF, 2017).

On average, according to an ILO Report from 2001, women accounted for about 7.6 per cent of the total seafaring labour force in EU ships; Swedish women seafarers (3,518) outnumber those from the other countries, with Danish women (1,478) and British women (1,463) following closely behind. Swedish women also outnumber other countries in terms of their percentage of the national total of seafarers. The proportion of women seafarers in Belgium (4.4 per cent), Germany (5.3 per cent), and the United Kingdom (4.7 per cent) are low (Dragomir et al, 2016).

The highest employment rate for woman seafarers is in the United Kingdom; 7 percent of the officers and 21 per cent of the ratings are female. Deck and engine UK ratings in 2013 had a similar split to deck and engine UK officers. Men accounted for 99 per cent of deck ratings and nearly 100 per cent of engine ratings. The catering/other category of UK ratings had the highest proportion of women at 36 per cent (Department for Transport, 2014).

According to data from the year 2018, Turkey ranked the fifteenth in the world maritime, 8,034 under national flag (633 ships) under other flags 19 207 Million DWT (889 ships); total 27, 241 Million DWT and 1522 ships (UNCTAD, 2018).

Although e-Maritime Database of Ministry of Transportation, Maritime Affairs and Communications (MoTMAC) of Turkey (e-Maritime Database, 2013) the number of woman seafarers is 2245. In according to last information provided 3500 women seafarers are registered in Turkey (Aşkın, 2016) When a study carried out by Yılmaz et al (2016), the total number of seafarers registered in Turkish Seafarers' Registry is 178,134 and 2246 of them are female seafarers. 45677 of them are the officers and 132,457 of them are ratings. However, the numbers of active employees are 36,254 as officers and 83,316 as ratings. In according to data provided by Ministry of Transportation, Maritime Affairs and Communications of Turkey, the number of the unlimited officers is 12,493 (8364 Deck- 4129 Marine Engineer), and limited officers 10,669 (5898 Deck- 4771 Marine Engineer), total 23,162 as of January 2018. There is a conspicuous change between these new figures (23,162) and previous figures (36,254).

## **1. RESEARCH METHOD**

The aim of this study is to define hardships of being a woman employed on board Turkish Merchant Fleet focusing on their experiences on board. The study mainly covers some aspects mostly discrimination issues relating to being a woman on board in particular related to the working and living conditions and employment rights. The main research problem will be to define the major problem areas with some proposal under the changing status and conditions of woman seafarers.

The study commences with the literature review which is based on broad range of empirical research made earlier. Then continues summary of new improvements on deployment of females on board in the developed countries it is intended to make an evaluation on the impacts of the changing minds maritime sector. The study is supported by interviews made with woman seafarers in the maritime sector and, a survey applied to the female seafarers in Turkey. As a result of this evaluation based on results of interviews and survey some proposal are to be introduced to all related parties of maritime sector.

## **2. RESEARCH**

### **a. General**

After 1960s a revolution of women in the attitude and perspective is observed. This led them to work together with men as well as the technology has provided positive developments in working conditions to enable women to work in difficult jobs which has been considered as men's work. The shorten voyage times; construction of seaworthy ships, improved living conditions and increased earnings at sea is facilitated working of women at sea. Various plans and programmes of international organizations supporting human rights in recent years allowed women to work many other work sectors in particular IMO's efforts for woman seafarer eased their participation in the maritime sector.

## **b. Legal Aspects:**

Major international instruments to protect woman rights are introduced below.

### ***Universal Declaration of Human Rights (1948), (UDHR):***

The preamble to the Universal Declaration of Human Rights states that “recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world.”

Article 1 of the Universal Declaration proclaims that “all human beings are born free and equal in dignity and rights”.

Article 2: “everyone is entitled to all the rights and freedoms set forth in this Declaration without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty.”

Article 7: “all are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination.”

***International Covenant on Economic, Social and Cultural Rights (1966), (ICESCR):***

Article 2(2): the parties undertake “to guarantee that the rights enunciated in the present Covenant will be exercised without discrimination of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status”.

Article 3 “to ensure the equal right of men and women to the enjoyment of all economic, social and cultural rights set forth in the present Covenant”.

***Convention on the Elimination of all Forms of Discrimination against Women (1979), (CEDAW)***

Article 1: Convention defines discrimination against women as “any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field”.

CEDAW meant that women’s rights were expressly placed in the ambit of international human rights, but the rights of women were still ignored by the mainstream human rights mechanisms. One problem after CEDAW is that the monitoring bodies of the other human rights treaties do not solve violations of women’s rights and leave these

issues up to the specialised CEDAW Committee to deal with and the adoption of the CEDAW has therefore led to the marginalisation of human rights of women. So, the criticism is that the mainstream human rights instruments do not pay attention to women's rights (Van Leeuwen, 2009).

The European Court of Human Rights consider article 14 is violated “when States treat differently persons in analogous situations without providing an objective and reasonable justification”, it now also considers “that this is not the only facet of the prohibition of discrimination in Article 14” and that “the right not to be discriminated against in the enjoyment of the rights guaranteed under the Convention is also violated when States without objective and reasonable justification fail to treat differently persons whose situations are significantly different” (European Court of Human Rights, 2000).

Maritime Labor Convention (MLC 2006) covers approximately all aspects to stop or refrain all types of discrimination and convention is very keen on gender discrimination.

If we make a general assessment on current the legal status of women, the legislative tools and process for women seafers are prepared to a positive environment them. But still there are strong barriers for them on application of these rules and regulations.

### **c. Major Problem Areas**

The general issues affecting all working women can be considered within the scope of the work permit in marriage and maternity, sexual assault, sexual harassment, discrimination, career development.

Turkey under this title, civil and criminal law in the context of changes in terms of legal breakthrough was made, in practice the development of social structure and current blocking ideas to make generalizations because of the level of success in right to development from a legal angle to create an environment that allows.

Under the terms of the Turkish Penal Code, in case of sexual harassment “up to 3 years imprisonment for the punishment and compensation” is advised. But it is not easy to procure such a court order and takes a long period to have it.

There is no reference to gender discrimination in the Turkish Commercial Law (Maritime Trade section) which also regulates shipping activities, Law for the Mission of and Organization of the Ministry of Transportation, Maritime Affairs and Communications (Presidential Decree No: 655) and Seafarers Regulations.

A study made in the Turkish Maritime Education Centre to understand the problem areas related to Woman seafarers. The research subject was “What are the factors that may interfere women's work at sea?” 85% of the responds on the question was covering "physical deficiency" and 7% "family responsibility". According to the researches “the difference between power of the man and women is

only %20, so “physical deficiency of woman” should not be accepted as a valuable fact but just an opinion.

In fact the job at sea is not an exactly suitable profession for "we do a career and children" needs to be worked on.. In this context, women seafarers should make career plans at the beginning of the profession, considering transition between land and sea to enable them to adjust their time at sea and change of their social life.

In 2006, Maritime Labour Convention has been come to be in force. Turkey accepted .MLC in 2018 but it still does not reflected into its national legislation. The most Turkish ships are operating outside of Turkey and making port calls to the country who accepted MLC. The nonconformities with MLC applications on board Turkish flag ships will be likely a major problem for the status of White Flag in the near future. Full application of MLC on personnel working conditions and human-like manner employment will create a significant positive effect on protection of women seafarers’ rights.

There is a strong need for preparation of legal documents to regulate the life on board both for males and females, especially to provid a safe working environment for women maritime administration and powerfull international non-govermental organizations should enforce maritime sector to apply these regulations.

#### **d. Experiences of Women Seafarers**

To fully understand the issues related the employment of women seafarers it is necessary to reach women seafarers directly using different research methods. In order to achieve that;

- Six women seafarers are participated in focus group discussions. These women were from different countries and ranging of a range of nationalities and in ranks ranging from cadet to captain/chief engineer. This group has prepared interview questions and questionnaires of the survey.
- Structured interviews is conducted participation of 30 women working in the maritime world.

This interviews and survey are conucted by four woman cadets who prepares their graduation research led by the author of this article. The woman cadets with sea experience are deployed for this research to create an intimate environment and keeping the privacy of participants.

Female seafarers are generally whispering their difficulties but not vocalazing. Main areas concerned are sexual harassment, difficulties in finding a company to make their sea traing as cadet and not equal opportunities for promotion.

##### **(1) Interviews**

Interviews were conducted with 30 woman sefarers (2 shipmaster, 4 chief engineers, 9 1<sup>st</sup> Officer/deck officers, 8 2<sup>nd</sup> Enginner/ Marine Engineers, 6 deck /marine engineer cadets, 1 Naval Architect and Marine Engineer). One of them is the first woman marine engineer

graduated from academy in Turkey, one of them is the first marine engineer who left the service due to hard work conditions, and one of them has started as marine engineer but later changed the profession as marine architect.

In this part significant expressions and related findings from the interviews with participants is introduced.

### ***(a) Significant issues***

#### *Difficulties met at Sea*

Women seafarers expressed the difficulties during their sea duties starting from cadet times. There were many barriers they met from the school period but they have lifted these barriers gradually when they go forward in their career. Sexual harassment and abuse have been reported during their service period but some of them were not exactly clear. Some gender inequalities are reported for promotion.

#### *Behaviour of the shipping companies*

The women seafarers reported difficulties in finding companies willing to let them sail as cadets on their vessels to complete their training, even as an officer. Companies are generally not willing to deploy females as Captain or Chief Engineer.

#### *Relations with male colleagues*

After 21<sup>st</sup> century only a small number of male seafarers who sometimes showed resistance accepting women in maritime sector. But still there are prejudices/beliefs concerning that women could

not perform the tasks of a seafarer. This is a conservative attitude which suffers the women to show their performance at work. In some cases even a innocent saying like “Oh you are perfectly doing this hard job”, “You proved that you are able to do what the men donly” may agitate woman seafarers.

*Woman officer should work harder than man:*

Many women seafare believe that they had to work much harder and perform their duties better than their male seafarers to show their ability and capacity. This competition may also create a negative impact for female seafarers’ moral.

*Being a woman between too many men:*

Due to the small number of women working at sea, there are one or two female seafarers on board same ship. It is very difficult for a woman to acquire a social environment for herself on a ship with around twenty men. For this reason, female seafarer feels a serious loneliness, especially when they first join the duty. If there are two female sailors on board, they can establish friendship among themselves and relieve their loneliness to some extent.

At first glance, it can be said that the same situation exists for other occupational groups, but this environment is only valid for working hours. In ship life, this union lasts 24 hours and days.

Women who have difficulty in establishing a friend group put themselves completely into their jobs, which leads to psychological problems.

The loneliness of the women working on the ship is an important problem within the first six months after joining their duty, but then they also adapt to the ship living conditions.

*Sexual harassment is existing and majority of them comes from superiors:*

Many seafarers report experiencing sexual harassment problems.

Especially in organizations with a tight hierarchy, sexual abuse is frequently encountered. It is common for people in supervisory positions to attempt sexual abuse by using their status.

In fact, it has not been determined exactly what the sexual harassment is. While sometimes unintentional simple contact or a common slang word is considered sexual harassment, much more dangerous approaches can be ignored.

Many women think that they are constantly being watched for sexual purposes on the ship, and even their cabins are being observed by foreign eyes. In fact, voyeurism is not possible on board. However, even thinking that to be observed disturbs women.

Sexual harassment and abuse claims is mostly reported on passenger ships due to huge number of mixed crew, traveler in different character and social activities on board.

It is very rare for women working in the cargo ships due to strict rules and policies for sexual abuse and harassment as well as subsequent protection provided by companies and ship administration.

*Isolation and the reasons on board:*

In the rigidly hierarchical and isolated environment of the ship such behaviours could be particularly difficult for the women. Some female seafarers are hesitant to even innocent offers to eat and have fun together in a bar, fearing that sexual harassment may come out. This situation restricts women to establish social relations with other crew members.

Women are taking measures to protect themselves against harassment and abuse. In general, women avoid sitting in the dining halls, do not go to the places where the crew go collectively in the ports, lock their cabins during the night and even not having make up to refrain their female appearance.

*The woman seafarers show more enthusiasm and determination:*

Working in an environment where men are concentrated and their movements are more restricted than other staff, women put themselves into work and work much harder to prove that they are equivalent to men. In addition, women seafarers want to destroy the myth that “Seafaring is a job only men can do”.

*Many woman officers are looking for a suitable job at shore:*

Many women who are successful in the profession continue to work at sea until they reach the top rank. However, those who have difficulty in resisting the harsh conditions of sea life try to find a suitable task for them as soon as possible. Those who find a job at shore, suitable

for their abilities and skills cannot show any hesitation about leaving the sea.

**(b) Findings to be noted**

The women seafarers believe that they should work much harder to prove their capability. They also stated that sexual abusment is something inevitable on board.

Managemet level are reluctant for harrasmant and abuses and they advise woman officer to bear it or find a solution by herself.

There is a rigid hierarchical system on board the ships. The ship has an isolated environment. Such a hard situation seriously affects woman seafarers in a negative manner. Comparing with the males, iti is very hard for femals to strike up their social ambiance on board.

To be a woman in the men's worl is full of hardship. So, most of woman seafarers are planning to leave for a shore duty as sson as possible

There is a strong solidarity among female sefarers in particular for marine engineers. It is an enviable behaviour and should be regarded as an important issue to promote the status of female seafarers.

Female seafarers should work moreharder than men to be succesful.

Female seafarers are vulnerabil and they should understandthis situation whn they assume their responsibilities.

Female sefarers should made investment to ensure their future.

There is no problem at the school phase. The problem starts when you step up the gangway.

Managers in the shipping sector should not allow gender discrimination. This is the only way to solve the problems of female seafarers.

Yes, it is a challenge to work at sea as a woman.

### **3. DISCUSSIONS**

#### **a. Discussion on the Results of Interviews**

Based on the interviews made with female seafarers, the following issues are found;

##### **1) Feeling of loneliness**

The numbers of women seafarers working on board a ship generally changes between one or two. These women who work between a huge group of males generally feel themselves alone due to lack of any other female to establish contact. This situation is unbearable after long duration at sea and creates an interesting psychological situation for them.

##### **2) Feeling of astuteness**

As a population that we are a minority on board. In order to prove ourselves against men we should make less mistakes. We must be patient and make our minds as clear as it can be. Otherwise, as women getting into the marine sector subsequently will not be able to destroy prejudice of community. They think of that this profession is not

appropriate for women. We must not be weak against the difficulties and events on board.

### 3) Marriage and Unity of Family

Marriage is quite difficult for women working on board. They can be pretty successful when they get married mariners, in reverse, it is difficult to get marry, or they get marry at later ages. The pairs who come from same profession and understand each other can be more successful. Family is the holiest concert of the society. The only thing contributes this concert to last is the unity. As women mariners, it is a great advantage to be married to another mariner. In reverse, it is a great difficulty and a disadvantage. Being away from their husband, parents, and relatives takes them to pessimism.

### 4) Breaking taboos in man- dominated society

To destroy a myth we must prove it at first. Since the women are weaker than men as physically, they are thought to be unsuccessful at sea. To destroy this prejudice we must be patient, determined, idealist and we must not make the mistakes that men do. Also the difference between man power and women power is not only related with gender. According to some researches, the power difference between man and women is only 20% so this is not a valuable thesis that women are not strong enough to work on board in 21st century that we run our ships with automation.

### 5) Maritime Sector Should Support Women at Sea

The women seafarers that are having some difficulties at sea training. In this stage to be defended by society and encouraged is very important for the aspect of proving ourselves.

### 6) Equality

Women are not given the same opportunities as men are. We do not have same rights. For instance, while men changes. This situation affects women negatively. We should change this mentality.

### 7) Verbal harassment

They are not in trouble with our colleagues as verbal harassment. But in same environment with huge population of male we may come across with behaviours not proper for us.

### 8) Special conditions; pregnancy

Most of women are not employed due to the risk of pregnancy or they are demanded to sign a contract not to be pregnant. However, women do not consider benefitting from these private aspects and exceptions. Until a certain period, they continue to execute their profession.

### 9) Mobbing from superiors not from subordinates and colleague

Although mobbing is expected from people less educated, if is done by managers who cannot stand women as successful seafarers. They try to make women tired and cause them to escape by giving up their duties.

#### 10) Common opinion less mechanical perception of females

It is thought that the mechanical perception is low for women. It is not difficult to understand it comes from childhood. For instance while sons are playing with car, daughters are playing with dolls. Mechanical perception is something that just occurs with the effect of parents.

#### 11) Visual harassment

Some kind of women can not prevent them from verbal harassment, because of men that implies harassment think that this is their option, their right.

#### 12) Using too many words for example obscene language, strong language

In the point that they can not express themselves, men use obscene language, besides educated people look for solutions for problems by expressing themselves. Non- educated people believes that they can solve their problems with obscene language to express themselves.

#### 13) Contestation with men prove herself with men's language that "she can do as much as men".

Most of women have to work harder than men to be accepted and to prove themselves. They have to make much more effort to get place as their right.

14) No problems in education as confronted as on board

Women are not in trouble and not getting difficulties as serious as confronted on board because while studying at school students help each other but on board a challenge about profession is always current.

15) Option to have family life

It is difficult to end the work and make a family for a female mariner. Despite all these difficulties, they must keep the balance and execute their professions.

## **b. Survey on Mobbing and Sexual Harrassment to Female Seafarers onboard**

### **(1) Aim of the survey**

The aim of the survey is to reach valuable evidences to demonstrate the real situation, how common and serious and, provide a source for the other studies that might be done about the same topic

In this part it is intended to define mobbing and sexual harrassment issues that female confront on board Turkish Merchant Ships. The other problems determined in this study has substancial evidences but to define main issues about sexual harrasment and mobbing on board Turkish Merchant Ships, there is no any source.

### **(2) Objectives of the survey**

1. To define the ratio of sexual harrassment and mobbing on board to female seafarers

- 1.1. To define if having a greater rank is an encouraging matter to imply sexual harrasment and if women think the same with us about the effect of rank to sexual harrasment
- 1.2. To define which ways are the most common to imply sexual harrassment and mobbing
- 1.3. To define which ways are followed to overcome sexual harrassment and mobbing
2. To define if women are satisfied by the ways followed to overcome such events.
3. How does mobbing and sexual harrassment affect women's psychology
4. To define if sexual harrasment is more common while conducting in social life
  - 4.1. To define how often women confront with mobbing on board
  - 4.2. To define the ratio of women have knowledge about "the word mobbing"
5. To define how often women confront with mobbing on board4

### **(3) Hypothesis**

Hypotesis is prepared based on the objectives. Questionaaire is based on hypotheses.

#### **(4) Target Groups and Percentage of the Responders to Questionnaire**

69-woman officers/cadets were responded to questionnaires. The status of participants; %2.9 Captain, %32.4: Officer, %64.7: Cadets

#### **(5) Analysis of Responds**

##### ***Part 1-Sexual Harrassment Analyses***

##### ***1) Have you ever confronted with any form of sexual harrassment by your colleagues?***

82.4% of the women are confronted with sexual harrassment.

17.6% of the women are not.

***General majority of women are confronted with sexual harrasment on board.***

##### ***2) If you have confronted, which type***

60.7% of the women are confronted with verbal sexual harrasment.

17.9% of the women are confronted with physical sexual harrasment.

60.7% of the women are confronted with sexual harrasment which is covered, as implying sexual meanings.

***Verbal and physical harrasment is more commen than physical harrasment.***

##### ***3) What was the rank of the person who has confronted with harrasment?***

78.1% of the person implied sexual harrasment is superior  
6.3% of the person implied sexual harrasment is subordinates  
4.4% of the person implied sexual harrasment is colleague

***Generally, sexual harrasment is implied by superiors.***

***4) Do you think having a greater rank is an encouraging effect to do sexual harrassment?***

85.3% of the women think it is an encouraging effect to do sexual harrassment

14.7% of the women think it is not an encouraging effect to do sexual harrassment

***Having a greater rank is an encouraging effect to do sexual harrassment.***

***5) How did you overcome such a behavior?***

56.3% of women choose being silent

37.5% of the women tells their family to overcome.

31.3% of the women say” I couldn’t overcome”

43.8% of the women choose making a report to the Captain

6.3%of the women reports to crew agency

3.1%of the women choose other ways to overcome.

***Generally, women keep their silence when they confront with sexual harrassment.***

***6) Are you satisfied because of the way followed to overcome?***

0.0% of the women are never satisfied by the way followed to overcome sexual harassment.

65.6% of the women are sometimes satisfied by the way followed to overcome sexual harassment.

34.4% of the women are never satisfied by the way followed to overcome sexual harassment.

*Woman has never been satisfied with the way followed.*

### **7) How does it affect you?**

59.4% of the women felt humiliated, I lost her self-confidence

6.3% of the women put a blame on herself

75.0% of the women's performance at work reduced due to working in a such disturbing place

56.3% of the women's expectations about career reduced due to being a female on board, gender.

15.6% of the women felt so humiliated that they could commit suicide at any moment

21.9% of the women says "It did not affect them deeply, thinking that they could face such a behaviour while working on board"

*Women are affected from sexual harassment deeply that causes unrepairable damages to their psychology and career.*

8) The sexual harrasment is more common;

18.8%of the women said that “On board”

84.4%of the women said that “While conducting social life”

*The sexual harrasment is more common while conducting in social life.But 18.8 of the women answered as it is more common on board.*

## **Part 2: Mobbing Analyses**

*1) Have you ever confronted mobbing related these kinds of actions;*

55.6% selected that; People laugh to you while there is no valuable reason that you know

44.4% selected that; you feel that they are talking about you when you are not at the same place.

22.2% selected that; their looks disturbs you

55.6% selected that; your colleagues do not trust the work you have done.

94.4%selected that ; Your responsibilities/duties are as easy as it can be,so that they passivated you and affect your self-confidence,performance

56.6% selected that; You feel that they are happy when you confront with a trouble

5.6% selected that; You feel that your duties are really difficult to disincline you about the work

38.9% selected that; You feel you are worthless and ineffective because of the behaviors underway against you

***The least of the participants have chosen that the duties are really difficult to discipline you about the work, this situation might give a change to prove your abilities but it is done to only 5.6% of the participants. The common way followed while assigning women is to passivate them.***

***2) How often such an event you confront?***

44.4% selected that; Everyday, more than once

11.1% selected that; Everyday

44.4% selected that; Sometimes

0.0% selected that, Rarely

0.0% selected that; Never

***All of the participants are confronted with mobbing frequently so that the situation is really serious than we imagined.***

**3) Have you ever heard about the word “mobbing” before?**

38.9% selected that; yes

66.7% selected that; no

***The term “mobbing” is not known although all the participants are faced with.***

***4) What kind of mobbing do you confront more frequently?***

88.9% answered as; In dialogs, covered(implying)

22.2% answered as; In dialogs, distinctly

50.0% answered as; Discrimination while assigning certain roles

72.2% answered as; According to the groups behaviors; making gossip about you/externalizing you/laughing sarcastically

39.8% answered as; Just feeling that you are segregated from the group because of your distinctions

*Various types of mobbing is confronted on board by woman but the most usual one is to in dialogs implying, so that women do not have any proof to report. Second most common way to do mobbing is done as group reactions.*

**5) How did you overcome mobbing when you confront or could you overcome?**

55.6% answered as; Being silent

16.7% answered as; I quit the job

44.4% answered as; I couldn't overcome

56.6% answered as; Making a report to the Captain

11.1% answered as; Reporting to crew agency

5.6% answered as; Other

*In the mobbing events that women seafarers experienced 56.6% of the women have chosen to be silent. On the other hand %56.6 of the mobbing events are tried to be eliminated with reporting to the Captain.*

**6). Are you satisfied because of the way followed to overcome?**

0.0% answered as; Always

61.1% answered as; Sometimes

38.9% answered as; Never

***The way followed to overcome does not satisfy women.***

***7) Do you think mobbing is more frequent than sexual harrasment?***

100.0% answered as; Yes

0.0% answered as; No

***Mobbing is more frequent than sexual harrasment on board.***

***8) What is the rank of the persons that mobs you generally?***

66.7% answered as; Superior

44.4% answered as; Collague

50.0% answered as; Subordinate

***Mobbing is generally done by the superiors on board.***

***9) How does mobbing affect you when you face to?***

55.6% answered as; I felt humiliated,I lost my self-confidence

11.0% answered as; I put a blame on my self

77.8% answered as; My performance at work reduced due to working in a such disturbing area

72.2% answered as; My expectations about my career reduced due to my gender

11.1% answered as; I do not believe in me,my potential,I feel worthless

11.1% answered as; It does not affect me deeply,thinking that I could face such an behaviour while working on board

22.2% answered as; I felt so humiliated that I could committe suicide at any moment

*Mobbing causes serious damages on women seafarers' psychology and career.*

#### **4. CONCLUSION**

The number of women participating in the maritime industry is significantly smaller than men. Women are mostly working in commercial, hospitality and catering sectors of the industry and are quite rare in high officer ranks. The duration of working at sea varies by sectors, those women who worked their way to the officer ranks usually have longer career at sea but some prefer to resign from ships and work in the marine industry ashore.

The main problems that women seafarers encounter on board of ships are discrimination, harassment and hard to work as non-equivalent opportunities. These problems are common for any industry and any job, but it is harder to deal with it when women are isolated on board of the ship. In this study, the analyses proved that how serious is the situation concerning mobbing and sexual harassment and also these are the biggest obstacles for women to employ on board. Most of the participant women seafarers have chosen to be silent and the ways followed to overcome does not satisfy the women because the problems are not specified clearly in legal ways and the solutions are left to discretion of the supervisors and the mobbers and the ones who imply sexual harassment are mostly the supervisors.

There is a strong need for preparation of legal documents to regulate the life on board both for males and females, especially to provide a safe working environment for women maritime administration and

powerfull international non-govermental organizations should enforce maritime sector to apply these regulations.

Maritime industry is not acting so eagerly to deploy women seafarers. Companies that do not recruit women are very often negative about female staff on board of their ships. Male crew members that have little or no experience of working with female staff tend to be negative or prejudice about women seafarers. However, those companies that are employing women are highly positive about the experience and pleased with quality of work, determination of female staff and more balanced on board environment providing all positive effects of diversity.

Companies with high profile on sexual harassment policies and applications have less sexual harassment incidents and more confident staff. Despite difficulties and problems that women face on board of the ships, they are generally positive about seafaring experience. However, it is clear that some improvements in conditions of women employment have to be done.

Here are recommendations to solve some of the problems and improve working and living conditions of women at sea.

- To eliminate employees' confusion about their rights and policies, companies could implement induction trainings for all staff regarding on – discrimination, equal opportunities and sexual harassment policies.

- Companies should develop improved approach for seafaring sector regarding maternity rights and benefits.
- The positive experience of those companies employing women has to be promoted to other companies in order to increase women employment and change perception of women seafarers.
- Sexual harassment and mobbing policies should be specific for on board environment.
- Women should not provoke their male colleagues by their manners and attitude.
- To lessen women difficulties on board companies where it is possible could employ more than one woman on board of a ship.
- Companies should actively promote seafaring as possible career opportunity for young females.
- MLC 2006 should be accepted and internationally recognized standards should be fully applied by maritime administration.

These steps could benefit for the marine industry by encouraging talented women to start their career at sea. There are enough examples of exceptionally professional and determined women in this industry that proves women ability to fulfil this job. It is evident that men and women can work together and should not compete each other but complement each others work.

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## **CHAPTER 8**

### **THE RELATIONSHIP BETWEEN STRATEGIC PLANNING AND CUSTOMER SERVICE QUALITY IMPROVEMENT; FIELD STUDY ON THE QUALITY OF SERVICE IN THE WATER SECTOR – COASTAL MUNICIPALITIES WATER UTILITY – GAZA GOVERNORATES**

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## **INTRODUCTION**

Contemporary trends in management indicates that numerous businesses enterprises, which are successful in their operations and activities, are constantly struggling to build a distinctive strategic center that ensures them to build, grow and improve performance in the environment in which they operate, to achieve these goals, the organizations are required to have a long-term vision. Therefore, the future-thinking process of the institution and the study of environmental variables, which affect its operations and analysis, are at the heart of the strategic planning process.

The accelerated change has become one of the most important features of our age and its realities. Today, the world has become a small village, thanks to the revolution of communications by satellite and advanced communication devices. In today's ever-changing world the communication technology has reduced distances and time, and markets opened with the expansion of the world map, the spread of the marketers, businessmen and investors found the opportunity to invest, and the competition intensified. Some may see luck as the decisive factor in their success or failure, but on the other hand, the professionals are convinced that they can apply the concepts of strategic planning to face competition and achieve success. This is, in particular, the case with the large increase in the size of companies, enterprises and factories, whereby the strategic planning has become inevitable. Strategic planning has been widely used in all types of organizations and activities in the last decade of the twentieth century.

The applied strategic planning experiences have shown that strategically planning institutions outperform their overall performance of satisfaction, functional, and other commitment comparing with institutions that do not plan strategically.

## **1. STRATEGIC PLANNING**

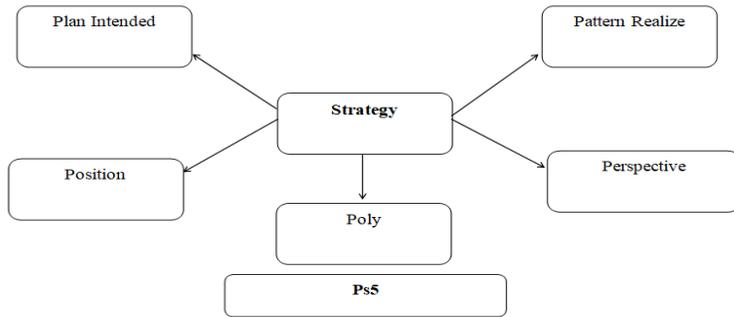
### **1.1. What is Strategy?**

The word strategy has been applied in different disciplines, including the military. It is also used in English language, in the sense of a carefully studied plan accompanied by meticulously selected procedures. The word strategy in the Greek means language is the art of commanding the armies. In this regard, there is a relationship between management and military strategy. Actually, the accuracy of management of military action led to its usage in different fields of study. Thus, the word implies choosing the appropriate means (Hamouda, 2012).

Olsen (2007) considers the strategy to be the specific choice that defines the direction of the company and its relationship to what is happening in the dynamic environment, making the institution more responsive to environmental variables. The strategy is defined as:

Comprehensive approach, based on an understanding of the general context in which it operates, it contains the strength and weakness, and the problem that is trying to address and prevent them, the strategy gives us a framework for action, and explain us what we want to achieve? What is the method that we intend to adopt? But it does not deal with specific activities (Shapira, 2003).

Yasin (2010) believes that the strategy is an expression of management and planning skills, which is the practical means that led to achieving the desired goals. Then, Mintzberg (1998) has developed a model to define the strategy, as in Figure



**Figure 1.** Mintzberg Model for Defining the Strategy (Mintzberg, 1998)

The author believes that the strategy is: an integrated plan to identify the future vision of the institution, and illustrates the objectives, policies and the plan of the institution, according to the current and future needs, and include programs, ingenuity, priorities of implementation and sources of funding.

## 1.2. What is planning?

Ziyara (2009) indicated that modern management in essence aims at the creation and making of the desired change and working within ever-changing world realities. Indeed, managing of the business today is the great burden and because of that, the strategic management is essential for institutions and corporations to find viable solutions within given circumstances and challenges. Therefore, planning is the

process of drawing the goals to be reached within a certain period and then mobilizing the necessary resources to achieve these goals according to methods that clearly determine the costs and maximize the results (Karkhi, 2009). In addition, planning involves setting goals and objectives for the organization and explaining the work and activities required to be implemented. Such planning steps can meet specific purposes and objectives and describe the methods used in the performance of business. Therefore, the planning is the basis of management, and stands for the vital pillars of organization, formation, direction, and control, which works to support the administration and give them meaning and significance (Alaaq, 2008).

Dikson (2009) elaborated the significance of planning in his works by arguing that planning helps avoid the negative effects of any unexpected changes or events, based on the principle that early preparedness helps early warning. This does not mean that planning eliminates or even reduces risks, but makes managers more aware of them. Planning draws the organization's attention to the basic goals it seeks to achieve. Planning helps to reduce the costs of the operations that are carried out by any organization, institution or a company. Planning helps to monitor work performance better as managers have the criteria to measure results on the ground.

### **1.3. Strategic Planning**

Strategic planning is one of the most important modern administrative concepts that in reality determine the future of business enterprises. This concept emerged because of adoption of the business

organizations to open system in management. Furthermore, strategic planning began to be used more frequently because of the global openness, the information revolution, the globalization, and technological progress. These developments made the world a small village in which the institution/company became an entity. The surrounding environment significantly affects the institution/company, and this influence must be reflected in the formulation of strategies that take into consideration ever-changing business environment. In this regard, there should be a consensus and harmony between the resources of the institution and strategies formulated (Shurap, 2011).

The strategic planning seeks to determine the future directions, without limitation in past or present thinking. Thinking of the desire to reach specific objectives and goals start from the inside out, examine the internal and external influences, and deal with issues in a comprehensive manner. These strategic planning processes are an ideal insight for the organization in the future (Wheelen & Hunger, 2008). Actually, the strategic planning is a process that allows the organization and its clients to work together to shape their future, crystallize their priorities and objectives, and identify programs and projects. These processes determine achieving specific goals in line with aspirations, taking into consideration everything that surrounds the internal and external factors. Therefore, strategic planning is an attempt to search for future scenarios and to plan based on the overall objectives of the institution, which helps the institution to make the appropriate decisions and achieve its objectives in the best way,

despite the various conditions and variables that exist in the working environment that affect the activity of the institution.

## **2. SERVICE QUALITY**

Service quality is considered as a major concern for the organization. Its concern is directed towards marketing its services and products, and in achieving efficiency and effectiveness of its operations and activities. Actually, in some institutions, it is a philosophy of management and behavior at all levels. Quality has become the focus of most countries around the world, as a cornerstone of the new management model, which allows it to keep abreast of global developments by adapting to international and local variables. In order to adapt to them, quality depends on the application of advanced management methods, possible levels of practices, processes, results, and services. The service organizations in our world today face many challenges, especially increasing number of service organizations and increasing competition among them. In order to meet these challenges, most service organizations have focused on their services quality and excellence in serving their customers as one of the main approaches to increasing their advantage competitiveness.

### **2.1. The Concept of Quality and Service Quality**

The quality involves an extent of validity of the design of the product for use and the degree of conformity of the product specifications to the planned specifications in terms of the design and customer expectations (Hamouda, 2014). Indeed, it is significant that the quality meets the needs and requirements of customers, with the aim of

continuous development of production processes. The quality should be used to win customer satisfaction, improve the quality of services and production, improve the work performance, and reduce costs, time, and efforts.

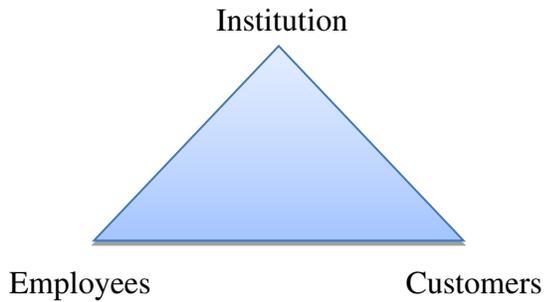
There are many definitions of service quality, because of difference in customer needs, expectations, and the judgment on service quality. Actually, the service quality varies from customer to customer.

Yong (2000) defined service quality as the difference between customer expectations of the service and perceived service. Then, service quality is a measurement of compatibility of the quality provided with customer expectations, providing quality service means that service is consistent with customer expectations. In addition, service quality is the degree of satisfaction that the service can achieve concerning customers satisfaction, wishes, and expectations.

### **3. SERVICE QUALITY AND STRATEGIC PLANNING**

The literature on service quality strongly focuses on motivation, whereby the service quality leads to increase customer satisfaction. Practical evidences support this idea. For instance, the service quality is a factor that affects customer satisfaction in service areas. One of the consequences of customer loyalty is to reduce the impact of price change on the product order as well as lower the costs of attracting new customers because of oral promotion, corporate reputation, and reduced impact of competitors' activities.

In today's competitive environment, all institutions emphasize the importance of customer care and their role in strategic planning. This role is becoming increasingly important in the services sector, whereby the customers are increasingly concerned about the type of organization and service that meets their needs. Therefore, service quality is governed by the standardization of service and the role of service personnel is important in maintaining standard quality (Abu Odeh, 2014). Business organizations focus their efforts on both sides of the pyramid, namely, employees and customers in the relationship chain between the institution, customers, and employees, Figure 3 that illustrates this relationship.



**Figure 2.** The Relationship Chain between the Institution, Customers and Employees (Author's Compilation)

As shown in Figure 2, clearly presented five relationships that are further elaborated in the following:

- The quality of internal services means selection of highly skilled and experienced staff and workers, providing training programs, high quality of an internal work environment and provide staff who is dealing with the customers by the necessary support so after all this it resulting in satisfied and productive staff.
  - Satisfied and productive staff implies providing the means to improve the internal work environment that can bring about the satisfaction and loyalty to the employees of the organization; thus providing high quality services.
  - Valuable services (high quality) contribute towards providing and creating more efficient and effective services, which result in satisfied and loyal customers.
  - Satisfied and loyal customers: When customers receive high quality services, they increase their loyalty to the organization and repeat their transactions which results in increasing profits.
- And,

- Profit and growth in the services of the institution ensures the growth of the profit and a high level of services and distinctly.

## **4. RESEARCH METHODOLOGY**

### **4.1. Hypotheses**

Since strategic planning is a management topic that takes a great deal of attention among researchers around the globe and due to the fact that this issue is not investigated and analyzed in the target market, the purpose of the research study is to examine the relationship between specific variables driving the strategic planning and the level of customer service quality and how to improve it to make the customer more satisfied from the services provided in Gaza Strip. In addition, the possible strategic planning outcomes will be analyzed. In this regard, the following research hypotheses might be proposed:

**H1:** There is a significant and positive relationship between strategic planning and customer service quality improvement.

**H2:** There is a significant and positive relationship between the development of vision, mission, and objectives and customer service quality improvement.

**H3:** There is a significant and positive relationship between analyzing the internal and external environment and customer service quality improvement.

**H4:** There is a significant and positive relationship between developing the strategies and customer service quality improvement.

**H5:** There is a significant and positive relationship between implementing the strategies and customer service quality improvement. And,

**H6:** There is a significant and positive relationship between monitoring and evaluation and customer service quality improvement.

The theoretical framework for the above-mentioned hypotheses is explained in the Literature Review Section besides literature mentioned in the Introduction. The results will provide us with supportive or not supportive evidence of the statement that overall strategic planning widely affects customer service quality improvement to get the best out of customer satisfaction by choosing the best possible service quality. The common perception is that the more customers are satisfied with the services provided, the more the organization is doing a good job because one of the main benefits for the organizations in the future is to make the customer happy and satisfied from the service provided to them to get a good reputation among people. Another key for thinking and evaluating is whether an organization should adopt different strategic plans in different situations, or stay consistent due to the fact that businesses are changing quickly and new challenges occur very often.

## 4.2. Methodology and Analysis of the Survey (Author's compilation)

Table 1 shows the summary table of the questionnaire applied to the participants.

**Table 1.** Methodology and Analysis of the Survey

Type of research	Quantitative
Sampling method	Cluster sampling (130 respondents)
Instrument Used	Questionnaire
Independent Variable	Strategic Planning (The development of vision, mission and objectives, analyzing the internal and external environment, developing the strategies, implementing the strategies & monitoring and evaluation)
Dependent Variable	Service Quality
Questionnaire answers	Scale (1 – 10) , the closer the answer from 10 indicates the high approval of what is stated in the question concerned, each measurement has a relative weight of 10%
Analysis tools	XLStat (Excel statistical add-in software), SPSS (Statistical package for social sciences)
Analysis steps	Validity, Reliability, Descriptive statistics, Testing hypotheses (regression)

## **5. DATA ANALYSIS**

In this chapter, we present the data analysis and test hypotheses of the study by answering the study questions, reviewing the most prominent results of the questionnaire reached by analyzing the questions and dimensions and to identify the personal variables of the respondents. The Statistical Package for the Social Sciences (SPSS) has been used to analyze the data statistically and to obtain the results of the study that were presented and analyzed in this chapter by relying on the appropriate statistical methods.

### **5.1. Descriptive Statistics**

The fundamental purpose of running the descriptive statistics as a part of the entire statistical analysis is to identify the features of the sample by summarizing, organizing and making the sense of the given set of data. In regard to the particular research topic, Frequency analysis is analysis conducted to get the complete and clear picture about the profile of respondents in terms of their demographic and employment characteristics. From both tables (Table 12 and 13) presented in this section, we can see that the number of participants included in the survey amounts to 135 with all answers completely done and taken into consideration. Table 12 below represents the profile of respondents based on their demographic characteristics. Out of a total number of respondents, 115 (88.5%) of them are males, while females account for 15 (11.5%). In terms of age, (46.2%) participants were 40 years and over, actually 60 of them, followed by 57 participants are between 30 and 40 years old (43.8%) while the other 13 participants

(10%) are less than 30 years old. The third demographic factor included in the questionnaire was related to the highest level of formal education of respondents. In this regard, 7 of the respondents (5.4%) were having diploma (2 years university), the majority of the respondents were employees having bachelor's degree 79 respondents which having (60.8%) of total participants, while 44 employees reported having Postgraduate qualification (doctorate or master's degree) which makes (33.8%) of total number of participants.

**Table 2.** Demographic Characteristics of Respondents. (Author's Compilation)

Category	Participation	Percentage %
Distribution of the Study Sample by Gender		
Male	115	88.5
Female	15	11.5
Total	130	100
Distribution of the Study Sample by Age		
Less than 30 years	13	10
Between 30 and 40 years	57	43.8
40 years and over	60	46.2
Total	130	100
Distribution of the Study Sample by Scientific Qualification		
Diploma	7	5.4
Bachelor's Degree	79	60.8
Postgraduate Qualification	44	33.8
Total	130	100

The Table above describes the profile of respondents in terms of their current employment characteristics. The first employment characteristic refers to the job position they occupy currently, a greater number of employees reported to work at the head of department position, precisely 75 (58%) of them. While 42 (32%) of the participants are working as manager, accompanied by 13 (10%) of the participants are working as deputy director.

**Table 3.** Employments Characteristics of Respondents. (Author’s Compilation)

Category	Participation	Percentage %
Distribution of the Study Sample by Job Title		
Manager	42	32
Deputy Director	13	10
Head of Department	75	58
Total	130	100
Distribution of the Study Sample by Years of Experience		
5 to less than 10 years	36	27.7
10 to less than 15 years	35	26.9
15 years and above	59	45.4
Total	130	100

## 5.2. Correlation

Correlation is the next step in data analysis of the survey and a preceding process for testing the hypotheses by regression. This means we are trying to evaluate and check the hypotheses from the beginning – to actually see how and to what extent statements from the hypotheses are supported by the answers collected. This is

possible to do by regression, but there are few conditions to satisfy in order to validate the regression method. One of these conditions is correlation (e.g. independent variables should not have strong correlation among themselves).

Correlation is pretty suitable method for evaluating groups of items. Correlation tests are generally easy tests in terms of determining how items (dependent and independent) are related. In statistical and mathematical terms, a correlation test gives the value for which dependent variable is moved when independent variable is being changed. On the other side, linear regression gives a straight line between variables, which is artificially fit between these two.

These were some mathematical basics of the method, but when doing an analysis, the most convenient way is to perform tests in proper software. We can do it in Excel, or we can use final statistical package software like SPSS or XLStat. For the purposes of this research, both correlation analysis and regression data will be presented.

The closer the value of  $r$  gets to zero, the greater the variation the data points are around the line of best fit. Correlation is almost always used when you measure both variables. Linear regression is usually used when  $X$  is a variable you manipulate, and when  $X$  effects  $Y$  respectively, without changing the places of variables. For the it is important analysis that returns  $p$ -values. Once again, both methods can be used for calculating significance level values, yet regression is a better causality indicator.

**Table 4.** Correlation Matrix on Variables Scores,  $p < 0.05$ . (Author's compilation)

	SP	DVMO	AIEE	DS	IS	ME	SP
SP	1						
DVMO	0.81	1					
AIEE	0.86	0.82	1				
DS	0.75	0.78	0.81	1			
IS	0.91	0.84	0.76	0.82	1		
ME	0.83	0.86	0.79	0.84	0.89	1	
SQ	<b>0.8</b>	<b>0.72</b>	<b>0.78</b>	<b>0.76</b>	<b>0.75</b>	<b>0.73</b>	<b>1</b>

\* Dependent Variable: Service Quality (SQ), Independent Variables: Strategic Planning (SP); The Development of Vision, Mission and Objectives (DVMO); Analyzing the Internal and External Environment (AIEE); Developing the Strategies (DS); Implementing the Strategies (IS); Monitoring and Evaluation (ME)

Putting it in simple words, correlation analysis is applied to examine the relationships between the variables employed in the research. It is used to analyze the intensity of a relationship between two or more, quantitatively measured variables. If the correlation between variables exists, this tells that when there is a change in the variable, another variable will experience the same change, or if the variables go in the same direction. Based on this, there is a positive and negative correlation. A positive correlation between two variables implies that increase / decrease in one variable will cause an increase / decrease in another variable, while negative correlation is said to exist when an increase in one variable causes a decrease in another variable or vice versa.. Pearson's correlation coefficient is the most commonly used coefficient for measuring the correlation between variables. The correlation coefficient may range from -1 to +1. While -1 refers to the strongest negative correlation, +1 suggests the strongest positive

correlation feasible. Hence, the closer the coefficient to any of the two extremes, the stronger the correlation between variables is. Zero (0) represents no correlation between variables and thus values describe poor correlation. Correlation coefficient does not reflect causality, but rather indicates the intensity of the linear relationship between any two variables (Taylor, 1990).

It is interesting to notice that the relationships between independent and dependent variables Almost all possible relationships record the strong correlation coefficient ( $> 0.5$ ). None of the relationships note a low degree of correlation. Looking at the axes of the strategic planning, it can be seen that all 5 axes positively correlate with the overall employee engagement, meaning that as long as some of these axes increase in the use of the organization, it can be concluded that the overall quality of the service is positively correlated with strategic planning and its axes and affective organizational commitment suggesting that if the level of strategic planning increases, their service quality will follow and the customer will be satisfied as well. By contrast, as the level of service quality increases, the intention to lose the customer gets lower.

### **5.3. Regression**

Prior to final testing by regression, there are several prerequisites that must be present. With an aim to detect the multicollinearity, VIF and tolerance test have been evaluated. Referring Table below, it is evident that not all VIF values exceed the value of 10. Subsequently, all tolerance values are higher than critical values of 0.1 and 0.2.

These results do not show the presence of multicollinearity among independent variables.

**Table 5.** Multicollinearity Statistics of Variables. (Author's compilation)

	<i>The Development of Vision, Mission and Objectives</i>	<i>Analyzing the Internal and External Environment</i>	<i>Developing the Strategies</i>	<i>Implementing the Strategies</i>	<i>Monitoring and Evaluation</i>
<i>Tolerance</i>	0.912	0.859	0.881	0.736	0.762
<i>VIF</i>	1.042	1.061	1.152	1.263	1.113

Regression analysis is an expansion of relationship analysis and is one of the most ordinarily utilized measurable procedures today. Regression Analysis is a set of systematic analytical techniques and procedures that are utilized to all the more likely comprehend the interconnection between observed phenomena, ie. Variables, expressed as gathered information. As a final product, the analysis creates a regression equation; however all the outcomes that occur in this procedure can give important data about the observed phenomena and their environment.

Regression analysis incorporates numerous procedures for modeling and analyzing variables, where the emphasis is put on the relationship between the dependent variable and at least one or more independent variables. More specifically, regression analysis helps to understand how the value of the dependent variable is changed when any independent variable varies, while the remaining independent

variables are fixed. Regression analysis estimates the conditional expectation of the dependent variable with respect to independent variables that is, the average value of the dependent variable when the independent variables are fixed. The targeted estimate is a function of independent variables or a regression function.

In this research study tests that will be used are P-value and 95% Confidence Interval. Findings and results will be expressed through tables containing model summary and coefficients driven through IBM's statistical software SPSS. As announced, regression analysis was applied to confirm the statements about supporting hypotheses. We can notice in Table 10 the regression indicators are at high level. It is a reason more for service quality regression to be certain that strategic planning really do influence customer's service quality.

**Table 6.** Testing Hypotheses by Regression Analysis (Author's Compilation)

MODEL SUMMARY						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	ANOVA F	Sig.
I	.875 <sup>a</sup>	.765	.764	.565	433.822**	.000 <sup>a</sup>
Coefficients						
Model	Unstandardized		Standardized	Sig.	95% Confidence Interval Lower	95% Confidence Interval Upper
	Beta	Std. Error	Beta			
(Constant)	.522	.143		.000	.238	.305
SP	.814	.039	.375	.000	.136	.291
DVMO	.512	.105	.469	.000	.304	.519
AIEE	.739	.058	.338	.000	.254	.323
DS	.492	.058	.591	.000	.177	.207
IS	.258	.068	.355	.000	.123	.393
ME	.512	.105	.469	.000	.304	.419
a. Dependent Variable: Service Quality (SQ)						
b. Predictors: Strategic Planning (SP); The Development of Vision, Mission and Objectives (DVMO); Analyzing the Internal and External Environment (AIEE); Developing the Strategies (DS); Implementing the Strategies (IS); Monitoring and Evaluation (ME)						
Note: N=130. *p< .05; **p< .01						

Referring to the model summary, we can see that the coefficient of the correlation is strong (R= .875). This means that correlation between strategic planning and service quality is strong. Result of Adjusted R Square (0.764) indicated that 76.5% of the variability in the level of service quality is explained by the model itself. Further, ANOVA F value (433.822) is significant at  $p < .01$ , indicating the significance of the entire model.

Unstandardized beta coefficient for SP (0.814) indicates that increase or improvement in SP by 1 unit will contribute to the increase in SQ by 81.4 units. P-value (Sig. Column) and 95% confidence interval provide supportive results for SP in relation to SQ (Sig. = 0.000; 95% CI: 0.136, 0.291) concluding that chances for making mistakes if supporting the hypothesis are less than 5% which is an acceptable range for confidence interval of 95%. Therefore, hypothesis regarding and SQ (H1) is supported.

**Table 7.** Overview of Testing Hypotheses (Author's compilation)

<i>H</i>	<i>Hypothesis</i>	<i>Supported or not supported</i>	<i>Comments</i>
H1:	There is statistically significant and positive relationship between strategic planning and improving the customer service quality in the Coastal Municipalities Water Utility (CMWU)	Supported	Enough evidence for support
H2:	There is statistically significant and positive relationship between the development of vision, mission and objectives and improving the customer service quality in the CMWU	Supported	Enough evidence for support
H3:	There is statistically significant and positive relationship between analysis the internal and external environment and improving the customer service quality in the CMWU	Supported	Enough evidence for support
H4:	There is statistically significant and positive relationship between developing the strategies and improving the customer service quality in the CMWU	Supported	Enough evidence for support
H5:	There is statistically significant and positive relationship between implementing the strategies and improving the customer service quality in the CMWU	Supported	Enough evidence for support
H6:	There is statistically significant and positive relationship between monitoring and evaluation and improving the customer service quality in the CMWU	Supported	Enough evidence for support

## **6. SUMMARY OF THE RESULTS OF THE STUDY**

After analyzing the data from respondents' responses, the study concluded with several results, as follows:

- The results of the study showed that the level of perceptions of the sample of the study on strategic planning (72.9%), which indicates that strategic planning has a high degree of approval.
- The results of the study showed that the level of perceptions of the sample of the study on the quality of service (77.3%), which indicates that the quality of service axis has a high degree of approval.
- The results of the study showed a positive statistically significant correlation between strategic planning and improving the quality of service in the Coastal Municipalities Water Utility; this indicates that the more strategic planning, the higher the quality of service.
- The results of the study showed that there is a positive statistically significant correlation between the development of vision, mission and objectives and improving the quality of service in the Coastal Municipalities Water Utility; this indicates that the more the development of vision, mission and goals, the higher the quality of service.
- The results of the study showed that there is a positive statistically significant correlation between the analysis of the internal and external environment and improving the quality of service in the Coastal Municipalities Water Utility, this indicates

that the greater the analysis of the internal and external environment, the higher the quality of service.

- The results of the study showed a positive statistically significant correlation between the development of strategies and improving the quality of service in the Coastal Municipalities Water Utility, this indicates that the more strategies are developed, the higher the quality of service.
- The results of the study showed a positive statistically significant correlation between the implementation of the strategies and improving the quality of service in the Coastal Municipalities Water Utility, this indicates that the more the implementation of the strategies, the higher the quality of the service. And,
- The results of the study showed a positive statistically significant correlation between monitoring and evaluation and improving the quality of service in the Coastal Municipalities Water Utility, this indicates that the higher of monitoring and evaluation, the higher the quality of the service.

## **7. CONCLUSION**

Strategic planning has been widely used in all types of organizations and activities in the last decade of the twentieth century. The applied strategic planning experiences have shown that strategically planning institutions outperform their overall performance of satisfaction, functional and other commitment comparing with institutions that do not plan strategically.

The quality topic took the attention of different levels of management in the institutions of both developed and developing countries, for the importance of quality as a competitive weapon is essential for trade-offs when making transactions and the ruling factor between the countries and blocs. Most importantly, the shift towards market mechanisms and the going towards free trade, and looking to the specialization, quality has become a goal that institutions must take to exceed the geographical limits. This is especially important, after the customer was on the throne of the market, the king and ruler, as the customer is the most important discovery that emerged in the second half of the twentieth century. The institutions were subject to production and operational requirements, the customer is the one who pays the workers' wages and salaries, and the other is part of the customer-oriented culture of the organization, it was natural for the customer to rise under the influence of intense competition. This cannot stand in the face of only those who seek to satisfy the customer, and achieve its requirements and wishes to a high degree, to pass it constantly and continuously. In fact, this is only through an integrated strategy, which sets primary goal that to achieve high quality in order to achieve customer satisfaction and happiness, to ensure survival, continuity, and development.

In order to maintain the institution to survive, managers work to assess the future and to face it in a deliberate manner. Thus, planning is becoming increasingly important in terms of uncertainty and change, and most large institutions are planning for different periods. One of reasons for the low market share in many US businesses is because of

they look at results in the short term, and they miss strategic planning, as a reason or impediment to thinking about improving long-term quality. We should say that the mission of the organization, which is the starting point of the strategic planning process, is based on three dimensions: the sectors of consumers to be served, the needs of consumers to be satisfied, and finally the technology that will be used to satisfy consumers' needs.

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**CHAPTER 9**  
**THE POTENTIALITY OF LABOUR IN MARX<sup>1</sup>**

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<sup>1</sup> This article is an outcome of a research draft that had been prepared at the University of Galatasaray in the course of graduate seminars.

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## INTRODUCTION

If something has to be asserted against those who claim to find in the Marxist critic of the political economy nothing but a repercussion of the classical approaches to economics, it should be first of all the concept of labour. And if, in the canonical work that reflects the aim of contributing to the critics of classical approaches to political economy by introducing the new dimension of labour, namely in *Capital*, Marx seems to fall short of a philosophical foundation that will place its emphasis not on a miscellaneous concept of labour but of a sound one, one that which lays on the accumulation of a many years' philosophical determinations, then it is not in any chef d'oeuvres yet in *Grundrisse* that the *ground* for a philosophical reevaluation of the concept of labour is firmly established. Not this or that labour, but labour as "living labour", not such or such living but living in accordance to its own nature, not this or that nature, but nature as "the material in which his [man's] labour realizes itself, in which it is active and from which and by means of which it produces" (Marx, 1992, 325), and not this or that production but production as capacity and act together, power and realisation simultaneously, potentiality and effectuation in one concept, *i.e.* both *dunamis* and *energeia*. Labour, which confronts us all along the voluminous posthumous *Grundrisse*, appears thus not as an accidental aspect of the capitalist mode of production, but as the main stake of all the moments of all the economic notions that form the capital qua concept and fact, and *Capital* the book as the proceeding result of the important investments made in *Grundrisse*. It is for that reason that here we will place our

attention upon the thread of labour as it is exposed by Marx in *Grundrisse*, as a critic of the philosophical stance and the economic mode of production that does not give a detailed account of the labour *qua* labour. And we will try to do that by means of elucidating how far and to what extent main concepts of the philosophical tradition such as *dunamis*, *energeia*, *poiēsis*, *technē* and *praxis* are reappropriated, reevaluated, or rejected, reinvented and diverted by Marx.

## 1. MARX'S POTENTIAL

Although many of the main arguments of Marx's theoretical approach stem from Hegel, and although, after many years of dispute over the question of whether Marx ever tried to construct his allegedly sheer economic analysis of *Capital* upon a more overt and flagrant base of his early critics of Hegelian philosophy, *Grundrisse* showed explicitly that, far from a detachment from its Hegelian critics, Marx continued to appropriate an anti-Hegelian and anti-dialectical point of view, there seems to be quite another problem of detachment, that is, the one from the Aristotelian tradition of philosophy and its main concepts. Maybe for the reason that industrial capitalism posits itself as a pure separation from the early modes of production (which was one of the main problems of the works proceeding *Economic And Philosophic Manuscripts* (1992), mainly that of *A Contribution to the Critique Of Political Economy* (1904)), or maybe because Hegelian philosophy confirms such a brake and separation with a more acute accentuation that affirms itself through the negation of early philosophies, it has been forgotten to pay due attention to the covert reiteration of

philosophy's main concepts turning around the concept of labour. Yet, it seems that, the more Hegelian the tone of the work makes its voice, the more a clamour coming from the Aristotelian depths resonates. Consequently, not only overt aspects of the philosophical relation between Marx and Aristotle will be found when excavated from the grounds of some scattered Aristotelian concepts that refer to Aristotle only quasi directly, but also the covert treachery of Marx over the concepts of Aristotelian tradition will be manifested throughout his overemphasis made on Hegelian concepts.

Marx examines the production process of capital by means of its relation to consumption. Accordingly, this process appears and posits itself as a double movement uniting itself in a single fact, which is *productive consumption*. In productive consumption, it is the consumption which is the *impetus* of the process; whence, after all, a consumption that is productive. This moment of consumption serves as a cover that tries to hinder the consumption that separates itself as an antithesis to production. Thus, production and consumption enter in a relation in which the sole purpose becomes productive consumption:

*Production, then, is also immediately consumption, consumption is also immediately production. Each is immediately its opposite. But at the same time a mediating movement takes place between the two. Production mediates consumption; it creates the latter's material; without it, consumption would lack an object. But consumption also mediates production, in that it alone creates for the products the subject for whom they are*

*products. The product only obtains its “last finish” in consumption. A railway on which no trains run, hence which is not used up, not consumed, is a railway only *dunamei* and not in reality. Without production, no consumption; but also, without consumption, no production; since production would then be purposeless.* (Marx, 1993b, 91)

It is important to note that, for Marx, everything occurs for the aim of production. If there is consumption, it is only in so far as it is reappropriated by production. Yet, for the producer it is the opposite way. There must be always consumption for the worker to produce, and for the product to be produced. At first glance, everything happens as if there is no need to make a further distinction between production and consumption, anyway because maybe “nothing simpler for a Hegelian than to posit production and consumption as identical” (Marx, 1993b, 93). Seemingly, the Hegelian logic of *Aufhebung*, which makes the sublation of subject and object out of their opposition in order to reach their identity, is nothing but a simpler outcome once production and consumption become antithetical at one point. What makes this process work is the *presupposition* of the consumption as the determination of the process’ negative moment. As always with Hegel, the negative element of determination and mediation takes place when the *opposition* takes place. Here, as Marx rightly puts it, Hegel uses the power of determination in order to make it subjugate to a far more high aim: *indeterminacy*. Likewise, production and consumption appear in their utmost opposition and determinacy before being

indistinguishable: “Thus production produces consumption (1) by creating the material for it; (2) by determining the manner of consumption; and (3) by creating the products, initially posited by it as objects, in the form of a need felt by the consumer. It thus produces the object of consumption, the manner of consumption and the motive of consumption. Consumption likewise produces the producer’s inclination by beckoning to him as an aim-determining need” (Marx, 1993b, 92). Here, it seems that everything happens for the sake of determination. Indeed it is so. However, what is determined is, in the last instance, nothing other than the phase of indeterminacy. It means that, if the production is *the* determination of *the* mediation that will take place in the moment of consumption, and if it determines consumption, what is determined by it is also the indeterminacy of the consumption as the aim, as the need, and as the motive — the need of consumption to be determined by production, not preexisting it, nor preceded or predetermined by itself. Yet this indeterminacy, which is the aim of this process, is also like the principle of this process. The railway which is not consumed is not only a railway which waits to be worn out by being used, but also a railway that is not producing, nor being produced. It is a railway *dunamei*, which is neither in act nor in rest, but in potentiality for act or rest; or in other words, not yet produced for the reason that it is not used. If there *is* a product, it *is* in as much it is *energeia*, an *ergon* (product): the product as realisation and effectuation, produced and consumed — but not as *dunamis* (potentiality).

The Aristotelian connotation attributed to the concept of *dunamis* does not seem to be introduced by Marx accidentally. There, there is something to be taken into consideration, but not by the basic sense of *dunamis*, not simply as capacity or possibility – there is something more (which is something less, lesser, and even absent) –, yet as privation, as negation, which is not the impossibility of realization, but instead, the capacity for it:

*Incapacity” and “the incapable” is the privation contrary to “capacity” in this sense; so that every “capacity” has a contrary incapacity for producing the same result in respect of the same subject.*

*Privation has several senses —it is applied (i.) to anything which does not possess a certain attribute; (ii.) to that which would naturally possess it, but does not; either ( a ) in general, or ( b ) when it would naturally possess it; and either (1) in a particular way, eg entirely, or (2) in any way at all. And in some cases if things which would naturally possess some attribute lack it as the result of constraint, we say that they are “deprived”. (Aristotle, 1961, 433)*

The incapacity/impotency (*adunamis*) thus appears as a condition of possibility for realisation (*energeia*). It does not mean that every *dunamis* is also *adunamis*, rather it denotes something other than that: *dunamis* is neither the possibility of realisation (*energeia*) nor the realisation of impossibility (*adunamis*). *Dunamis* is equidistant to *adunamis* and *energeia* (Aristotle, 1961, 461). What is potential

(*dunamis*) realises itself in the possibility of a privation. What is realised must be something absent and deprived of something or some quality were it not realised. Therefore, something is potential to be realised or to realise itself if it is deprived of some quality. *Adunamis* (impotentiality) as *privation* is the condition of possibility of what is potential to the extent that *energeia* is also the condition of possibility of something potential. That is why *dunamis* is equidistant to *adunamis* and *energeia*: only what should be realised is *dunamis*, and only what was not realized (*adunamis*) can (*dunamei*) be what is going to be realized (*energeia*). This is not the annulation of *adunamis*, rather, according to Agamben, is its realisation:

*To set impotentiality aside is not to destroy it but, on the contrary, to fulfil it, to turn potentiality back upon itself in order to give itself to itself. In a passage of De anima, Aristotle expresses the nature of perfect potentiality perhaps most fully, and he describes the passage to actuality (in the case of the technai and human skills, which also stands at the centre of Book Theta of the Metaphysics) not as an alteration or destruction of potentiality in actuality but as a preservation and “giving of the self to itself” of potentiality: “To suffer is not a simple term, but is in one sense a certain destruction through the opposite principle and, in another sense, the preservation [sōtēria, salvation] of what is in potentiality by what is in actuality and what is similar to it. . . . For he who possesses science [in potentiality] becomes someone who contemplates in actuality, and either this is not an alteration – since here there is*

*the gift of the self to itself and to actuality [epidosis eis eauto] – or this is an alteration of a different kind”. (De anima, 417b, 2-16). (Agamben, 1998, 46*

But, what this realisation is, and how it is that something absent renders deprived that which is not yet realised and realises that which is deprived, and that, to the degree of not being annulling and cancelling its being deprived, and of not being deprived of its deprivation; all these questions will be problematised later on. For the moment, let us deprive ourselves of this deprivation

## **2. REALISATION OF LABOUR**

In the sense that a product is realised, namely actualised, it must be both *energeia* and something that will deprive itself of its *energeia*; it must be both produced and consumed. A product thus is *dunamis* without consumption. A product is not a real product, not a *realisation* if it is not produced to be consumed, and to become deprived of its own existence as a product. So the capital is not a simple process of production. It is a “*process of self-realization*” (Marx, 1993b, 311). This self-realisation is the realisation of the consumption as deprivation and privation of what is produced from its existence as product. It is important to remember that it is not an obstruction to the process of production. Instead, the process of production is intensified and accelerated by the process of consumption. Consumption seems to be a kind of *barrier* to the capital — and it is so; nonetheless, this paradox is also that which makes the capacity of labour disposable for the capital. For there occurs, in some specific moments of the

capitalist process of production, some suspensions peculiar to the production process, and these are not without any relation to the above-mentioned self-realisation of the productive consumption:

*Within the production process, the separation of labour from its objective moments of existence—instruments and material—is suspended. The existence of capital and of wage labour rests on this separation. Capital does not pay for the suspension of this separation which proceeds in the real production process — for otherwise work could not go on at all. [...]Nor does this suspension [emphasis mine] take place in the process of exchange with the worker; but rather in the process of work itself, during production. But, as ongoing labour, it is itself already incorporated in capital, and a moment of the same. This preserving force of labour therefore appears as the self-preserving force of capital. [...]The process of the realisation of capital proceeds by means of and within the simple production process, by putting living labour into its natural relation with its moments of material being. But to the extent that labour steps into this relation, this relation exists not for itself, but for capital; labour itself has become already a moment of capital”.*  
(Marx, 1993b, 364)

The *suspension* of capitalist production presumes the difference between production and consumption, and consequently the separation between living labour and objective labour, productive labour force and wage labour as product, material forces of labour and its formal

character of objectivity for the capitalist production. But these differences, and the suspension of these differences, which is according to Marx necessary not for any producing process but especially for the capitalist mode of production, give up to exist as differences in suspension once the labour becomes the product of the capitalist production. If capitalist production uses the labour for a reproduction process, that is done not only for the sake of its being a material necessity; yet, as that which should be the perpetuator of any further production, namely for the perpetuation of the capital, this character of the labour must be consumed — in other words, the labour must be consumed. For this to be realised, labour should be bought by the capitalist, only as a commodity. Labour as commodity, as that which served firstly as a producing activity, becomes later on a commodity, like a product that must be consumed in order to become once again a producing activity — yet only for the capital. The labour, as producing activity, as living labour, according to capital, is *dunamei*, if it is not consumed as a commodity, namely, as that which is presupposed by any producing, as that which should at last be consumed, as that which will be deprived of its existence. The labour may be consuming something else, it may be depriving some other thing of some quality inherent to it, but it does not make out from this privation to any further aim of productivity; yet, in opposition to that, it is *the existence* which should be in *privation* when the capital appropriates the labour, because labour produces qua labour only insofar it ceases to exist as labour; in other words, labour produces (for the capital) insofar it consumes itself as product (of the capital):

*Labour itself is productive only if absorbed into capital, where capital forms the basis of production, and where the capitalist is therefore in command of production. The productivity of labour becomes the productive force of capital just as the general exchange-value of commodities fixes itself in money. Labour, such as it exists for itself in the worker in opposition to capital, that is, labour in its immediate being, separated from capital, is not productive. Nor does it ever become productive as an activity of the worker so long as it merely enters the simple, only formally transforming process of circulation. Therefore, those who demonstrate that the productive force ascribed to capital is a displacement, a transposition of the productive force of labour, forget precisely that capital itself is essentially this displacement, this transposition, and that wage labour as such presupposes capital, so that, from its standpoint as well, capital is this transubstantiation; the necessary process of positing its own powers as alien to the worker. (Marx, 1993b, 308)*

The capital as this displacement, this *transposition*, and the *transubstantiation*, is the self=-realisation of itself as the *potentiality* of producing. This potentiality which is both act (of producing) and the realisation of the *adunamis* as the consumption of this producing, realises itself as a *productive consumption*, as the realisation of production qua consumption, as the realisation of the *ergon* (product) qua *adunamis*, as that which is absent, non-existent, deprived of existence. Thus the realisation of the product of the worker confronts him as the privation of existence, hence the displacement of the labour

to a non-place (*atopos*), and the *transubstantiation* of the existence of the work as something non-existent (for the reason that the substance of labour, its use-value, is determined by its existence), and the transposition of the worker to the wage-labourer, of the labour to the commodity, and of the producing *qua* labour to the consumption *qua* the self-realization of capital.

### 3. TRANSPOSITION OF CAPITAL

The self-realisation of capital throughout *transubstantiation*, *transposition*, and *displacement* takes effect within the circulation, which is composed of distribution and exchange. If we carry on by subsuming these two moments of process of the capital in one moment as *circulation*, we will testify to something strange, as though the circulation is not different from consumption. In a sense, it is not, but in another, the opposite is true. Production-circulation-consumption is a reversible process<sup>3</sup>. Yet it would not make any difference to the extent that capital circulates. For, the aim of the capitalist is more to make the capital circulate than to have fixed capital. Fixed capital seems like a necessity. It is so just as a starting-point (just as the living labour of the worker is necessary as use-value

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<sup>3</sup> For Marx, the formula C-M-M-C (commodity-money-money-commodity) too is reversible insofar as money is a form of commodity, insofar as money is the substitute for all commodity. Hence the formula turns out to be M-C-C-M: "It is in the nature of circulation that every point appears simultaneously as a starting-point and as a conclusion, and, more precisely, that it appears to be the one in so far as it appears to be the other. The specific form M-C-C-M is therefore just as correct as the other, which appears the more original, C-M-M-C. The difficulty is that the other commodity is qualitatively different; not so the other money. It can differ only quantitatively". Cf. (Marx, 1993b, 203)

to prompt the production process only for the first time) because it later becomes an exchange-value that has its own use-value only in the form of compensation of the subsistence of the worker who will sell his labour as commodity<sup>4</sup> –, then it changes into a circulating

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<sup>4</sup> For Marx, living labour of the worker is essentially disposed of its capacity of producing force, disposed of as a use-value oriented towards an (inherent) concept of need. This capacity is not the kind that is appropriated as a potential (*dunamis*) for capital. It is rather the living labour which has its own bodily existence that is not separated from the body of the worker. Contrariwise, the objectified labour which is used by capital in return for money is considered at the same level as that of money, namely as a commodity value. “In general terms, the exchange-value of his commodity cannot be determined by the manner in which its buyer uses it, but only by the amount of objectified labour contained in it; hence, here, by the amount of labour required to reproduce the worker himself. For the use-value which he offers exists only as an ability, a capacity [*Vermögen*] of his bodily existence; has no existence apart from that. The labour objectified in that use-value is the objectified labour necessary bodily to maintain not only the general substance in which his labour power exists, i.e. the worker himself, but also that required to modify this general substance so as to develop its particular capacity”. Cf. (Marx, 1993b, 282). Although capital treats the living subjective labour of the worker as an object which can be bought and sold in exchange for money; in other words, although it takes the labour of the worker in its being value only as an exchange-value, it is undeniable for Marx that something of a use-value persists in order to sustain the subsistence of that specific capacity which provides exchange-value for any future commodity. And the rest is surplus labour, namely that which remains as the difference between the exchange-value of worker’s labour and the use-value of labour force (s.v. = e. v. – u.v.). This appropriation stems from a reduction. Because capitalism reduces living labour to labour time, and because labour time is measured by time, and consequently, because labour time is used as a measure that serves to create adequacy between labour and its value, we can infer from that, as Marx does, that a measure becomes its own measure, whence the reduction. Labour is abstracted by means of time to become wage-labour, and the concrete subjective labour force is reduced to the labour time. All of that is for disqualifying labour as use-value. Thus, time serves as an abstract unit that has no stable value reference. Just as the product which is produced has now nothing to do with the living labour that has necessitated the production of that product, the *past labour* as well has nothing to do with the living labour that is keenly connected with the producing time that is *present* in the act of producing. And only the living subject of the living labour is essentially a use-value (which will be appropriated by capital as death labour only *via* past-death-objectified labour that is abstracted by the time passed). “Objectified labour, i.e. labour which is *present in space*, can also be opposed, as *past labour*, to labour

capital, which produces fixed capital (machinery, etc.) that serves as the accelerator of the circulation process. The faster the capital circulates the more fixed capital grows, the more fixed capital condenses, the more circulation process intensifies. Everything happens as though circulation, with its qualitative intensification and quantitative acceleration, is not so much an efficient event. For, it is something that should be lessened for the purpose of maximum profit; nevertheless it is *sine qua non* for the production process. Circulation appears as a limit, or even as a barrier which is inherent to capital:

*While labour time appears as value-positing activity, this circulation time of capital appears as the time of devaluation. The difference shows itself simply in this: if the totality of the labour time commanded by capital is set at its maximum, say infinity, so that necessary labour time forms an infinitely small part and surplus labour time an infinitely large part of this [infinity], then this would be the maximum realization of capital, and this is the tendency towards which it strives. On the other side, if the circulation time of capital were = 0, if the various stages of its transformation proceeded as rapidly in reality as in the mind, then that would likewise be the maximum of the factor by which the production process could be repeated, i.e. the*

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which is *present in time*. If it is to be present in time, alive, then it can be present only as the *living subject*, in which it exists as capacity, as possibility; hence as *worker*. The only *use-value*, therefore, which can form the opposite pole to capital, is *labour (to be exact, value-creating, productive labour)*". Cf. (Marx, 1993b, 272)

*number of capital realisation processes in a given period of time. The repetition of the production process would be restricted only by the amount of time which it lasts, the amount of time which elapses during the transformation of raw material into product. Circulation time is therefore not a positive value-creating element; if it were = to 0, then value-creation would be at its maximum. But if either surplus labour time or necessary labour time = 0, i.e. if necessary labour time absorbed all time, or if production could proceed altogether without labour, then neither value, nor capital, nor value-creation would exist. Circulation time therefore determines value only in so far as it appears as a natural barrier to the realisation of labour time.*

(Marx, 1993b, 358-59)

Is it time that is a barrier for the process, or circulation? Or rather should we reformulate the question like that: is circulation a barrier for capital? Is circulation really a barrier for capital *in toto*? For the sake of the whole process, antithetical parts, which seem to negate each other throughout opposed aims, reaffirm their necessity in the absolute demarcation of the capital. This absolute demarcation is the absolute limit, the absolute barrier of the capital: absolute surplus value. For the time being, we do not elucidate the details concerning this “absolute surplus value”; yet, it should be emphasised that only for the sake of a growing capital that is not this or that capital but the capital as the whole process of the capitalist mode of production that there could (and should) be a barrier – without non the less forgetting that this “absolute surplus value” is also capital’s own limit that is

exposed to crisis –. So internal negations that appear like conflicts do not add up to be a barrier for the whole process. But then, if we go one step back, what is it that makes a barrier in circulation? Is it really time? In the end, it is not. But if it is not, that is because it is not time as the yardstick of abstraction. For it serves to abstract use-value to reduce it to a minimum, by augmenting the exchange-value that is produced in a given time. [Marx gives the example of mechanisation. We always tend to think that with the developing technology worker's work produces more products, and thus they should be paid more; yet we know that this is not the case. Rather, with increasing mechanisation, workers get paid with less and less remuneration, which is, as always with the growing capital, unfair but normal. For if one worker that had a certain amount of money in return for a certain amount of commodity that had been produced in a certain amount of time now produces (with the help of new technologies) more commodity (without any decrease in their prices) in the same amount of time, he or she will not have more money for that: "Capital employs machinery, rather, only to the extent that it enables the worker to work a larger part of his time for capital, to relate to a larger part of his time as time which does not belong to him, to work longer for another" (Marx, 1993b, 701). So, the more the mechanisation increases, the more time serves to create exchange-value (of commodities) and the more it serves to reduce the value of labour]. It is yet time: If an amount of time is necessary for the renewal of the

capacity<sup>5</sup> of the worker in order to provide some labour for the capitalist; or it is still time as a barrier — as that element which makes any machine (as fixed capital) worn out:

*Fixed capital whose employment required more labour for its production or maintenance than it replaced would be a nuisance. The kind that would cost nothing, but merely needed to be appropriated by capital, would have the maximum value for capital. It follows from the simple proposition that machinery is most valuable for capital when its value = 0, that every reduction of its cost is a gain for capital. While it is the tendency of capital, on one side, to increase the total value of the fixed capital, [so], at the same time, [is its tendency] to decrease the value of each of its fractional parts. To the extent that fixed capital enters into circulation as value, it ceases to act as use-value within the production process. Its use-value is precisely that it increases the productive power of labour, decreases necessary labour, and increases relative surplus labour and hence surplus value. To the extent that it enters into circulation,*

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<sup>5</sup> This capacity as *labour capacity*, is not the living labour but the objectified labour that should be made by capitalist disposable by a minimum subsistence value: “Labour capacity is not = to the living labour which it can do, = to the quantity of labour which it can get done -- this is its *use-value*. It is equal to the quantity of labour by means of which *it must itself be produced* and can be reproduced. The product is thus in fact exchanged not for living labour, but for objectified labour, labour objectified in labour capacity. Living labour itself is a use-value possessed by the exchange-value [, labour capacity,] which the possessor of the product [, the capitalist,] has acquired in trade, and whether he has acquired less or more of this living labour than he has spent in the form of the product [, wages,] for labour capacity depends on the amount of living labour paid to the worker in the product”. Cf. (Marx, 1993b, 576-77).

*its value is merely replaced, not increased. By contrast, the product, the circulating capital, is the vehicle of the surplus value, which is realized only when it steps outside the production process and into circulation. (Marx, 1993b, 766)*

Unless every product, as a commodity, does not tend towards a maximum profit, which is begotten from the value as surplus value, there would be always a limit and barrier *immanent* to capital. So this tendency of maximum profit orients itself somewhere else than the production process. Just as the circulation time (that generates a need for production of values) is limited so that it is not =0, and just as the technology of capitalist production tends to create a use-value ( that necessitates a need for reproduction of new fixed capital as machines) that has 0 exchange-value – namely, no devaluation of fixed capital by being worn out –, product too tends to step *outside* the production process (if possible, even directly, without production, without its cost of production), *into* circulation. 0, this non-immanent point of reference that the capital is, is the presupposition and predetermined supposition, determined indeterminacy – what is 0 if something undeterminable? – of the capital:

*Circulation therefore belongs within the concept of capital. Just as, originally, money or stockpiled labour appeared as presupposition before the exchange with free labour; the seeming independence of the objective moment of capital towards labour, however, was suspended, and objectified labour, become independent as value, appeared on all sides as*

*the product of alien labour, the alienated product of labour itself; so does capital only now appear as presupposed to its circulation (capital as money was presupposed to its becoming capital; but capital as the result of value which has absorbed and assimilated living labour appeared as the point of departure not of circulation generally, but of the circulation of capital), so that it would exist independently and indifferently, even without this process. However, the movement of the metamorphoses through which it must pass now appears as a condition of the production process itself; just as much as its result. (Marx, 1993b, 638)*

Thus, the condition and *presupposition* of the production process is *circulation as the movement of metamorphoses*, and as the self-realisation of capital throughout *transubstantiation, transposition* and *displacement* that this *metamorphose* is.

#### **4. POSITION OF LABOUR**

So then, what is it that makes this *metamorphic* process of circulation “presupposition” and “predetermination” of an unpredictable and displaceable movement of capital? Or rather, should we ask: what does this *metamorphose* *determines* and *decides* to be as its perpetuator? It is maybe more valuable to ask the second question as far as it concerns the internal, so to say, material relations of productions. For Marx, and for the purpose of what we are trying to deploy, the first question would be more important, and in the last instance, more determinant than the second. For although capital, as in

its presupposition as circulation, determines the material core of productive relations, does not give an account of how it becomes external to this relation and does not answer the question of how it is that it starts as this presupposition, appears nevertheless as an absent-point of appropriation of the relations of production. As in the issue of value, the determination becomes, for the capital, a matter of “matter and form” – It is also a matter of “subject and object” –. If, in the relation between use-value and exchange-value, it is, for the capitalist mode of production, the exchange-value that sets itself as the *telos*-in-itself, as self-realisation of any value-creating and commodity-producing process, and if any use-value becomes mediated by exchange-value, it is because in the *external* and *formal* character of the value that the material production realises. Likewise, if circulation is the external presupposition of the capital, and if capital is essentially circulating capital, then the internal process of material production is nothing other than a mediated matter for the self-realising form of the capital. What becomes is what was: form; and it *needs* its matter solely for a realisation of itself. That is why circulation is said to be *transubstantiation*. Circulation as the external form of the capital makes its own any substantial value (use-value) by transforming it into an exchange-value. But this is not yet a transformation, or else, a metamorphose; for circulating capital does not *transubstantiate* any substantial value only by mediating them *via* the form that it is itself, but also by *transfiguring* and *metamorphosing itself* in its *form*, in its *morphē*. There, capital as presupposition appears, first of all, not as a metamorphose or circulating form that changes and exchanges every

value that it encounters; but as a possibility of this encounter, it presupposes itself as the form without matter — no matter what happens, it *sets* and *posits* itself as a possibility and capacity, and even as potentiality (*dunamis*) of this *transubstantiation* and *metamorphose*. We could even say that it *metasubstantiates* and *transmorphoses*; for *at the end*, by the point of view of capital, what *remains* is *nothing* but a *-trans* and *-meta*, the *beyond* and the *end*, which is not here and now, and never going to be here and now, *living*<sup>6</sup>, *producing*, but always *transcending*, in an *end* which *trans-*

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<sup>6</sup> Marx is precise again on the issue of living labour as to its determinant role in the production process. Here, in one of the rarest parts in which labour is considered by Marx in its essential aspect (that does not subjugate itself to the yoke of capitalist transubstantiation), living labour appears *positive* and *determinant* in the last analysis: “There is an indifference on the part of the substance [*Stoff*] towards the form, which develops out of merely objectified labour time, in whose objective existence labour has become merely the vanished, external form of its natural substance, existing merely in the external form of the substantial [*das Stoffliche*] (e.g. the form of the table for wood, or the form of the cylinder for iron); no immanent law of reproduction maintains this form in the way in which the tree, for example, maintains its form as a tree (wood maintains itself in the specific form of the tree because this form is a form of the wood; while the form of the table is accidental for wood, and not the intrinsic form of its substance); it exists only as a form external to the substance, or it exists only as a substance [*stofflich*]. The dissolution to which its substance is prey therefore dissolves the form as well. However, when they are posited as conditions of living labour, they are themselves reanimated. Objectified labour ceases to exist in a dead state as an external, indifferent form on the substance, because it is itself again posited as a moment of living labour; as a relation of living labour to itself in an objective material, as the *objectivity* of living labour (as means and end [*Objekt*]) (the *objective* conditions of living labour). The transformation of the material by living labour, by the realisation of living labour in the material—a transformation which, as purpose, determines labour and is its purposeful activation (a transformation which does not only posit the form as external to the inanimate object, as a mere vanishing image of its material consistency)—thus preserves the material in a definite form, and subjugates the transformation of the material to the purpose of labour. Labour is the living, form-giving fire; it is the transitoriness of things, their temporality, as their formation by living time”. Cf. (Marx, 1993b, 360-61).

*cends*. Yet, it *is* and *posits* itself *as such*, as an end in itself that transcends everything, only insofar as it *is* and it *posits*. And maybe that is why we must continue by asking: What is it that makes this *metamorphic* process of circulation the “presupposition” and “predetermination” of an unpredictable and displaceable movement of capital?

What is presupposed and predetermined is itself an act of *determination* and *supposition*. Before being opposed, there is a *position*; before getting *supposed*, there *is* a *position*, and before being *predetermined*, there is a *determination*. For example, although the use-value of worker’s labour (insofar as it is not a *capacity*, but a *motion* (Marx, 1993b, 307) <sup>7</sup>) is presupposed and predetermined by the capitalist as an exchange-value that is going to be exchanged as a commodity with another commodity (that the money is), it is for the capital first of all a determinant factor only as use-value:

*The exchange-value of labour, the realisation of which takes place in the process of exchange with the capitalist, is therefore presupposed, predetermined [emphasis mine], and only undergoes the formal modification which every only ideally posited price takes on when it is realised. It is not determined by the use-value of labour. It has a use-value for the worker himself only in so far as it is exchange-value, not in so far as it produces*

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<sup>7</sup> Here, we testify to the fact that labour is not, according to Marx, essentially a *capacity* (*dunamis*), but is real as productive, living labour.

*exchange-values. It has exchange-value for capital only in so far as it is use-value. It is a use-value, as distinct from exchange-value, not for the worker himself, but only for capital. (Marx, 1993b, 306-7)*

What is crucial here is that not only capital is determining and determinant, but, it is itself a *determination*. And, as a determination, it is also determined by use-value, by living labour. The same is valid for the worker too. As the worker, according to Marx, should be aware of the fact that it is presupposed by capital not as a subject of his or her living labour but as *labour*, and that it confronts capital as an objectified labour, we too, must be aware to the fact that the determination at stake is an economic determination: “This alone, disregarding capital, already contains a relation, a relation of the worker to his own activity, which is by no means the '*natural*' one, but which itself already contains a specific *economic* character” (Marx, 1993b, 310). But then, what is the natural relation that is supposed by Marx, one may ask. It is a relation immanent to nature where man is not a separate being outside of nature and excluded from his body's *activity*. What man does is what he can. He does not produce something external to him, nor something external to nature. As the Marx of *Manuscripts* asserts: “Nature is man's *inorganic body*, that is to say nature in so far as it is not the human body, Man *lives* from nature, i.e. nature is his *body*, and he must maintain a continuing dialogue with it if he is not to die. To say that man's mental and physical life is linked to nature simply means that nature is linked to itself, for man is a part of nature” (Marx, 1992, 328). What was

striking in the early texts of Marx is the constant emphasis on the concept of *estrangement* and *alienation*. What was at stake with these concepts is alienation from the immanence of man to nature in various aspects (which were, for example in the Economic and Philosophic Manuscripts of 1844, the estrangement of man from nature, from himself, from his species-being and from his labour). This alienation became simply an issue of exclusion. Exclusion and externalisation of life (*Lebensäusserung*) (Marx, 1993b, 293) in *Grundrisse* and *Capital*, as the productive force of man qua part of labour beckons what was *estrangement* for young Marx of the *Manuscripts*. That is why *Capital* and *Grundrisse* are not crude economic explanations of how capitalism works. They try to express rather how capital *posits* itself by means of externalisation of what is immanent and, in the *last* instance and as an *end*, the externalisation of itself. But, it is not to be forgotten that this *Lebensäusserung* is also a determination and *positing*, which does not mean, in the last analysis, *negative* nor *beyond* – that is why Marx remembers us that it is a matter of changing the material relations of production (which has as its consolidating force nothing other than *ideology*, the formal character of relations of production, *metastructure* imposing itself on the *infrastructure* of material relations of production)<sup>8</sup>.

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<sup>8</sup> For Marx, *positing* does not distinguish itself from *activity*. It is for that reason that *productive consumption* cannot be, in the last analysis, other than an act of producing, and other than positing which is not about the *void* or the *negation of positivity as void* – and maybe that is why capital confronts its limit, its barrier as itself, as producing, that will never make itself reach its goal, its aim, its aim-void aim, its *telos*, and its end that is thought to be *trans-cending* –: “The whole process

## 5. PRODUCTION IN THE ZONE OF INDISTINCTION

How come is this life as labour being externalized by the capitalist mode of production? And how far is this life excluded? To what extent? To what *limit*? According to Agamben, in its Aristotelian sense, insofar as human life is essentially politic, an insofar as man has a political life, and insofar he is *zōon politikon*, man's life, man as *bare* and *natural* life, is excluded by means of *polis*, by the *nomos* that *polis* is. Thus *zoē*, as bare life, in Greek life, is excluded from city life, from *polis*, as the exception of the life that is peculiar to *polis*, namely *bios*, and became an *exception* to the law (*nomos*) to which *bios* is subjected. According to Agamben, this relation finds its extreme realisation in the *biopolitics* of the modern state:

*What characterises modern politics is not so much the inclusion of zoē in the polis – which is, in itself, absolutely ancient – nor simply the fact that life as such becomes a principal object of the projections and calculations of State power. Instead, the decisive fact is that, together with the process by which the exception everywhere becomes the rule, the realm of bare life – which is originally situated at the margins of the political order*

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therefore appears as *productive consumption*, i.e. as consumption which terminates neither in a *void*, nor in the mere subjectification of the objective, but which is, rather, again posited as an *object*. This consumption is not simply a consumption of the material, but rather consumption of consumption itself; in the suspension of the material it is the suspension of this suspension and hence the *positing* of the same. This *form-giving* activity consumes the object and consumes itself, but it consumes the given form of the object only in order to posit it in a new objective form, and it consumes itself only in its subjective form as activity". Cf. (Marx, 1993b, 303).

– gradually begins to coincide with the political realm, and exclusion and inclusion, outside and inside, *bios* and *zoē*, right and fact, enter into a zone of irreducible indistinction. At once excluding bare life from and capturing it within the political order, the state of exception actually constituted, in its very separateness, the hidden foundation on which the entire political system rested. (Agamben, 1998, 9)

The zone of indistinction that is created by modern biopolitics is not so much different from the circulating process of capital that transubstantiates the subjective matter of labour by subjugating it to the metamorphoses of exchange-process that does not take into consideration use-values of products, nor the substantial labour force of the worker. If modern biopolitics puts *bios* and *zoē* into an irreducible zone of indistinction, it is realised just as product and labour, objectified labour and subjective labour, money as the *dead pledge of society* and labour as use-value, dead labour and living labour enters into a zone of indistinction and zone of indeterminacy. For Agamben, it seems that the old paradigm of Greek society is not so much changed, but rather condensed in the modern era. It is because the concept of sovereignty that dominates western societies, and that has the above-mentioned effects, has its source in the idea of exception. This exception is thought to be always prior to that which it is an exception of, namely *nomos*. And today, if exception and *nomos* enter into a zone of indeterminacy, it is the prolongation of this fact. “The sovereign power is this very impossibility of distinguishing between outside and inside, nature and exception, *phusis* and *nomos*”

(Agamben, 1998, 37). Agamben also asserts that this indistinction is the result of the presupposition that what is excepted does not negate the law, rather founds it. So then, if *zoē* is excluded from *polis*, it was not so much excluded from the city, but it was the founding element of it, yet always being excluded from it<sup>9</sup>. *Polis*, the other of nature (*phusis*) is essentially the *nomos* that realises the exception that founds it as its essence: man is naturally political. Man accomplishes what his nature is in potentiality (*dunamis*) of but nevertheless incapable (*adunamis*) of realizing as a mere exception (*zoē*). *Technē* realizes what nature is incapable of accomplishing (Aristotle, 2000, 173). Here the exception has a founding role, yet realises itself only by being excluded. And realization is specifically an act of *poiēsis*, making something nonexistent exist. Or, in other words, *poiēsis* is the act of passage from non-being to being (Plato, 1925, 187). This is the self-realization of the exception as *adunamis* and absence, *privation* (which is the basis for a *deprivation of a private life that is imprisoned to house [oikos]*). What is the source of this privation that serves to

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<sup>9</sup> For Marx, Aristotelian distinction between chrematistics and economics is important in order to show that there is an apparent difference between the modern capitalist political economy of saving for an end in itself (that is related to the constant circulation of money without giving any chance to a possible stagnation) and the ancient conception of economy as management of the house and acquiring for the purpose of what is needed for the house. Cf. (Marx, 1993a, 253-54). But we know that according to Marx, that is due to the impossibility of providing an economy based on the appropriation of labour as a commodity. It was, in the ancient period, more suitable and necessary for citizens of the *polis* to save their money by means of labour directly begotten as use-value of slaves. As with the exception of bare life (*zoē*) to *oikos*, the exception that use-value of slave's labour formed too was separated from the use-value of citizens (*bios politikos*). Cf. (Marx, 1993a, 253-54).

accomplish what *phusis* is incapable of realizing? Nothing other than *act*.

According to Aristotle, although *dunamis* is the condition of any *act of creation* (*poiēsis*) in order to produce an *ergon* (product) as the realization of this product (*energeia*), “act is prior to potentiality”:

*Now since we have distinguished the several senses of priority, it is obvious that actuality is prior to potentiality. By potentiality I mean not that which we have defined as “a principle of change which is in something other than the thing changed, or in that same thing qua other”, but in general any principle of motion or rest; for nature also is in the same genus as potentiality, because it is a principle of motion, although not in some other thing, but in the thing itself qua itself. To every potentiality of this kind actuality is prior, both in formula and in substance; in times it is sometimes prior, sometimes not. (Aristotle, 1961, 455)*

Here, the principle for nature in-itself is movement, as *dunamis*. And this principle is prior to its realization, effectuation; yet in time, it is not prior in one sense. This one sense is too much important for us, as is for Marx. For, is it not with the abstraction of time that the wage labourer’s labour is reduced to a sheer commodity? And was not this commodity the sole presupposition of capital as something already in circulation? But where? In time? For capital, as much as it is a predisposition of the commodity (*ergon*) to be determined by time and prior to time, time becomes this preceding moment of every commodity as product: Once, there was a product that is supposed to

be a commodity. Moreover, this product is also only commodity for any future production and realization of commodity. There was not, in ancient Greek, a separation between work and product. Both were called *ergon*. But there was a separation between man and *ergon*. It was *ergon*, although not realized, that which was presupposed. And it was worker himself who should know the nature of the work to be done by his *technē*. With this *technē*, as Marx points out in Plato's opinions on the division of labour, "the labourer must adapt himself to the work, not the work to the labourer" (Marx, 1993a, 487). Here, before the division of labour there appears the division between man and his labour. Man as part of nature (*zoē*) is in potency, yet, without *technē*, not truly capable of transforming nature and itself into a work (*ergon*). Without this, and without the *priority* of this, man could not achieve producing (*poiein*). Yet, Aristotle makes a distinction between act and *technē*. *Technē* is a disposition, not an act (Aristotle, 1999, 335). And, although not an act, *technē* is the principle that is not in the work, but in the creator, in man. Therefore, man as part of nature, possesses a *technē* that is the principle of realization of what nature is in itself in potency but nevertheless incapable of realizing in itself. Only insofar as man is not only bare life (*zoē*), only insofar as it is not only a part of nature but something prior to its realization (*energeia*), something as a *telos* of nature, something that is preceding *dunamis*, will appear as an act that is not yet actualized, but is nevertheless the possibility of *bios* as *eu zen* (good life) of *polis*, the *telos* never to be accomplished although prior to its potentiality. Man as *bios*, is an *ergon* that is absent and deprived of *polis*, yet being also

*its telos*. Man as the possessor of *technē* is *bios* that is preceding its *zoē*, which is prior not in time but as *adunamis*. Thus, the impossibility (*adunamis*) of realizing (*energeia*) becomes tantamount to the *realization of the impossible*. Political man is the deprived privation of an exception that is prior to every act in one sense: in time. In time and by time man, is conceived as that must be the principle of realization of itself, every product, and work that is already actualized in the impossibility of being existent in present, in “now”, in living labour, in the living existence of a natural being that man and nature are. Life becomes an exception that is prior to itself, only by taking time as a *telos* that transcends every “living present” that is *actualising* now. And only with such an exception that labour as living force and act can be congealed in the priority of an impossible act of realization that imprisons man in the presupposition of a *technē* that serves to measure the productivity of man by means of time.

## 6. CONCLUSION

Man, which is not thought (as an exception to its living labour) as *technē* but as *poiēsis without technē*, can both be, in every *praxis* (in every procreative act), a *poiēsis*, and accomplish a *poiēsis*<sup>10</sup>. Thus

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<sup>10</sup> It was, according to Marx, also the dream of Aristotle to eliminate the *technē* as the disposition of inactive time. Time and creation could be in their maximum beneficence when they are reduced to 0. “If”, dreamed Aristotle, the greatest thinker of antiquity, ‘if every tool, when summoned, or even by intelligent anticipation, could do the work that befits it, just as the creations of Daedalus moved of themselves, or the tripods of Hephaestus went of their own accord to their sacred work, if the weavers’ shuttles were to weave of themselves, then there would be no

man, as living labour, produces not only the products but also itself; it produces at the same time products and labour itself (*ergon*). And here, in the consubstantiality of labour and product, labour as man and product as man intertwine. For there is not any transcending priority between act and product: every act is a product, and every product an act, both immanently. The self-realisation of the transcending *telos* of capital, circulating and ever determining the indeterminacy of every act of production and every product in the body of *commodity*, presupposes and predetermines nothing other than a *technē* as the impossibility (*adunamis*) of measuring labour by time. For labour is not an abstract, prefigured and transubstantiated object that could be, in the last instance, *excluded* from that which it is immanent to, namely from nature (*phusis*). For Marx too, the suspension of life as an *exception* was a necessary moment for capital only insofar as the priority is not in the abstractedness of time, but in the concrete living labour as the *impetus* of the *self-realisation* of a so-called end-in-itself of *a circulating and metamorphosing capital*. And if capital objectifies labour by externalising itself and every living labour from the process of producing as a mere abstract commodity, even that can be done thanks to the existence of living labour as-use-value: “labour

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need either of apprentices for the master craftsmen, or of slaves for the lords”’. Cf. (Marx, 1993a, 532). Yet, as we already expressed as to capital, it is, before being impossible (*adunamaton*), the very possibility of having products, its internal paradox that serves to create by *knowledge* of some art (*technē*), just as it was the possibility of having products created by slaves. Moreover, as “there would be no need”, there would be no use-values, or from the point of view of the exception of *technē*, there would be no *deprivation* (*need*), *no privation* stemming from the priority of living labour as objectified and anticipated labour (that will be appropriated by the apprentice as the knowledge of it or by the master as the product of his slave).

is the yeast thrown into it, which starts it fermenting” (Marx, 1993b, 298). Likewise, if there is an exception that the modern state of exception engenders in the indeterminacy of *zoē* and *bios*, *oikos* and *polis*, economics and politics, *technē* and *poiēsis*, *potentiality* (*dunamis*) and *realization* (*energeia*), that is not so far from the zone of *indistinction* between *labour* and *wage-labour*, *product* and *commodity*, *use-value* and *exchange-value*, and of course between man as producing force of living labour and man as the object of the capitalist mode of production. If there is such a *zone of indistinction*, it is because one of these dualities is first separated and excluded as the exception that founds and transcends any zone of immanence. And if, in order to *create this state of exception*, labour is not conceived essentially as a living and producing force but as an abstract *technē* prior to *life* and prior to an immanent time of producing and creating (*poiēsis as praxis* or *poiēsis without technē*), it is done because of the fact that something has been *posited* and *created* as exception. Yet this *position* and *creation is first of all*, and *prior to all exception*, an act of producing which has its source on life as a part of nature, and on labour as the activity of producing immanent to nature and man. In as much as it concerns Marx, labour, this immanent producing force, was, at the end, and in the first instance, not a *potentiality* deprived of *praxis*, but a *poiēsis*, an act of creation and producing that is the base of even the most obtrusive *technē* as *exception*, that is to say, the *capital*. That is why it is *possible* and at the same time *real* to change the existing modes of production in the name of what they fundamentally are, *i.e.* labour as productive and living force immanent to nature and time.

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## **CHAPTER 10**

### **OBJECTIVE AND SUBJECTIVE SPATIAL EFFECTS OVER QUALITY OF LIFE OF ADANA RESIDENTS**

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## **PREFACE**

Our study Mavruk et al. (2020) was published online. This motivated me to investigate whether spatial effects over Quality of Life (QoL) are different from that over happiness. Well-being theory converges SWB to QoL and Happiness. Whether Adana residents perceive both to be the same also needs to be investigated. Statistical analysis or model estimation results can easily answer this question. In practical life of Adana, I observe that unemployment, low income, air pollution, housing cost and neighborhood safety are more vital than location of living, and health unless it gets worse. By this observation, I can comfortably say that perceived variables would better explain QoL than objective variables. However, people in Adana prefer urban locations to rural to live in. Specifically, native Adana residents prefer to live in central or secondary pedestrian areas for better services despite high housing cost. This can be explained by higher income. Based on these observations and literature findings, I set up the hypotheses. Based on confirmation of the hypotheses, I intend to suggest the authorities for possible implementations to enhance QoL. I feel comfortable about our expectations to be confirmed unless there is a social desirability bias of respondents.

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## INTRODUCTON

Quality of life (QoL) linked with micro-spatial nature has drawn a lot of attention in the recent well-being research. Researchers have been proposing various implementations to policy makers to enhance QoL. Government policies play a crucial role in enhancing QoL of residents. Micro-spatial assessment of QoL of Adana residents was not investigated in the well-being research. However, micro-spatial assessment of happiness of Adana residents was investigated (Mavruk et al. 2020). Based on observations, unemployment and air pollution, the most important characteristics of Adana, are included for the assessment of QoL.

A vast number of QoL related studies linked with socio-economic, socio-demographic, social capital, objective and subjective spatial variables is present in the well-being literature. At a particular time, as hopes and expectations are met based on present experiences, higher QoL can be achieved (Calman 1984). In addition, QoL definition of WHO (2019) includes perception of life status based on culture and points to the effects of health, personal characteristics, social relationships and environment over QoL. Camfield and Skevington (2008) deduce that LS is “nested” within overall QoL, and subordinate to the overall concept. To measure community well-being, Bernini et al. (2013) measures the impact of three domains over individual well-being and QoL. In his review of literature on happiness and QoL, Ballas (2013) stresses the significance of the impact of social and spatial inequalities over QoL.

This article focuses on the effects of spatial variables over QoL with socio-economic and social capital control variables. The relationship of objective and subjective spatial variables with QoL and the locations where and the perceptions for which QoL is the highest are investigated using logistic regression models.

The rest of the chapter is organized as follows: In the methodology section, reliability and construct validity of data are checked, statistical methods are provided, hypotheses and models are defined; and dependent and independent variables are introduced. In the results section, descriptive and model estimation results are tabulated. The relationships of spatial variables with quality of life is determined. In discussion section, the results of the study are compared with previous literature findings. The study concludes with possible implications for QoL policies and their implementation.

## **1. METHODOLOGY**

### **1.1. Data Resource**

In January-February 2019, a social survey was conducted to 980 people living in Adana. Simple random sampling method was used. The survey includes questions over demographic, socio-economic, social capital, objective and subjective spatial variables. Minimum sample size with 5 percent margin of error was calculated to be 403, which meets the requirement.

## **1.2. Validity and Reliability**

Reliability of the survey with 27 items is tested using SPSS. Cronbach alpha is estimated to be 0.702. Principal component analysis is used to test construct validity. Varimax method is used to generate rotation matrix. (Kaiser-Mayer-Olkin) KMO value is estimated to be 0.839 which is greater than 0.60. This shows sufficiency of the sample for the analysis. The Barlett test, which tests the null hypothesis of all correlation coefficients are zero, significance level  $p=0.000<0.05$  shows that the correlation matrix is not unity. Total explained variance was estimated to be 57.3%.

## **1.3. Statistical Methods**

For the parallel line (pl) assumption, brant command of Long and Freese (2001) is used after ordered logit models for global and individual Wald tests. Although lower categories of health status, trust in human and neighborhood safety violates pl assumption, global test was insignificant, indicating that the pl assumption was not violated. Ordinal regression model (logit) gives a test of proportional odds or parallel lines (pl) assumption. pl assumption with  $p>.05$  shows no significant evidence to reject the null hypothesis, which indicates that the relationships are holding across the scales on quality of life. Therefore, ordered logistic regression model is used to find how explanatory variables affect QoL relative to their reference categories. The observable variable is Q such that

$$Q = \begin{cases} 1 & \text{if } Q^* \leq \mu_1 \\ 2 & \text{if } \mu_1 < Q^* \leq \mu_2 \\ \vdots & \\ j & \text{if } \mu_{j-1} \leq Q^* \end{cases}$$

where  $\mu_{j-1}$  are unknown thresholds (cuts) to be estimated.

The strength of the relationship is measured by McFadden's  $R^2$

statistics  $R_M^2 = 1 - \frac{L(\hat{B})}{L(B^{(0)})}$

#### 1.4. Hypotheses

The hypotheses of the study are that (1) the highest QoL is in central pedestrian areas; (2) subjective variables are more important than objective variables in explaining higher QoL; (3) housing cost is more related to higher QoL than neighborhood safety; (4) higher QoL is related to dissatisfaction with air pollution.

#### 1.5. Dependent Variable

This article used self-reported social survey questions. Dependent variable QoL is based on single item question: "Think about your life in the last two weeks. How would you rate your quality of life?" The five-point scale is provided from very bad to very good.

#### 1.6. Independent Variables

Independent variables are Socio-Economic (SE), Objective Spatial (OS), Perceived Spatial (PS) and Socio-Spatial (SS) variables. SE variables are gender, age, marital status, education, health, employment, monthly income. OS variables are locations of living. To

the question “where do you live?” options were intensive pedestrian locations, intensive public transport locations, secondary pedestrian locations, intensive transit junctions, vehicle dependent neighborhoods and remote neighborhoods. PS variables are neighborhood safety and housing cost, which are measured using five-point scale questions “To what extent are you satisfied with your neighborhood safety” and “To what extent are you satisfied with housing cost”. The five-point scale was from very unsatisfied to very satisfied. For how they are disturbed from their environment, respondents were asked “which problems do you experience most around your house?” with five options which are access to services, noise and traffic, public transport, air pollution, no problem. Furthermore, lack of green space, quality of water, theft and harrasment in the neighborhoods were asked. Income inequality based on minimum wage is included in the model to control for SS variable.

Table 1 shows perceived environmental factors and degree of disturbances.

**Table 1.** Subjective Variables And Disturbance

	Subjective Variables	Disturbance		Total
		0 Very disturbed	1 Not disturbed	
0	Undisturbed	13	129	142
1	Access to services	31	6	37
2	Noise and traffic	104	5	109
3	Bad public transportation	40	6	46
4	Air pollution	55	7	62
5	Noise, traffic and bad public transportation	17	1	18
6	Noise, traffic and air pollution	50	4	54
7	Bad public transportation and air pollution	12	3	15
8	Noise, traffic, bad public transportation and air pollution	45	7	52
	Total	367	168	535

## 1.7. Models

Average marginal effects (AME) of OS variables over QoL are estimated through SE control variables. AME of SC and PS variables over the QoL are estimated through SE and OS variables. In all table results, robust standard errors are included. SE variables such as sex, age, education, income, health, marital status and neighborhood were correlated with QoL. The ordered logistic regression model is

$$Q_i = \alpha_i + \beta_1 SE_i + \beta_2 OS_i + \beta_3 PS_i + \beta_4 SC_i + \beta_5 SS_i + \varepsilon_i \quad (1)$$

where  $\varepsilon_i$  is the error term, and  $Q_i$  is quality of life receiving a value from 1 to 5.

For interaction effects interaction model is

$$Q_i = \alpha_i + \beta_1 X_i + \beta_2 Y_i + \beta_3 X * Y_i + \varepsilon_i \quad (2)$$

## 2. RESULTS

### 2.1. Descriptive Findings

Females report higher rate (6.6 percent) higher QoL than males (3.9 percent). 22.2 percent of the divorced or separated individuals report poor QoL, which is the highest within marital status. Higher QoL is more related to higher income category.

Percent distribution based on residential areas indicates that 22 percent of the respondents were from heavy pedestrian area, 13.2 percent from intensive transit junctions, 6.8 percent from the secondary pedestrian area, 10 percent from heavy public

transportation junctions, 44.5 percent from car dependent neighborhoods and 3.5 percent from remote villages and small towns. The distribution of QoL with respect to age indicates positively skewed behavior for both males and females. QoL modal ages for females are 30 and 35 and for males is 24.

Vehicle dependent neighborhoods report higher rates of higher QoL compared to the other regions. Respondents who live in secondary pedestrian areas and heavy transit junctions are mostly disturbed by air pollution. About 80 percent had a monthly income less than 4000 (below poverty line) and 20 percent had 4000 or more. About 88 percent of those living in remote villages and towns, about 75 percent of those living in central pedestrian areas, about 80 percent of those living in heavy public transportation junctions, about 81 percent of those living in secondary pedestrian areas, 80 percent of those living in vehicle transit junctions and 83 percent of those living in car dependent neighborhoods have an income level below poverty line.

QoL percentages based on perceived spatial variables. 15.2 percent of 13.4 percent who are very dissatisfied with water quality, 4 percent of 28 percent who are very disturbed by air pollution, 4.3 percent of 28.3 percent who are very displeased with bad public transportation, 4.5 percent of 18 percent who are very dissatisfied by lack of green space, 4.2 percent of 41 percent who are very displeased with presence of the Syrians, 10.4 percent of 14.7 percent who are dissatisfied with neighborhood safety, and 6.9 percent of 23 percent who are very displeased with the cost of housing report very poor QoL.

## 2.2. Model Estimation Results

### 2.2.1. Objective Spatial Variables and QoL

The effects of vehicle transit junctions and public transport areas relative to central pedestrian areas over QoL are negative and statistically significant. Table 2 shows the outcomes for QoL using OLM. Reference category of objective spatial variables is central pedestrian areas. The three values of each area under QoL column indicate AME of the areas over lower QoL, moderate QoL and higher QoL.

Through health status, the marginal effect of OS over QoL in the first column of Table 2, shows that, on average, those living in secondary pedestrian areas are 5.3 pp more likely than those living in central pedestrian areas to say they have moderate QoL. Alternatively, spatial effects of moving from central pedestrian areas to secondary pedestrian areas increases the probability of moderate QoL,  $\partial\text{Pr}(\text{QoL}=3)/\partial(\text{OS}=3)$ , by 0.053.

**Table 2.** OS Effects Over Quality of Life

OS variables Reference: Central pedestrian areas	QoL		
	Socio-economic	Socio-economic Social Capital Perceived Spatial	Socio-economic Social Capital Perceived Spatial Income inequality
	.049 (.029)	.047 (.028)	.047 (.028)
Public transport	.045 (.024)	.043 (.024)	.043 (.024)
	-.095 (.051)	-.089 (.051)	-.090 (.051)
	.065 (.038)	.063 (.037)	.061 (.037)
Secondary pedestrian areas	.053* (.025)	.052* (.025)	.051* (.025)
	-.118 (.061)	-.115 (.060)	-.112 (.060)
	-.000 (.022)	-.000 (.022)	-.001 (.022)
Vehicle intensive transit junctions	-.000 (.028)	-.001 (.028)	-.002 (.028)
	.000 (.051)	.001 (.051)	.003 (.050)
	.000 (.017)	.002 (.017)	.002 (.017)
Vehicle dependent neighborhoods	.000 (.021)	.002 (.021)	.003 (.021)
	-.000 (.038)	-.003 (.038)	-.005 (.038)
	-.025 (.030)	-.023 (.031)	-.020 (.031)
Remote neighborhoods	-.037 (.051)	-.034 (.051)	-.029 (.049)
	.062 (.082)	.057 (.082)	.048 (.080)
N	980	980	980
McFadden Pseudo R <sup>2</sup>	.0423	.0482	.0519

\*Significant at 5%, Socio-economic is health status, social capital is human trust, perceived spatial is neighborhood safety, robust standard errors are in paranthesis

Through health status, the marginal effect of OS over QoL in the first column of Table 3, shows that, on average, those living in secondary

pedestrian areas are 17.9 pp less likely than those living in remote neighborhoods to say they have higher QoL.

**Table 3.** OS Effects Over Quality of Life

OS variables Reference: Remote	QoL		
	Socio-economic	Socio-economic Social Capital Perceived Spatial	Socio-economic Social Capital Perceived Spatial Income inequality
Central pedestrian	.025	.023	.019
	(.029)	(.031)	(.031)
	.037	.034	.029
	(.049)	(.050)	(.049)
Public transport	-.062	-.058	-.048
	(.078)	(.081)	(.080)
	.074*	.069	.066
	(.037)	(.037)	(.037)
Secondary pedestrian areas	.082	.077	.071
	(.050)	(.050)	(.048)
	-.156	-.146	-.137
	(.085)	(.085)	(.084)
Vehicle intensive transit junctions	.089*	.087*	.081
	(.044)	(.044)	(.044)
	.090	.087	.080
	(.051)	(.049)	(.049)
Vehicle dependent neighborhoods	-.179*	-.173	-.161
	(.091)	(.090)	(.088)
	.024	.023	.018
	(.032)	(.032)	(.033)
N	.037	.034	.027
	(.053)	(.052)	(.051)
	-.061	-.057	-.046
	(.085)	(.084)	(.083)
McFadden Pseudo R <sup>2</sup>	.025	.025	.022
	(.029)	(.029)	(.029)
	.037	.036	.031
	(.049)	(.049)	(.047)
N	-.062	-.060	-.053
	(.078)	(.078)	(.076)
	980	980	980
	.0423	.0482	.0519

\*Significant at 5%, Socio-economic is health status, social capital is human trust, perceived spatial is neighborhood safety, robust standard errors are in paranthesis

### 2.2.2. PS Variables and QoL

Table 4 indicates that spatial effect of QoL is more related to satisfaction with housing cost. The first column shows that, on average, satisfaction with housing cost vs. dissatisfaction increases the probability of being in higher category of QoL by 14.3 pp (i.e. the effect of satisfaction with neighborhood safety vs. dissatisfaction on the higher QoL is an average increase of 14.3 pp), decreases the probability of being in moderate or lower category of QoL by 7.2 pp and decreases the probability of being in lower category of QoL by 7 pp. On average, dissatisfaction with air pollution vs. no problem decreases the probability of being in higher category of QoL by 9 pp.

**Table 4.** PS Effects Over QoL

Perceived variables	QoL		
	Socio-economic	Socio-economic Objective spatial	Socio-economic Objective spatial Income inequality
Air pollution	.040**	.036*	.036*
	(.016)	(.017)	(.017)
	.050*	.044	.044
	(.022)	(.023)	(.023)
Satisfied with neighborhood safety	-.090*	-.080*	-.080*
	(.038)	(.039)	(.039)
	-.068*	-.062*	-.064*
	(.030)	(.030)	(.030)
Satisfied with housing cost	-.058**	-.052*	-.054**
	(.020)	(.021)	(.020)
	.127**	.114*	.118*
	(.049)	(.049)	(.049)
Satisfied with housing cost	-.070**	-.069**	-.069**
	(.024)	(.024)	(.024)
	-.072**	-.070**	-.069**
	(.023)	(.023)	(.023)
N	980	980	980
	Pseudo R <sup>2</sup> McFadden's	.0387-.0430	.0431-.0480

\*\*Significant at 1%, \*Significant at 5%, Socio-economic is health status, social capital is human trust, perceived spatial is neighborhood safety, robust standard errors are in paranthesis

Through health status, the effect of satisfaction with housing cost over good QoL is positive (0.143 pp) and significant ( $p < 0.01$ ). Similarly, the effect of satisfaction with neighborhood safety over good QoL is positive (0.127 pp) and significant ( $p < 0.01$ ). Through health status, social capital, objective spatial and sosyo-spatial variables, the effect and significance remains about the same as shown in the second and third column. However, spatial variables do not contribute to the effects of the previous models.

Although direct effect of employment status is not significant to explain higher QoL, the effect of satisfaction with housing cost through employment status is stronger and more significant than through health status. Through employment status only, the positive effect of satisfaction with housing cost and with neighborhood safety is 0.034 pp higher relative to dissatisfaction.

### **2.2.2. Interaction Effects**

Using model 2 interaction effects are estimated. The retirees living around intensive transit junctions and the unemployed in car dependent neighborhoods seem to have higher QoL relative to those currently employed in heavy pedestrian areas. Those who are neutral about neighborhood safety in intensive transit junctions and remote neighborhoods seem to have lower QoL relative to those dissatisfied with neighborhood safety in central pedestrian areas. Those very satisfied ( $b = -2.95$ ;  $p < .001$ ) and neutral ( $b = -2.03$ ;  $p < .05$ ) with housing cost in remote neighborhoods and very satisfied ( $b = -1.31$ ;  $p < .05$ ) in public transport areas have lower QoL than those who are dissatisfied

with housing cost in central pedestrian areas. Those who are disturbed, neutral and not disturbed by air pollution in remote neighborhoods seem to have substantially lower QoL( $b=-15.00$ ;  $p<.001$ ) than those very disturbed by air pollution in central pedestrian areas. Those who are certainly not disturbed with air pollution in public transport areas seem to have substantially higher QoL ( $b=15.3$ ;  $p<.001$ ) than those very disturbed by air pollution in central pedestrian areas.

### **3. DISCUSSION**

Descriptive findings indicated that Adana residents are poor and deprived, which is in line with Turkish Statistical Institute 2016 income and living conditions survey NUTS 2 regional results indicating that the region with the highest relative poverty rate based on income was Adana with 15.9 percent where the poverty line calculated on the basis of 50 percent of the median income that is equivalent to the households disposable individual income for each region. Adana is quite distressed by unhealthy urbanization, transportation, city traffic and has some environmental issues. Policy orthodoxy may claim that these urban problems are the result of intrinsic micro-spatial failures of people and places (Rae, 2011). Opposing this claim Sampson (2003) points to the need for new measurement strategies as well as theoretical frameworks that do not simply treat the neighborhood as a “trait” of the individual.

Global happiness (Mavruk et al. 2020) showed more significant spatial effects in urban-rural and others-central pedestrian difference compared to QoL in this study. As expected, relative to central

pedestrian locations, QoL showed no spatial significance except for secondary pedestrian locations. Public transport-central pedestrian difference over short term happiness and rural-central pedestrian difference over four week happiness showed spatial significance. No location relative to central pedestrian showed spatial significance over one week happiness (Mavruk et al. 2020). Despite the same significance ( $p < .001$ ), perceived spatial effects over happiness (Mavruk et al. 2020) were more than twice stronger than over QoL of this study.

Through locations, being in good health status vs. poor health status has significantly increased the average probability of being in moderate or lower QoL category, and adding SC and PS, and then SS to the same model have increased the effects and their significance. The spatial significance of increasing effects of good health status on moderate QoL has increased while spatial significance of decreasing effects of good health vs. poor health on both lower and higher QoL remained about the same, with less than point one percent difference.

#### **4. CONCLUSION**

The study determined the spatial effects over quality of life. Quality of life was measured at location levels in Adana. The highest QoL is most likely in central pedestrian areas, which was confirmed by model 1 estimation results indicating that the effects of locations relative to central pedestrian areas over higher QoL are negative. This result was in line with Ala-Mantila et al. (2018). It seems that perceived spatial variables are more important than objective spatial variables, which

was confirmed by showing that the perceived effects were more significant than objective spatial effects. Spatial effects over happiness (Mavruk et al. 2020) show the same result. Evidence on neighborhood perception effects indicates that satisfaction with housing cost was more likely related to higher QoL than satisfaction with neighborhood safety. For environment perception, it seems that higher QoL was related to disturbance with air pollution.

Interaction effect results indicate that positive perceptions in intensive public transport and vehicle transit junctions relative to negative perceptions in central pedestrian areas report lower QoL. An interesting result is that the retireds who live around intensive transit junctions and the unemployed who live in car dependent neighborhoods seem to have higher QoL relative to those currently employed in heavy pedestrian areas. Regardless of the degree of disturbance from air pollution, remote neighborhoods report lower QoL than those very disturbed with air pollution in central pedestrian areas.

Authorities should consider important determinants of higher QoL, and develop and implement new policies for more adequate services to neighborhoods of Adana in order to enhance quality of life.

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## **CHAPTER 11**

### **DETERMINING THE FACTORS THAT CONSTRAINT STATE SCHOOL TEACHERS FROM PARTICIPATING IN LEISURE TIME ACTIVITIES**

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## INTRODUCTION

With the increase in the level of education and culture, the leisure time of individuals has increased and the rate of participation in leisure activities to improve themselves and relax has increased. The change in the idea that free time activities after work will cause fatigue again, has supported the idea of participating in leisure activities, and people have adopted the understanding of resting by learning and taking pleasure (Hacıoğlu, Gökdeniz & Dinç, 2015).

People participate in leisure activities due to need for individual and social development depending on the cultural richness of the society. While people are participating in these activities, giving them the opportunity to determine the activities they want to participate also helps to reveal their creative power (Kılbaş Köktaş, 2004). Leisure and recreation offer people important opportunities to learn (Wells & Merriman, 2002). Leisure time has a feature that enables people who want to get rid of the busy pace of business life to adapt to society and renew themselves (Bull, Hoose & Weed, 2003) moreover, it has a feature that increases the general satisfaction level in life (Passmore & French, 2001). Büküşoğlu and Bayturan (2005) found that young people felt more active, sociable, secure, less anxious after leisure time activities, and increasing some features such as knowing oneself, expressing their thoughts, and taking responsibility. Bardakçı and Yıldız (2020) stated that young people are directed to sports activities by their parents so that they can make good and efficient use of their leisure time.

In developed countries, the use of leisure time is supported by various cultural and vocational activities as well as sports activities, and more help is provided to sociable and economic progress of people. Person desires to enjoy life by participating in sports or actual entertainment activities, touristic trips, social and cultural activities outside of working hours (Ekici & Yenel, 2002).

The concept of disability expresses the reasons faced by people that prevent or restrict people from participating in leisure activities. Despite positive effects of participating in leisure activities, it was observed that people could not participate due to various reasons or obstacles in living conditions (Karaküçük & Gürbüz, 2007). Factors that prevent or limit people's participation in leisure activities are expressed as individual, interpersonal and needs. When the positive effects of participation in leisure time activities are considered, it is thought that determining the effects that limit participation in such activities is important both individually and socially (Temir & Gürbüz, 2012). The purpose of the study is to determine the factors that constraint teachers working in the state schools from participating in leisure activities.

## **1. METHOD**

Descriptive survey model was used as it was desired to reveal a situation existing in the study. Survey models are research models that aim to reveal a past or present situation. In this context, the factors subject to the study were defined as they are and concluded by observing them appropriately (Karasar, 2000).

### **1.1. Study Group**

The study group consisted of a total of 252 teachers, 168 males, 84 females, selected by random sampling method, among the teachers working in the state schools in Kadirli district of Osmaniye in 2019-2020 Academic Year. Brief information was given about the purpose of the research and how the scale should be filled in the application process.

### **1.2. Data Collection Tool**

The "Leisure Constraints Questionnaire" developed by Alexandris and Carroll (1997a) and adapted into Turkish by Karaküçük and Gürbüz (2006) and consists of 6 sub-dimensions and 18 items whose construct validity was tested by Gürbüz, Öncü, and Emir (2012) was used. The scale consists of 18 items to measure 6 sub-dimensions that push individuals to identify their leisure time barriers as (1) "individual psychology", (2) "lack of knowledge", (3) "facility" (4) "lack of friends", (5) "time" and (6)". Leisure constraints of individuals were measured with a 4-point Likert-type scale as "Absolutely Unimportant (1)" and "Unimportant (2)", "Important (3)", and "Very Important (4)". Cronbach's Alpha values of the scale are "individual psychology 0.77", "lack of knowledge 0.86", "facility 0.80", "lack of friends 0.81", "time 0.65" and "lack of interest 0.86".

### 1.3. Analysis of Data

In statistical analysis, one way variance analysis (ANOVA) was used for comparisons of more than two groups and independent samples t test analysis was used for paired comparisons. While t test was used in the variable of gender the teachers participating in research, One-Way Variance Analysis was used for the age variable. The level of significance was taken as 0.05.

## 2. RESULTS

**Table 1.** Distribution of the Participants by Gender, Age, Theoretical and Applied Course Variables

<b>Variant</b>		<b>N</b>	<b>%</b>	<b>Total</b>
Gender	Male	168	66.7	252
	Female	84	33.3	
Age	22-26	19	7.5	252
	27-31	59	23.4	
	32-36	56	22.2	
	37 and over	118	46.8	
Course	Theoretical	115	45.6	252
	Applied	137	54.4	

In terms of statistical results, it was specified that the teachers regarding gender, age, theoretical and applied course variables, 66% of the participants were male, 33% were female, nearly half of the participants, 46.8% were 37 years old and above, in the theoretical and applied course variable 45.6% of them were theoretical and 54.4% were applied.

**Table 2.** Average and Standard Deviation Values of Sub-Dimensions of Participants' Leisure Constraints Questionnaire

Sub Dimensions	N	X	SS
Lack of Friends	252	2.72	.864
Lack of Information	252	2.99	.751
Individual Psychology	252	2.65	.722
Lack of Interest	252	2.61	.686
Facility	252	3.21	.645
Time	252	3.05	.531

According to Table 2, it was seen that the lack of friends dimension of the Leisure Constraints Questionnaire ranks first as an obstacle to teachers' participation in leisure. It was determined that lack of information, individual psychology, lack of interest, facility, and time dimensions followed this finding, respectively.

**Table 3.** T test Results of the Participants in terms of the Gender Variable

Factor	Gender	N	X	SS	t	P
1. Individual Psychology	Female	84	2.73	.667	1.111	.268
	Male	168	2.62	.747		
2. Lack of Information	Female	84	3.00	.763	.158	.875
	Male	168	2.98	.748		
3. Facility	Female	84	3.13	.704	-1.360	.175
	Male	168	3.25	.612		
4. Lack of Friends	Female	84	2.71	1.194	-.137	.891
	Male	168	2.72	.643		
5. Time	Female	84	3.03	.537	-.390	.697
	Male	168	3.06	.529		
6. Lack of Interest	Female	84	2.61	.712	-.043	.966
	Male	168	2.61	.674		

$p > 0.05$

According to Table 3, no statistically significant difference was found in terms of gender variable in the sub-dimensions of individual psychology, lack of knowledge, facilities, lack of friends, time, and lack of interest of Leisure Constraints Questionnaire ( $p > 0.05$ ).

**Table 4.** One-Way Variance Analysis of Results by Age Variable of the Participants

Factor	Age	N	X	SS	F	P	Tukey
1. Individual Psychology	22-26	19	2.80	.559	.876	.454	
	27-31	59	2.74	.824			
	32-36	56	2.65	.749			
	37 and over	118	2.59	.676			
	<b>Total</b>	<b>252</b>	<b>2.65</b>	<b>.722</b>			
2. Lack of Information	22-26	19	3.03	.683	.169	.917	
	27-31	59	3.03	.837			
	32-36	56	3.00	.762			
	37 and over	118	2.96	.718			
	<b>Total</b>	<b>252</b>	<b>2.99</b>	<b>.751</b>			
3. Facility	22-26	19	3.28	.650	.250	.861	
	27-31	59	3.25	.634			
	32-36	56	3.19	.762			
	37 and over	118	3.18	.593			
	<b>Total</b>	<b>252</b>	<b>3.21</b>	<b>.645</b>			
4. Lack of Friends	22-26	19	2.47	.687	1.138	.334	
	27-31	59	2.64	.656			
	32-36	56	2.68	.633			
	37 and over	118	2.81	1.051			
	<b>Total</b>	<b>252</b>	<b>2.72</b>	<b>.864</b>			
5. Time	22-26	19	2.78	.610	2.990	.032*	1-4*
	27-31	59	2.98	.456			
	32-36	56	3.04	.596			
	37 and over	118	3.13	.506			
	<b>Total</b>	<b>252</b>	<b>3.05</b>	<b>.531</b>			
6. Lack of Interest	22-26	19	2.49	.731	0.799	.495	
	27-31	59	2.72	.701			
	32-36	56	2.59	.628			
	37 and over	118	2.59	.698			
	<b>Total</b>	<b>252</b>	<b>2.61</b>	<b>.686</b>			

p>0.05

According to Table 4, when the findings regarding the time sub-dimension of the Leisure Constraints Questionnaire are examined, a significant difference was found in age variable ( $p < 0.05$ ). Tukey HSD test was applied to specify which groups this difference was in, and as

a conclusion, it was specified that there was a significant difference in the time dimension of teachers aged 22-26 and over 37. When the other sub-dimensions of the Leisure Constraints Questionnaire were examined, it was found that there was no statistically significant difference.

### **3. DISCUSSION AND CONCLUSION**

In research; it was conducted to designate the factors that constraint teachers working in state schools from participating in leisure activities.

When the findings in Table 2 are examined, lack of friends, lack of knowledge, individual psychology, lack of interest, facility and time dimensions are expressed in order of importance as obstacles to teachers' participation in leisure time activities. These findings show that the most important obstacle that teachers consider as the obstacle to participate in leisure activities is that there is no friend with whom they can act together and spend their free time. Moreover, it can be interpreted that their level of knowledge about the activities they want to do is not sufficient, that they do not feel ready and interested in such activities psychologically, that they do not have facilities to participate in leisure activities and that they cannot find time for such activities in their lives. Emir et al. (2013) found that the most important reasons for university students' leisure time obstacles are the lack of time and knowledge after the facility. Gümüş (2016) found that the factors that constraint participation in recreational activities are the lack of time, facilities and friends. Yaşartürk et al. (2016)

determined that the time factor affects the participation of sedentary women in leisure activities. Alexandris and Carroll (1997b) stated the lack of time and facilities as barriers to participation in sports recreation activities in Greece. Alan (2018) determined that recreation areas are not sufficient in Edirne Province. Arslan, Namlı, and Doğaner (2018) specified that the sports sciences faculty students' faced insufficient facilities, while students studying at the law faculty or with high income levels faced obstacles in terms of time management. Bosna et al. (2017), Mahiroğlu (2016), Karaçar et al. (2014), Çoruh (2013), Masmanidis et al. (2009) and Kaba (2009) determined that the recreational areas of universities are insufficient.

When the findings in Table 3 are examined, no significant difference was found in any dimension of scale in terms of gender variable. This result can be interpreted as being a male or female teacher does not affect participating in recreational activities. However, there are studies showing that being a woman prevents participation in leisure activities in many societies. Solakumur et al. (2019) determined a significant difference in terms of facilities/services, time and lack of interest in terms of gender variable. Emir et al. (2016) found that the most important obstacle in participation of Turkish women in leisure activities is facility sub-dimension, and the least important obstacle is the lack of friends. Polat (2017) stated that female university students have more obstacles to using leisure time than men. Emir et al. (2013) found that female university students faced greater obstacles than male students in terms of individual psychology, lack of time and interest. Önal (2007) determined that housewives could not participate

in recreational activities because the facilities were not sufficient. Gürbüz and Henderson (2014) have concluded that women in Turkey encountered more obstacles compared to men in terms of participation in recreational activities. Alexandris and Carroll (1997a) found that Greek women had more disabilities in leisure time than men. Gümüş (2012) found that women cannot participate in recreational activities as often as men.

When the findings in Table 4 are examined, it is revealed that there is a significant difference in time dimension in terms of the age variable, and this difference is between teachers aged 37 and over, 22-26 years old. This situation can be explained by the fact that young teachers spend more time on leisure activities in terms of time. Sabancı (2016) determined that academicians between the ages of 31-40 in the time sub-dimension in terms of age have higher mean scores than those aged 51 and over. In the time dimension, they found that the average of the teachers between the ages of 44-51 was higher. Contrary to the findings of the research, Has (2016) concluded that there is a significant difference in lack of facilities and friends sub-dimensions in terms of age variable, but there is no significant difference in the sub-dimensions of individual psychology, lack of information, time and lack of interest.

In the study, it was concluded that the most important factor that prevents teachers from participating in leisure activities is the lack of friends, gender does not constitute an obstacle to participation, and young teachers are more willing to participate.

#### **4. RECOMMENDATION**

From now on, it is recommended to reach more in-depth information by conducting researches through qualitative research.

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## **CHAPTER 12**

### **REVISITING THE RELATIONSHIP BETWEEN SOVIET UNION AND TURKEY IN THE EARLY REPUBLICAN PERIOD: THE NEGOTIATIONS ON 1927 TRADE AGREEMENT**

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## **INTRODUCTION**

The foreign trade relations between Turkey and the Soviet Union began in the early 1920s through port cities on the Black Sea and the Soviet trade institutions that were established in Istanbul, which was going through an armistice period. After the announcement of the Turkish Republic, the government officials did not permit conducting business solely with some specific individuals and legal institutions, which evoked the capitulations. This situation and other inconvenient Soviet trade methods led to problems between the Soviet Union and Turkey. Immediately after the friendship treaty signed between the two countries on March 16, 1921, the Russians tried to sign a trade agreement. Their aim, which failed later on, was the recognition of Soviet trade institutions in Turkey and their operation in accordance with the Soviet trade regulations. The entry of the Soviet goods was banned approximately six months after the closure of the Trade Agency in Ankara by the Turkish authorities in 1923. Therefore, the Russians, who realized that insisting on their own trade regime to be accepted and applied in Turkey was meaningless, organized their foreign trade relations with Turkey through two joint-stock companies. Under the supervision of the Arcos Company, many Soviet foreign trade institutions started their import and export activities in Istanbul. On the other hand, Russotürk conducted its business through partnerships with the Turkish capital. Turkey felt the need to find support in the international arena just before the Mosul agreement. In order to force the Soviets to negotiate trade deals, at first, tariff rates on Soviet imported products were increased. The

Soviet Union has welcomed the move by Turkey and considered the start of trade agreement negotiations would be in their best interest. The Soviet authorities primarily thought that their trade institutions would be recognized by Turkey and would be exempt from taxative and financial audits. Soviet diplomats, namely Chicherin, Krasin, Karahan, Surits, and Yuryev, always expressed positive and constructive views during the trade agreement negotiations among each other. It is clearly reflected in the Soviet archive documents that the Turkish side better prepared and joined the meetings that started on April 1, 1926. The request by the Soviets to have lower customs rates than that of the Lausanne Treaty was rejected by Turkey. The Turkish side, on the other hand, insisted on having a general list of export items for their merchandise and requested customs exemptions. Another important point to this particular trade agreement for Turkey was that this was the first time to discuss the quota. Turkey would use the lessons learned from these trade agreement negotiations in other trade agreements to be signed in the course of the following years. As a result of the trade agreement signed in 1927, Turkey guaranteed the volume of the exports to the Soviets, which would not cause a decline in total exports achieved before, in terms of US Dollar currency through a general merchandise list. As for the Soviet Union, they gained the right to establish seven offices in Turkey. Moreover, diplomatic immunity has been received for two of these offices. In addition, Arcos and Russotürk would be closed down by transforming into the Soviet Trade Agency, by which the foreign trade would continue with Turkey while avoiding their own foreign trade

regulations and laws. This study focuses on the negotiations of the trade agreement signed in 1927 in order to reveal that the economic and political relations between Turkey and the Soviet Union are indeed an inseparable whole. Since it is difficult to create an economic history narrative from the Turkish archives, this study concentrates on the notes taken during the negotiations of the trade agreement by Soviet diplomats. It is important to observe the mutual language used around a table by the Turkish foreign affairs officials and the Soviet bureaucrats and diplomats, how they tried to convince the other party while maintaining the interests of their own country, and to understand the amount and reasons for the concessions they made.

## **1. THE CALL FOR THE TRADE AGREEMENT NEGOTIATIONS**

In the continuation of the negotiations<sup>2</sup> for Mosul, the Turkish government desired to see powerful states as its allies, and therefore, raised the customs tariffs for the states, which didn't have trade agreement with Turkey. This move was perceived as an opportunity for the Soviet bureaucrats to sign a trade agreement for their own best interest. As the meetings for the trade agreement moving forward, the Mosul Pact was signed on June 5, 1926.<sup>3</sup> The economic attitude of the West in 1926 against the new Turkish Republic, gained a negative acceleration. Ankara, on the other hand, became more inclined to apply the etatism model in the national economy. Especially after the

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<sup>2</sup> İsmail Soysal, *Türkiye'nin Siyasi Andlaşmaları*, 1. Cilt, 2. Basım, TTK Yayınları, Ankara, 1989, p.305.

<sup>3</sup> *ibid.*, p. 306.

Lausanne agreement, the Turkish government understood better that the state should possess strong economic institutions. Turkish rulers desired the national bourgeoisie to be strengthened in the country at least as much as the foreign capital. The lucrative and considerably easy profits were no longer available in Turkey. However, the economic articles of the Lausanne agreement prevent the government's intervention in foreign trade in some countries.<sup>4</sup> Moreover, Minister of Trade Ali Cenani, the head of the committee that run the negotiations on behalf of the Turkish government with the Soviets, was suspended due to corruption allegations. Considering the two incidents together, the first one affected the change in Turkey's behavior while the negotiations were going on. Independent of the outcome of the Mosul issue, this change of behavior, which demonstrated Turkey's confidence in herself after the signature of the agreement, resulted in the prohibition of the trade of some goods that previously caused showdowns. In other words, whenever have they had a chance during the negotiations, neither of the two countries hesitated to pressure the other side in order to persuade their claims.

Imposing the Turkish government to grant diplomatic immunity to their trade institutions was one of the main goals for the Soviets. On the other hand, unwillingness to lose the Turkish markets was one of the priority thoughts of the Soviet bureaucrats. Therefore, they insisted on maintaining a certain level for the customs tariffs, which were valid right before the negotiations started. Moreover, every once

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<sup>4</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 13.

in a while during the negotiations, the Soviet side persistently asked for lower tax applications than the Lausanne customs rates<sup>5</sup>. In response to that, the Turkish side had to remind that the Lausanne Treaty did not offer benefits such as customs tax discounts to third countries. It appeared that the intention of hurting the ties of the Turkish liberal economy with the western countries was pushed to background, but the ever-vigilant Soviet specialists never gave up this agenda and consistently looked for opportunities.

The Turkish government and the merchants were very pleased with the trade of unlicensed goods, which started before the trade agreement negotiations. With respect to the Soviet Union, they did not mind this as long as the origin of the materials, which were imported from Iran using the same system, had the two countries as their origin at the same time. Despite all the measure taken, the invasion of the markets of the countries by the European goods could not be prevented. The import of unlicensed goods was considered as the main reason behind this situation.

Soviet Union wanted to end the tasks that were undertaken by the joint-stock incorporations, therefore, desired to cease the right to import unlicensed goods. On the other hand, experts were well aware of the fact that Turkish government was pretty satisfied due to the high profits gained by the Turkish merchants. Because of this, during

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<sup>5</sup>Through the 1923 Lausanne Trade Agreement, Turkey accepted against the signatory countries to lower some of the rates that have put up 12 times the tariffs of 1916 to 9 times of the same tariffs and not to change the current rates for five years. See: Tezel, p.160.

the negotiations, the Soviet Union side used the right to import unlicensed goods as a distraction for the Turkish side or as a leverage to earn other privileges. Other examples of this implementation were suggestions such as; transit commercial goods transfer right and application of lower taxes for some of the product ranges, during the talks about granting diplomatic immunity right to trade institutions by the Soviet bureaucrats.

The Soviet side considered 2<sup>nd</sup> clause of 16 March 1921 Moscow Agreement<sup>6</sup>, which granted transit commercial goods transfer right to the Turkish merchants, as the beginning of a sort of trade agreement. The Soviets obstructed the application of this clause until 1927, even it was mandatory to exercise it. As for the transit commercial goods transfer right, it was crucial for providing the needs of Iran and Afghanistan. Transit commercial goods transfer right of Turkish origin products, which would exclusively be delivered to Batum via land or sea, to Asian countries was reinstated by the 18<sup>th</sup> clause of the trade agreement. The following sections will describe how the Soviets forestalled the execution of this clause, which was observed as a benefit for Turkey. The Soviet statistics documents reveal that the transit trade was generally from Iran to Turkey and not in the opposite direction.

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<sup>6</sup> Gündüz Ökçün, Türk Anlaşmaları Rehberi 1920-1973, 1. Baskı, AÜSBF Yayınları, Ankara, 1974, p.7.

In the beginning of the negotiations that occurred in various times for the agreement to be signed, Turkey did not mind the proposal of applying European customs rates<sup>7</sup> to Turkish products because it was considered that a large portion of the trade was dealt through sea. However, the Soviet experts did not see the trade with Turkey from a single point only, as their Turkish equivalents do with regards to a limited geographic region. In a geographical area that the Soviets divided as west and east from the very beginning, it bears a great importance for them to have similar customs rates for land and sea transports. Because, Asian customs rates were applied to imported goods that delivered by land and this trade happened in the relations of Turkey with her east. When the Turkish bureaucrats understood the severity of the situation as the negotiations progressed and realized that import of unlicensed goods was not an option anymore, they asked for the Asian customs rates to be applied to their own merchandise, which was delivered either by the sea or the land. It was observed in the agreement negotiations that Turkey defended primarily the interests of West Anatolia since it did not conceptualize the domestic trade as the Soviet Union did. Yet, it was understood from the behaviors of Soviet Minister of Foreign Affairs, Chicherin that the Soviet Union were well-prepared for the situation from the very beginning. He supported the signature of the trade agreement with Turkey from the very beginning, and indicated in his letter to NKVT that he could give up the persistence on European customs rates if necessary.

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<sup>7</sup> High customs rates that Soviets applied to European goods arriving by the sea.

Both countries benefitted from the 1927 trade agreement. The Soviet Union may not have been very beneficial in terms of advancing their exports, but, they obtained the rights of their trade institutions including the diplomatic immunity, which was their ultimate goal. Looking from the Soviet side, they gained the transformation of Arkos to Trade Agency through the agreement. From that point on, Turkey was forced to accept a regime, which the foreign trade monopoly was managed by the state institutions that were in accordance with Soviet laws. A trade structure based on quotas was designated. This structure became a model for Turkey especially in its trade agreements signed with other countries during 1930s, when the netto-balance expressions were first discussed and in an economic environment with the endurance of global depression. On the other hand, the import of unlicensed trade ended with the agreement came into effect. In this case, the ties of merchants, who would import goods from Turkey to the Soviet Union, were cut off from the Soviet ports, and the purchases would be directly through the Trade Representation and the institutions connected to it. This situation affected the merchants in Eastern Anatolia the most while it was not a big trouble for the merchandise imported from the Western Anatolia. The merchants located in Artvin, Erzurum, and Kars, and sold goods to Soviets by land lost their chance to trade custom-free merchandise. The clauses in the agreement significantly altered the content and the direction of the trade. From then on, the purchases of the Soviet Union moved on to raw materials such as cotton and wool instead of consumer products.

Two more trade agreements, in 1931 and 1937, were signed between the Soviet Union and Turkey with different contents, though. The words describing the general characteristics of the 1927 agreement were quota, compensate, trade regime, and certificate of origin documents for the products while the most definitive word for the 1931 agreement is netto-balance. As for the 1937 trade agreement, it was built on “clearing rationale” in accordance with the spirit of the foreign trade regime of the period. It is natural that the trade agreements evolved differently throughout 1930s that determined the trade regime between the two countries regarding the conditions of the era. But what makes 1927 trade agreement special is that the Soviet Union was able to successfully impose its own institutions, which were in accordance with Soviet laws.

While the negotiations of the trade agreement were in process, the Treaty of Friendship and Impartiality was signed among the two countries on 17 December 1925. Later, as Kamuran Gürün claims, the Turkish-Soviet relations picked up to their highest in the period until 1933.<sup>8</sup> On the other hand, Soviet Union felt worried when Germany got involved with the 1 December 1925 Lokarno Safety System. The second clause in the agreement signed with Turkey stated that the countries would not get involved in the economic or financial agreements, which would be signed with a third country against themselves.<sup>9</sup> After the Treaty of Friendship and Impartiality, England

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<sup>8</sup> Kamuran Gürün, *Türk-Sovyet İlişkileri 1920-1953*, 1. Baskı TTK Yayınları, Ankara, 2010, p.109-118.

<sup>9</sup> İsmail Soysal, *Türkiye'nin Siyasi Andlaşmaları*, p.264-265.

applied fiscal measures against Turkey, which were considered as economic boycott, in order to detract Turkey from Moscow. On the contrary, the Turkish-Soviet relations surpassed these oppressions growing stronger let alone breaking down.<sup>10</sup>The political and economic relations between Turkey and Soviets enhanced with the agreement, which considered the benefits of both sides.<sup>11</sup> Soysal, who commented the previous statement, consecutively says that political approach continued to progress but this did not get a reflection on economic and commercial relations. He brings about some of the limitations that Soviet Union put on the imported goods from Turkey in 1926 as an example. He claims that trade agreement negotiations got started in November 1926 in order to solve this problem.<sup>12</sup> The negotiations got started with the initiative of Turkish side, not the Soviet Union in the first place.

The trade agreement negotiations, which continued since 1922 due to the concerns of Turkey on the foreign trade monopolization of the Soviet Union, were hardly completed in 1927.<sup>13</sup> 1927 agreement was signed as a result of years of negotiations of both countries.<sup>14</sup>Dimitir Vandov, furthermore, claims that this agreement legitimized the trade politics among the two countries and placed the flow of goods on a

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<sup>10</sup> Mehmet Perinçek, Atatürk'ün Sovyetlerle Görüşmeleri Sovyet Arşiv Belgeleriyle, 1. Baskı, Kaynak Yayınları, İstanbul, p.174.

<sup>11</sup> Rifat Uçarol, Siyasi Tarih,7. Basım, Der Yayınları, İstanbul,2008, p.750-751.

<sup>12</sup> ibid., p.750-751.

<sup>13</sup> Samuel J. Hirst,"Emperyalizm, Antiemperyalizm ve Sovyet-Türk İlişkilerinde Georgiy Çıçerin'in Rolü", Toplumsal Tarih, Sayı 299,2018, p.28.

<sup>14</sup> La Repeublique, 29 November 1926, see Vandov Dimitir, Atatürk Era Turkey-Soviet Relations, Kaynak Publications, 2014, 1. Baskı, İstanbul, p.225.

solid ground. Moreover, the author indicates that the Trade Agency in Ankara was given the authority to run the trade businesses on behalf of the Soviet government.<sup>15</sup> Vandov's book contains partially correct claims with some inaccuracies. Firstly, the trade between the two countries was already going on a legal and solid ground through Arkos and Russoturk joint-stock incorporations. Soviet Union was the side with problems regarding their laws. In addition, Soviet Union always conducted business through Istanbul branch of Arkos. The office in Ankara always had troubles with staff qualification and connections with merchant networks.

Various authors highlight that the foreign trade monopolization system of the Soviet Union was acknowledged by the Turkish side and this meant a big win.<sup>16</sup> As for Turkey, it was indicated that unlicensed importing rights for some specific goods<sup>17</sup>, customs tariffs, and significant advantages for the transportation of the merchandise was gained through the agreement. Moreover, it was remarked that this represents a model for being the first trade agreement signed by Turkey within the framework of mutual benefit and equality with other countries.<sup>18</sup> It was a very important achievement, in regards to Soviet Union, for rebuilding of the organizational structure due to establishing trade monopolization through the agreement. The actual achievement for the Turkish side was not the privileges provided for

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<sup>15</sup> Mosiyeev and Rozaliyev, see Vandov, p.43.

<sup>16</sup> Sovyet Bilimler Akademisi, Ekim Devrimi Sonrası Türkiye Tarihi, 1. Basım, Bilim Yayınları, Çev. A. Hasanoğlu, İstanbul, p.156-157.

<sup>17</sup> This section may have been incorrectly translated by the translator. Since, the right of unlicensed trade has ended with the agreement.

<sup>18</sup> Sovyet Bilimler Akademisi, p.156-157.

the customs taxes as mentioned above, but instead, having the Soviet Union obliged to purchase a particular consumption product group each year. This corresponds to 7.5 million US Dollars in its time, which was a considerable amount for Turkish suppliers.

The Arkos raid<sup>19</sup> in London followed by the arrest of some Soviet experts brought the trade relations of the Soviet Union and Britain to an end. Breaking ties with Britain, an important trade partner of the Soviet Union, caused the development of relations with other countries. In such a case it was seen that the Soviet Union making an effort to improve its relations with Turkey.<sup>20</sup> This interpretation was inaccurate, as the trade relations between the two countries were not examined in depth. First of all, negotiations on trade agreements did not begin with the initiative of the Soviet Union. Turkey raised the customs tariffs to force the Soviet Union a kind. After the Arkos raid, the trade agreement was already signed. Negotiations started long before the raid. What motivated the Soviet Union was to reorganize their institutions as they desired and to protect their economic interests. Tacibayev continued to say that the agreement was signed in order to prevent Turkey's entry into the UK's sphere of influence. According to him, this was also the cause of the Soviet Union to establish Trade Agencies in Eastern Turkey. The Soviet Union divided Turkey into two geographic areas, i.e. East and West, in their trade relations developed with Turkey since the beginning of the 1920s, and

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<sup>19</sup>As a result of the raid, on May 27, 1927, diplomatic relations between the Soviets and Britain were terminated for two years.

<sup>20</sup> Raşit Tacibayev, *Kızıl Meydan'dan Taksime*, 1. Baskı, Truva Yayınları, İstanbul, 2004, p.47.

organized its institutions accordingly. The only reason for the signing of the clause of establishing Soviet Trade Agency Offices in some provinces of Eastern Anatolia in the negotiations for the agreement was to prepare a legitimate basis for trade. Furthermore, even when the Erzurum Agency Office was opened in the region, Transcaucasia Trade Office continued to be affiliated to the Tbilisi Head Office and carried out import and export operations independently of the Istanbul Head Office of the Soviet Trade Agencies.

As a result of the treaty, the trade volume, which was 20,500,000 rubles at the end of 1923, increased to 101,900,000 rubles by 1928.<sup>21</sup>The trade between the two countries had doubled during the three-year period from the signing of the agreement to 1930.<sup>22</sup>It is difficult to say from statistics that the value of Soviet exports to Turkey doubled in a very short period. Because the figures include the values of products sent to the Near East, which was rapidly increasing at that time. Perhaps in order to perform a reliable derivation from Soviet statistics, a statistical review of imports from Turkey would be more accurate. The increase of the export tonnage from Turkey to the Soviet Union will be verified in this regard.<sup>23</sup>Turkey Statistics figures show that imports from the Soviets increased after the trade agreement, and doubled in a short period of time. Exports from Turkey have remained at the same level during that time.<sup>24</sup>Another

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<sup>21</sup> Vandov, p.226.

<sup>22</sup> Hakimiyeti Milliye Newspaper, Vandov, p.227.

<sup>23</sup>S.N. Bakulin and D.D. Muşistin, *Vneşniya Torgovliya SSSR za 20 Let 1918-1937 Statiçeskiy Spravoçnik*, 1. İzdeliya, Moskva, Mejdunarodnaya Kniga, 1939, p.248.

<sup>24</sup> Türkiye İstatistik Yıllığı, 1934

criterion to understand if the trade agreement caused an increase is the Soviet ships that visit the ports in Turkey and the loads they had left. The merchandise left by the Soviet ships that came to ports such as Istanbul, Izmir, Samsun, and Mersin increased after the date of the agreement.<sup>25</sup>

## **2. THE PATH TO THE TRADE AGREEMENT**

The delegation committee who were in Turkey for the pre-negotiations of the trade agreement on 22 March 1926 reported to Moscow that the main talks may not begin as planned on 29 March. They said that no document had been sent yet from the Soviet Ministries to work on. Moreover, the delegation stated that it would be better to send diplomatic couriers to Ankara every two weeks during the negotiations. On the other hand, Moscow informed the delegation that it would be good knowing on which customs rates Turkey would insist, and would express an appropriate opinion according to Turkey's persistence on the customs rates, European style or Asia style. On 24 March, Moscow informed the delegation in Turkey to cease the negotiations for 3 months duration because there were no developments and no text to have a signature on. But, on 31 March, Soviet Union Ambassador in Ankara Surits reported that they had met with Ali Cenani and decided to establish three commissions. He wrote that it was decided to establish sub-commissions as soon as possible for customs, law and special circumstances. Moreover, the Ambassador emphasized that he heard from the top authorities that

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<sup>25</sup> Türkiye İstatistik Yıllığı, 1930

Turkey was closer to the European rates out of the two possible customs tariff rates. On April 1, negotiations started again and the first topics discussed were the issue of unlicensed goods, general license status, and general quotas.<sup>26</sup>

The letter sent to the delegation from Moscow on 4 April stated that the priority issue for the Soviets was the restriction of the purchase of consumer goods. Moscow, disturbed by the uncontrolled import of consumer goods from Turkey, specifically wanted the addition of nuts within this group and similar products to the subjects of the talks. In the negotiations held on 7 April, the Turkish side stated that it would be unacceptable to remove unlicensed goods from the trade agreement negotiations. Consequently, the negotiations would be concluded and the Soviets would be blocked from achieving their main objective. During the negotiations, the delegation explained to the Turkish side that this issue could be overcome in two ways. First, it was proposed that the permission to bring unlicensed goods to a certain period of time, secondly, a constant change in the list of unlicensed goods and replacement of goods that the Soviets did not want or goods that would compete with their products was proposed.<sup>27</sup>

On April 8, the delegation reported to Moscow that the Turkish side continued to insist on the export of the unlicensed goods to the Soviets. As a reply, on 13 April, Moscow told to reiterate the two options that were mentioned before about the trade of unlicensed

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<sup>26</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>27</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

merchandise. In the negotiations that took place on the same day, a topic about the trade of unlicensed merchandise was not brought to table. However, the Turkish side underlined that they opposed the offer of a unilateral agreement clause by the Soviets in the trade of unlicensed goods. On April 29, Ali Cenani said that a system based on free trade should be established between the Soviets and Turkey, further suggested to create a general list in the negotiations on May 6. A special organization such as Chambers of Commerce would prepare a list to give out certificates of permission to transfer goods and having a fair share of these certificates among Turkish traders was considered benevolent. Determining the amount of licensed and unlicensed goods through these institutions was among the suggestions of Ali Cenani.<sup>28</sup>

The ambassador Surits coincided with İnönü at the Ministry of Foreign Affairs on May 4. During the instantaneous talk, Ismet Pasha indicated to Surits that it was essential for the Russians to help to create a commercial line between Iran, Afghanistan, and Turkey. Thus, the trade would be revived, if necessary, the Soviets would provide technical support to these countries to be stronger against the West. The priority condition was that the Soviets would reduce its customs duties to Turkey. In addition, Ismet Pasha expressed that he supported the petroleum-for-cotton swap, and if necessary, the Soviets could get all the cotton produced by Turkey in this way.<sup>29</sup>

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<sup>28</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>29</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 189.

Upon Ali Cenani's proposal on May 11, the trade of unlicensed goods through a certificate that Soviet Economic Institutions and the Turkish side would approve mutually was negotiated. Thus, the Turkish side tried to persuade the Soviets that it would prevent the entry of goods originating from other countries and facilitate the preparation of a general unlicensed list of goods that the Soviet institutions would be aware of and approve from the very beginning. In the telegram sent by Moscow to the delegation on May 12, it was stated that unlicensed goods preparation lists, which would be given as corresponding notes, would create a more productive working environment. In the same warning note, it was advised to the delegation to discuss the goods to be listed one by one and to accept Soviet goods in return. The underlined warning was that no other proposal would be accepted until the corresponding goods were put on the list.<sup>30</sup>

The establishment of a joint Soviet-Turkish foreign trade company, the establishment of a procurement commission, and establishing a trade agency by Turkey in Moscow were discussed during the talks on May 27.<sup>31</sup> In the meetings held on 30 May, the Turkish side requested from the Soviets the customs rates provided to Iran. As a response, the Soviet side requested customs rates lower than stated in the Lausanne Treaty, claiming that Turkey accepted to apply customs rates stated in the Lausanne Treaty to Germany and Finland. The Turkish authorities

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<sup>30</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>31</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 191.

said that there were no miracles to save Turkey from Lausanne's economic conditions.<sup>32</sup>

The Turkish side asked for the constituting of a procurement commission instead of establishing a Trade Agency during the talks in May. The Soviet side has stated that if this happens, the Soviet institutions would not be able to export their products.<sup>33</sup> The Soviets persistently demanded that the trade agreement be signed before the Mosul agreement.<sup>34</sup> The Turkish officials always put the Iran customs rates against the customs rates of the Lausanne Treaty during the trade agreement negotiations.<sup>35</sup> The Soviets offered to think of a formula for Turkey to discard the economic responsibilities that were mandated by the Lausanne Treaty if the Turkish side would provide customs rates lower than the rates stated in the Lausanne Treaty in the talks on May 30. Turkish officials stated that such a miracle was impossible to happen.<sup>36</sup>

Tevfik Rüştü, during the negotiations on 1 June, has said that Turkey would declare a single import list for all countries in the near future. The Soviet delegation, on the other hand, could not construe this upheaval. Moscow insisted on the negotiations over a general list. On the other hand, Turkey's Ambassador to Moscow, Zekai Bey<sup>37</sup>, narrated that the Soviet bureaucrats did not mention him of the general

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<sup>32</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 185.

<sup>33</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 272.

<sup>34</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 281.

<sup>35</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 289.

<sup>36</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 290.

<sup>37</sup> Turkish Ambassador in Moscow.

list, vows of the Soviet Union on the continuation of the export of the unlicensed goods and has been told by the Soviet Union that the trade would run efficiently without corresponding notes. Upon this reaction from Zekai Bey, in his letter Chicherin composed, he indicated that he had the chance to talk about the aforementioned topic with the Ambassador, but, the opinion of the Ambassador was to solve the current situation of trading unlicensed merchandise through an official channel and it was difficult to include it in the trade agreement. In the ongoing negotiations, Surits repeated the preparation of a general list, which was Ali Cenani's suggestion, in response to the proposal to start to work on the preparation of the list for unlicensed goods. Tefvik Rüşti said Turkey was not opposed to the general merchandise list if the currently prevailing commodity groups were not going to change. He also underlined that if the goods to be granted in the general list are of Turkish origin, they were in favor of the unlimited amount of imports. Surits, on the other hand, said that it was difficult to prepare the articles of the agreement in response to this offer.<sup>38</sup>

After the Turkish side insisted on entrance of the Turkish origin goods mentioned above to the Soviet territory without limitation on the quantities, NKVD<sup>39</sup> wanted to be informed whether the products to be included in the general list were produced in the Soviet Union, and if

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<sup>38</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>39</sup> Narodnih Komisarat Vneshnih Del

so, how they would affect the institutions and cooperatives in the country.<sup>40</sup>

During the negotiation meetings on June 6, Ali Cenani asked to have two separate lists, which were licensed and unlicensed import lists, for the Turkish originated goods to take part in the import list. Tevfik Rüştü, on the other hand, insisted on the same meeting that the import of unlicensed products should be one of the agreement clauses. He argued that it would be beneficial for traders if any public list to be created were similar to the unlicensed product list. The reservations of the Soviet authorities before this meeting have thus come to the table.<sup>41</sup>

In the meetings on June 10, the Turkish side expressed that they would accept the conditions for the Trade Agency demanded by the Soviet Union, but in return, a similar Trade Agency institution should be established in Moscow.<sup>42</sup> Moreover the Turkish officials indicated that the Trade Agency, which would act as a monopoly in the export of the Soviet products as well as the imports from Turkey, would be allowed if and only if a guaranteed general export list, which is to be determined on the currency of US Dollars, would be adopted by the Soviets. The main intention of the Soviet Union, while Mosul negotiations were ongoing, was to increase the foreign trade with Turkey as much as possible. In order to achieve this, it was decided to export consumer goods against raw materials in large quantities

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<sup>40</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>41</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 22.

<sup>42</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 27.

imported from Turkey. The first commodity that came to the Soviets' mind was petroleum products to be exported in exchange for cotton.<sup>43</sup>

On the report dated 19 June and signed by Surits and Yuryev, it was noted that negotiations were made for two agreements and four meetings were held for customs and laws articles till 6 June. The talks started with the clauses that Turkey proposed. Turkey first proposed the coefficient of 12 for the Soviet goods but later in the negotiations, the coefficient was decided to be 5. It was stated to the Soviet side that this was the customs rate applied in the Lausanne Treaty for export goods. Turkish side in the first talks asked the provision of Asian customs rates, especially the benefits given to Iran, to its merchandise that would be transported over by the sea. However, the Turkish side first asked for reduction of the customs tariff rates from European-style figures to Asian numbers for the goods in the provided list. Naturally, this proposal was immediately refused by the Soviet delegation without even negotiated.<sup>44</sup>

The Soviet side, who demanded lower customs tariff rates during the trade agreement negotiations than that of the figures indicated in the Lausanne Treaty, did not easily gave up its requests. Upon the sharp behavior of Tevfik Rüştü who told that this was not possible, if they cannot have lower the rates than that of the Lausanne Treaty, the Soviet bureaucrats wanted to have customs rates that could compensate this situation for the Trade Agency, which would be

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<sup>43</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 98-99.

<sup>44</sup> GARF, fon: 374, opis: 1, delo: 1874, p.61-68.

recognized by the Turkish side in the new agreement. In addition, if this ratio was not granted, the Soviets declared that this would be reflected to the list to be created for Turkish export goods. There upon Ali Cenani has proposed to create a list that covers the whole of Turkey export goods if permission for the import of the unlicensed goods was not to be granted. The quota at certain rates was requested to be provided to the goods in the list and thus the Turkish side sought to sell the goods to the Soviet Union in this way, which were not previously in the unlicensed goods category.<sup>45</sup>

Although Tefvik Rüştü Bey stated, during the ongoing negotiations, that he was in favor of trading unlicensed goods, if there would be a general list, he would be in favor of a list that overlapped the contents of the unlicensed goods. Moscow, in response, they would accept this request only if the sales to the Soviet institutions and cooperatives would occur in Turkey. Ali Cenani's general list proposal from the Turkish side was important for the Soviet Union, but they had reservations about affecting their trade relations with other countries due to the widening of range of Turkish export goods and felt afraid that the articles of the agreements with those countries would be breached. Therefore, from this stage of the negotiations on, Moscow has decided to continue the talks through the general quota and to restrict the groups of goods as much as possible.<sup>46</sup>

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<sup>45</sup> GARF, fon: 374, opis: 1, delo: 1874, p.61-68.

<sup>46</sup> GARF, fon: 374, opis: 1, delo: 1874, p.61-68.

On July 5, there were significant products, which could affect the export figures of Turkey, present among the list that NKVD sent and the list of unlicensed products that could be exported from Turkey to the Soviet Union. Different from before, products such as oranges, figs, lemons and walnuts were not included in the new list. For the general list, the Soviet Union proposed to release quotas every three months. The unused quotas would not be included in the next three-month list. Figures in the list of quotas provided by Turkey had been offered to be explained after an inspection of the Trade Agency. In addition, the Soviet Union announced that they would reject requests for exports outside this list approved by the Trade Agency. On the other hand, Turkish Ambassador to Moscow Zekai Bey opposed the preparation of a general list during the negotiations and favored the list of trading unlicensed goods. İsmet Pasha and Minister of Trade Rahmi Bey told Ambassador Surits that they agreed with this opinion.<sup>47</sup>

During the negotiations continued due to perseverance, on July 17, the Soviet side declared that they compared the general list with unlicensed goods exports list and that there was actually nothing changed. Furthermore, they claimed that due to the application of the general list, lower tariffs were applied to many goods. However, despite all this, the Turkish side resisted and did not accept the obligation that the merchandise in the general list could only be sold to the Soviet institutions and cooperatives by the Turkish merchants.

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<sup>47</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

But then, when this issue came to the table during the negotiations, The Soviet delegation said that the Turkish side should not be so persistent and deciding primarily on which list would be applied in the foreign trade among the two countries was more important.<sup>48</sup>

Before the talks on July 21, Moscow asked the Soviet delegation to declare and persuade the Turkish side that unlicensed merchandise exports was no longer possible. Furthermore, they wanted to deal only over the general list from then on informing that the list would be prepared for 6-month durations instead of 3-month periods. On the other hand, the Soviet experts underlined that the products of Turkish origin would be purchased only by the Soviet institutions and cooperatives in order to avoid violating the foreign trade laws of the Soviet Union. As August began, the Turkish side submitted its quota for the general list of goods to the delegation. The experts who examined the list reported that some quotas were kept unnecessarily high and that having few non-Turkish goods on the list drew attention. The Ambassador Surits, aware of the fact that some prohibited goods to be exported to the Soviets were also on the list, warned Minister Tevfik Rüştü Bey and said that the quotas in the general list were unnecessarily high. On top of that, Rüştü explained that they could divide the list into two parts as compulsory and non-compulsory to be purchased.<sup>49</sup>

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<sup>48</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>49</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

On August 11, Moscow let the delegation in Turkey know some of the decisions taken with the persistent pressure of the Turkish side. Firstly, the term general list had been requested to be changed to general quota. Within this list, certain restrictions would be imposed on exporting unlicensed goods. It has been decided that the quotas would be valid for a period of one year and that Turkish merchants would be free to bring and sell their goods at the specified rates. Quotas had decided to be determined according to the average of the sales of Turkish merchants and the purchases made by the Soviet institutions in the last two years from Turkey. Moscow further considered that distributing 50% of the Turkish origin goods that would be imported from Turkey among the Turkish merchants would be a good proposal.<sup>50</sup>

In the mid-August during the negotiations, the delegation requested a certain decision from Moscow regarding the contents of the list and which of them would be allowed to be imported without a license. Ali Cenani Bey explained the Ambassador Surits that taking the average of the last two years for the quota amounts has caused the Turkish side to be anxious. On the other hand, if there was such a list agreed on, he underlined that the Turkish side was in favor of not having any quota limitations. What the Turkish side really wanted was to obtain the authority of unlimited trade of the export goods to be included in a general list. Moreover, Surits indicated in his note to Moscow that he had a private conversation with Ali Cenani and learned that the main

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<sup>50</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

motivation of the Turkish side behind the signature of this trade agreement was to increase their export figures, and it would be meaningless to pursue the negotiations if the foreign trade numbers were to decrease after the agreement. The request of the Turkish side was to be able to sign an agreement on a general list where unlicensed exports of goods could be at the highest level.<sup>51</sup>

The general list sent from Moscow had disturbed the Turkish side as trade figures for the last two years would determine future foreign trade numbers. But the delegation claimed the exact opposite and defended that the concerns were groundless and the trade among the countries would prosper. The statement that the average to be used in the agreement would be determined from the maximum amounts rather than the minimum rates was the claim of the delegation that the Soviet-Turkish trade would increase in the following years. In the instructions from Moscow dated 20 August, it was explained that it was crucial to explain clearly to the Turkish side that the amounts of some products such as oranges and lemons to remain the same with the amounts on unlicensed goods exports list. If the provided amounts would not suffice and desired an increase, the Soviet authorities would evaluate such a request from the Turkish side.<sup>52</sup>

During the negotiations held on August 22, the Turkish side objected to decide on the products to be included in the general quota list based on the year before the start of the trade agreement negotiations.

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<sup>51</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>52</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

Because, during that year, the customs tariff rates applied to certain goods were raised, and in addition, the quantities sold in some products did not reflect the real values due to the shortage of foreign exchange. The Soviet delegation made the following proposal; first, the goods purchased by the Soviets in the last two years in large quantities would be analyzed, the goods that were not sold, or rarely sold, in the Soviet market would be removed from the list, and a proposal would be requested for the goods that are sold on the Caucasus border after checking them. Moscow urged the delegation to convince the Turkish side that Soviet economic and commercial institutions would, if necessary, encourage Turkish merchants. In this case, the Soviet side follows an indirect path for the Turkish side, saying that the volume of trade of the Turkish traders would increase, but actually tried to prevent the understanding of the foreign trade that the Soviet institutions would monopolize after the trade agreement.<sup>53</sup>

In the following meeting, Moscow warned the delegation in written saying that the quotas would be applied at the lowest rates because the main reservation for them was to keep import numbers at a stable level without an increase while achieving export increments. Therefore, they stated that their main desire situation was in favor of maintaining the foreign trade balance of imports and exports. On 28 August, the delegation came with another proposal. They suggested that it would be more appropriate to construct the trade through netto-balance as the foreign trade figures of both countries were aimed to be

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<sup>53</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

protected. The main concern of the Soviet delegation was the rise of the import of unnecessary goods from Turkey to the Soviet Union. The export amount considered firstly by the delegation for Turkey is about 6-7 million Turkish Liras. They also wanted the general list of quotas to be kept wide, thus arguing that the products that were not available in the Soviets should also be on the Soviet market.<sup>54</sup>

The delegation in Turkey warned by Moscow on September 1 that the ruble value of the total quota should not to exceed 6,000,000. In the second case, it was allowed to be 8,500,000 Liras and it was requested to be distributed as follows; 3,500,000 rubles on cotton, 1,100,000 rubles on valeksa and valoneya, 300,000 rubles on wool, 350,000 rubles on leather products, and 250,000 rubles on sesame. 3,000,000 rubles were asked for the remaining goods. In order to determine these products, it was asked to write to the institutions and cooperatives within the Soviet Union and it was said that it would be appropriate to give instructions to determine the necessary quantities. The proposal of 8,500,000 rubles relieved the delegation during the negotiations in Ankara. In fact, the foreign trade quota that the Soviet side really longed for was 6,000,000 rubles. If the Turkish side is successfully persuaded to a foreign trade regime based on netto-balance, the total trade limit may be reduced to below 6,000,000 rubles when import rates exceed exports.<sup>55</sup>

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<sup>54</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>55</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

On 24 September, the Ambassador Surits, reported in his telegram sent from Istanbul to Moscow that they reached an agreement on 41 of the 45 goods discussed. All goods except the shoes offered by the Turkish side were accepted by the Soviets. The general quota list would be determined according to the previous year and its total value would be 8,500,000 rubles. According to Surits, the total value of 41 goods was accepted not to exceed 4,858,350 Liras. It was decided to determine the quota of other goods in terms of tons. The mentioned goods were oranges, dried walnuts, figs and grapes. The Turkish side insisted that the value of the goods to be exported on tones should be 1,845,000 liras. The Soviet side, on the other hand, found this value very high, and their proposal was 1,076,000 liras.<sup>56</sup>

As the negotiations continued, the delegation resumed asking Moscow questions about the net-balance trade regime, while Moscow instructed that this phrase should not be used again. Also, the delegation in Turkey is told to explain clearly to the Turkish side that the prepared quota for products that are subject of foreign trade will be given solely to Turkish citizens and it will not be accepted that they remained at a constant rate. It was reported that 70% of the quota demanded by the Turkish side for merchants and 30% of the highest recommended rate for this commodity group for raw material export. In addition, Moscow gave instructions that the quotas should

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<sup>56</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

not exceed the limits of the agreement with the Germans, which should be kept confidential.<sup>57</sup>

After the talks on 14 and 17 October, Moscow asked the delegation why they had not been informed of the agreed amounts. They agreed that the sum of 8,500,000 rubles and they noted that they thought this amount would be calculated on the basis of the price in Soviet markets or stock exchanges. He stated that the quotas given were portioned as consumption and raw materials and that these instructions were given in advance. While preparing quota lists, they stated that goods such as leather, foam, pumice, poppy, wool knitted sweater, and seeds were excluded from the list and would be added if necessary. It was also emphasized that salt would only be brought over certain regions and roads. For yarn, an additional substance of 55 tones could be included in the agreement if insisted. 1,800,000 rubles designated as orange, lemon and other goods and they allowed the Turkish side to distribute this amount as they wished. The Delegation noted that Moscow's requests would ignite a new debate with the Turkish side. They also underlined that it was not possible for the Turkish side to accept a trade quota to be determined according to the Soviet stock exchanges.<sup>58</sup>

The most troubling issue for the Turkish side in determining the general quota; the market quantities and prices of products to be exported to the Soviets in the later periods cannot be predicted,

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<sup>57</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

<sup>58</sup> GARF, fon: 374, opis: 1, delo: 1874, p.1-13.

therefore, the Soviet Union would avoid confirming the quotas as much as possible in the future. Therefore, the Turkish side insisted as much as possible that the quotas of the products should be determined on the basis of tonnage in trade agreement negotiations. Moscow had informed the delegation that even if there was an agreement on tonnage, the total value of it could not be more than 8,500,000 rubles in monetary terms. When Moscow wrote that it should be determined on stock exchange prices, the delegation had serious concerns about how they would explain this situation to the Turkish side. On the other hand, the Turkish side objected to the proposal by saying that the value given in rubles would be reduced when the value was converted into Turkish Lira and the export figures would decrease on the amount. Realizing that the export rates will fall because of the new offer, Turkish diplomats stated that they would not accept an agreement and would not sign it if that would provide export rates below the previous year's rates. Although the ruble and the Turkish lira seem to be equal on the official exchange rate, the Turkish side, which was aware of the difficulty of extracting foreign currency from the Soviet Union, had begun to insist on calculating the quotas in Liras rather than the rubles. Upon this proposal, the delegation wrote to Moscow; the already presented proposal for Turkey's exports by the Soviet side was 4,858,350 Liras in total for the four products. When the remaining products were added, the bid of 6,703,350 would be sufficient and they explained that it would be easy to convince the Turkish side to this figure instead of 8,500,000 Turkish liras.<sup>59</sup>

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<sup>59</sup> GARF, fon: 374, opis: 1, delo: 1874, p.13-14.

The Turkish side, which did not accept the quotas tried to be determined from Moscow, also did not accept the quota amounts calculated not the purchase but the current market prices. The delegation realized that it would be easier to convince the Turkish side to the figures of 6,703,350 Liras for the export amount, which was problematic on which value it would be determined. However, when Moscow saw that the figures to be calculated over the sales prices would reach 13,000,000 rubles, they understood that the difference between imports and export would increase further. The Turkish side, which also did not accept the agreement on Soviet market prices, realized that the negotiations would encounter a blockage at this point. On the other hand, the Trade Agency would check whether or not the products exported from Turkey exceeded the quotas set for Soviet markets. The sum of the licenses given to Turkish merchants together with the trade volumes carried out by the Soviet Institutions were accepted as the actual data to base the control on total amount of quota.<sup>60</sup>

The main content of imports of the Soviets from Turkey consisted of raw materials in the period from 1922 until trade agreement negotiations. The purchase of consumer goods, on the other hand, has been less profitable especially for Soviet trade institutions. 65-70% of the quotas proposed during the negotiations for the agreement were again raw materials. In the opinion of the Soviet experts, after the recognition of the Trade Agency, the majority of the export goods

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<sup>60</sup> GARF, fon: 374, opis: 1, delo: 1874, p.14-15.

would be through the institutions. Within 1925-1926, 67% of the exports from Turkey by the Soviet institutions were raw materials. 90% of cotton, 92% of valoneya and valeksa, and 59% of sesame were made through Soviet institutions. This made Moscow happy because it reduced the outflow of foreign exchange. On the other hand, since the trade was carried out not only by Turkish merchants but also by Caucasian traders, regardless of the content of exports, foreign exchange outflow was not at undesirable levels. It is known that the loss of foreign currency will not necessarily be prevented due to the fact that Arcos has an efficacy of 25% in the remaining 25-30% trade in goods. The delegation reported back to Moscow that their proposal would considerably reduce Turkey's exports. Moscow did not pay much attention to the trade on the Caucasus border since the considerations of Moscow were always based on trade data over the Black Sea.<sup>61</sup>

During the meetings, the delegation reported to Moscow that the Turkish side was preoccupied with the following questions; firstly, the Turkish side strongly opposed the diplomatic immunity of all employees engaged in trade operations. Secondly, all Soviet institutions would be registered as private or legal entities permitted by the Turkish commercial law and they would not engage in any kind of action out of these laws. Third, and most importantly, it had always been the intention not to allow any foreign trade monopoly to restrict the export of Turkey. The Soviet side, on the other hand, did not intend

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<sup>61</sup> GARF, fon: 374, opis: 1, delo: 1874, p.15-16.

to lose its monopoly in foreign trade, although it did not disclose it to the Turkish side. If the Turkish side did not agree to this, they considered making a second proposal to establish an institution where Turkish merchants could also be partners.<sup>62</sup>

In the talks that occurred on May 11, 1926, Ali Cenani clearly told the delegation that it was not possible to grant concessions to Soviet state institutions. He further explained that the Soviet Trade Agency could work as a subsidiary of the Soviet Embassy but would not be allowed to engage in trade or set up an office. The Soviet economic institutions would be able to trade as long as they are registered in Turkey, and when needed, the Soviet buying commissions could join the government tenders. In such a case, Ali Cenani said that Soviet institutions would have diplomatic rights and would be exempt from tax. The buying commissions that can operate in Turkey would be able to work as a foreign trade organization according to the wishes of the Soviet Union, but they would be able to deal with business in Turkey as they wish. The delegation did not accept these proposals and replied that they had to wait for instructions from Moscow.<sup>63</sup>

Moscow, on the reply dated 17 May, wrote that the Turkish side should be convinced regardless of what it takes in order to gain the legal status of the Trade Agency. Turkey's desire to build a similar institution in the Soviet Union with the same rights was rejected because it would breach the limits of the agreement negotiations based

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<sup>62</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

<sup>63</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

on the German treaty. Since the same right was not granted to the Germans, it was not accepted by Moscow to give this privilege to the Turkish side. Tevfik Rüştü said in the meeting on June 1 that Turkey could create a common institution with NKVT. Moreover, he explained that it was not possible to provide customs tariff rates lower than that of Lausanne Treaty as NKVT requested. Because providing these rates to the Soviet Union would put Turkey in a difficult situation in the international arena for it would be mandated to provide it to all the countries that signed an agreement with. Surits replied that this would not be necessary because of the structure of the Trade Agency, which would be considered as a separate institution due to the Soviet foreign trade organization. Subsequently, Rüştü stated that they would pave the way for import and export transactions of the Soviet Trade Agency but the institution would not be authorized to deal business. He further stated that the Turkish side no longer opposed the Agency to set up an office but it would not be exempted from the obligation to register with the chambers of commerce. Moreover, Tevfik Rüştü said the right of diplomatic immunity would only be granted to the branch in Ankara and this branch would be considered as commercial attaché office by Turkey. Therefore, the Ankara office would not be able to deal with commercial transactions. In return, Rüştü asked from the Soviet Union to establish a trade attaché of Turkey in Moscow.<sup>64</sup>

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<sup>64</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

The Delegation explained to Moscow the reason for the extended duration of the negotiations on 5 June; the cause shown for it was looking at the event by the Turkish side as the creation of a monopoly of foreign trade based on diplomatic immunity. This was one of the greatest concerns of Turkey for the Trade Agency's setting up an office. The Turkish side wanted to protect the rights of its merchants and to market the export goods to the Soviets without being caught in a foreign trade barrier. In this case, the delegation said that it would be more appropriate to maintain the previous situation and to trade with the documents that were given through the consulates. On June 10, the Turkish side stated that there would be no diplomatic immunity in the final decision because it reminded them of the capitulation rights. However, during the talks on June 11, Tevfik Rüştü stated that they were ready to accept the following for the Trade Agency (only for Ankara and Istanbul offices); Turkey would grant the Trade Agency all the diplomatic immunity rights with the condition of being connected to the laws of Turkey in all operational procedures, and the Soviet institutions would continue to conduct its activities in Turkey in accordance with the laws of the Soviet Union.<sup>65</sup>

During the meetings held on 9 and 17 July, Zekai Bey brought diplomatic immunities back to the table. In Moscow, he had been told about the German solution that the Soviet Union tries to build the treaty on, further noted that worse conditions than those should not be offered to Turkey. He argued that it would be more appropriate to meet

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<sup>65</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

the export conditions in the German solution and to do so without granting diplomatic immunity. According to the Ambassador Surits who met with Tevfik Rüştü and Ali Cenani on 21 July, the Turkish side continued to insist on the German solution. However, Surits stated that he did not disclose the secret terms of the treaty signed with Germany to Rüştü and Ali Cenani. To tell the truth, Surits also did not know the hidden articles of the Soviet trade agreement with Germany until then. In his letter to Moscow, he requested an explanation and asked what kind of path he should follow.<sup>66</sup>

During the talks on 3 August, when the Turkish side disclosed its own articles to the Soviet side, the delegation said that the proposal contained worse conditions than the agreement with Germany. The article that brought the two sides the closest among the suggested articles was the rights to be provided to the Soviet Trade Agencies that would be established in Turkey. However, they requested that it should be consulted with them about the locations of the offices to be opened. Moreover, the Turkish side requested to include in the agreement articles to establish a Turkish Trade Agency in the Soviet Union similar to the Soviet trade institutions that would operate in Turkey. On the other hand, the delegation said that the warehouses to be opened for commercial use should also be included in diplomatic immunity, but the Turkish side had blankly declined this proposal. Despite Tevfik Rüştü's statements indicating that this situation reminded of them about the capitulation rights and would cast shadow

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<sup>66</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

on the independence of the Turkish courts, Surits underlined that the Soviet Union would not give up their desire for immunity provided that they would adhere to the Turkish laws.<sup>67</sup>

As it can be understood from the instructions given by Moscow to the delegation on August 13, the negotiations over the rights given similar to Germans would only be possible if they were granted the right to open offices at their preferred locations. On the other hand, the delegation was asked to give up the requests regarding the warehouses. Talks have continued to move on over the right of immunity, but when the date showed August 18, Moscow administration ordered to close down Arcos and other Soviet institutions and cease economic relations with Turkey if this issue would prolong any more. It was understood that the Soviet Union would give up the right of immunity on the warehouses but they did not intend to waiver of privileges to be gained from the courts in Turkey. Tevfik Rüştü explained to the delegation that the immunity to be given to the Soviet Trade Agency on September 5 would not bind court decisions and the Agency would not be exempted from tax and that only real estate tax would not be charged from the commercial buildings where the Soviets operate. At the meeting, which was held on September 7 for over 3 hours, including Surits and Tevfik Rüştü, almost reached an agreement on immunity and other issues, while

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<sup>67</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

Rüştü requested a branch of the Industry and Maadin Bank to be opened in Moscow.<sup>68</sup>

According to the delegation's report dated September 11, the most important hidden article of the Soviet-German agreement was that the Soviet Trade Representation in Germany was exempt from financial control. The Turkish side realized in advance that the proposals made by the Soviet diplomats were paving the path of being exempt from financial control. However, in the following days, both sides reached a better point than that of the German solution. First of all, the offices in Ankara and Istanbul were granted by immunity. It was allowed to open eight Soviet commercial offices, including the previous ones. However, it was not allowed Turkey to establish a trade office in Moscow having the same rights. On September 28, Moscow opposed to having the financial control article included in the publicly available agreement. It was asked to be written in the confidential clauses and demanded taxation to be through the flat-rate method if there would be financial control.<sup>69</sup>

In October, the Soviet Union, who wanted the German solution to be applied exactly, asked for the right of encryption to be given to the employees of the Soviet Trade Agency, which had not been mentioned before and was not included in the German solution. Even the delegation in Turkey was surprised with this demand and they stated that the Turkish side would definitely reject this proposal, and

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<sup>68</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

<sup>69</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

further argued that it would be better to agree with the agreement text prepared by the Turkish authorities. At the meeting held on 4 October, Tevfik Rüştü hold the floor and began his speech by saying that trying to avoid financial control and asking to obtain the right of encryption by the Russian employees harmed good negotiations, and further added that a trade agreement to be signed with the Soviet Union was not crucially important for Turkey as a minor threat. The Delegation's warnings of Moscow did not yield any results, and moreover, it was said that this was a normal request and that it was included in the German agreement. But the Turkish side changed its mind after these meetings and it is indicated that the immunity rights would be given to the Ankara office only. Rüştü commented that the continuing persistence on the German agreement articles and the encryption issue as follows; if the German agreement was to be discussed, then all articles must have been reviewed again. In other words, all items would be passed over one by one from the beginning.<sup>70</sup>

At the meeting held on October 14, Moscow informed the delegation that the request for encryption rights should be given up, but that the insistence on being exempt from financial control should be pursued. Tevfik Rüştü stated that the trade agreement to be signed with a country that was not playing a major role in Turkey's import and export merely had political significance. He also suggested that if there would be an agreement for financial control, the Turkish Ministry of Finance would meet with the Trade Agency every year in order to

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<sup>70</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

determine the tax rates. On the other hand, the Soviet side stated that taxation would be acceptable if the tax rates would be flat-rate charges, i.e. 2.15 liras per thousand liras. The biggest factor of the Soviet side having this idea is that the majority of the goods exported from Turkey to the Soviet Union were passing through the Soviet economic institutions.<sup>71</sup>

The Soviet side before the start of the trade agreement negotiations was pursuing customs tariff rates which would be lower than that of the rates provided by Turkey in the Lausanne agreement. A second list would be given to Turkey to provide the lowest customs tariff rates applied to European goods, and other commodity groups, excluding yarn and woven fabrics, that demanded discounts would be inserted into it. For transit goods, only Turkish origin goods brought by Turkish merchants would be allowed and it would be proposed to be transported over Asian territories.<sup>72</sup> Later on, a Soviet expert named Maers, who was in charge of the agreements with the Eastern Countries, stated in a report within the internal correspondence of the Ministry of the Foreign Affairs that providing customs rates lower than or similar to the rates stated in the Lausanne Treaty by the Turkish officials would have no meaning for the commodity groups of the Soviet Union exported to Turkey. From this correspondence, it can be deduced that it was merely political to demand customs rates under the Lausanne Treaty.<sup>73</sup>

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<sup>71</sup> GARF, fon: 374, opis: 1, delo: 1874, p.17-27.

<sup>72</sup> GARF, fon: 374, opis: 1, delo: 1874, p.33.

<sup>73</sup> RGAE fon: 413, opis: 5, delo: 1604, p. 379.

Although the agreement, which was signed on 11 March 1927, was seen as a political success in Moscow, many difficulties were encountered in its application. Reconciliation of two different foreign trade regimes took time. Trade Agencies of the USSR took advantage of diplomatic privileges and immunities. Business deals done by the people who were a mix of merchants and state officials caused some confusion, albeit under Turkish law. It was sometimes suspected that they were participating in actions other than trade deals. These difficulties were inevitably reflected in political relations.<sup>74</sup>

Through the trade agreement with Turkey signed with Turkey in 1927, it was allowed the Soviet Union to open Trade Agencies in 7 locations within the boundaries of Turkey.<sup>75</sup> With the agreement, Turkish merchants received customs tax reductions for products defined in two lists. The goods received the following customs tax deductions: Onion 100%, fresh grape 98.75%, wine grape 98.5%, orange 60%, lemon 75%, shelled fruits 91.5%, butter 100%, cheese 100%, fresh oil 100%, live animal 100% , silk cocoon 100%, untreated leather 100%, olive oil 20%, cotton 100%, wool 100%, and goat wool 96%.<sup>76</sup> Furthermore, with the agreement, the Trade Agency in Ankara was accepted as part of the Embassy. It had been confirmed by the Turkish authorities that two offices, including the Soviet Han in Istanbul, received certain privileges. The director and two assistant deputies of

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<sup>74</sup> Suat A. Bilge, *Güç Komşuluk İlişkileri Türkiye Sovyetler Birliği İlişkileri 1920-1964*, 1. Baskı, İş Bankası Yayınları, Ankara, 1992, p.104.

<sup>75</sup> İstanbul, İzmir, Trabzon, Mersin, Erzurum, Konya and Eskişehir.

<sup>76</sup> J. Goldstein et al, *Enstsiklopediya Sovetskovo Importa Tom Perviy, Izdatestvo Narkomtorga SSSR i RSFSR*, 1929, p.82.

the embassy would be able to benefit the immunity rights granted to the embassy officers. On the other hand, the Turkish side would determine the origin of the products to be exported from the country by means of certificates to be obtained from the chambers of commerce.<sup>77</sup>

The Soviet Union would then make a similar trade agreement with Iran. Negotiations began on 16 June 1922 to sign a trade agreement with Iran, but failed to reach a conclusion. However, in July 1924, a mutual point was reached. But, the Iranian government had not ratified this agreement. Finally, on 1 October 1927, a trade agreement was signed. The agreement became effective in 1 March 1928. The agreement included the expression netto-balance. Secondly, Iranian merchants have been granted unlicensed export rights worth of 50 million rubles. The goods subject to foreign trade were divided into two categories, i.e. 60% industrial and 40% consumer goods.<sup>78</sup>

### **3. CONCLUSION**

Both countries benefited from the trade agreement signed in 1927. Turkey guaranteed to export a designated list of products amounting to 7.5 million US Dollars to the Soviet Union each year just when the Great Depression years were on the doorstep while the Soviets gained the right to establish Trade Agency offices in various cities of Turkey. The foreign trade of the Soviet Union, which previously was carried out by joint-stock companies such as Arcos and Russotürk, continued

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<sup>77</sup>[https://www.tbmm.gov.tr/tutanaklar/KANUNLAR\\_KARARLAR/kanuntbmmc005/kanuntbmmc005/kanuntbmmc00501046.pdf](https://www.tbmm.gov.tr/tutanaklar/KANUNLAR_KARARLAR/kanuntbmmc005/kanuntbmmc005/kanuntbmmc00501046.pdf)

<sup>78</sup> Goldstein et al., p.81.

after the trade agreement was signed through the Trade Agency, which was formed by the transformation of Arcos. Arcos and also Russotürk left the Trade Agency a heritage, which was a trade organization to the Middle East and the Balkans carried out through Turkey. With the end of NEP in the Soviets a year later, the contents of the trade carried out by the Soviets, especially with eastern countries, started to change. The new economic institutions created after the NEP was ended could easily be organized under the umbrella of the Trade Agency. Thus, foreign trade between the two countries became more stable. Moreover, the increase in the amount and value of the foreign trade between the two countries after the trade agreement is reflected in the statistical information. As understood from the archive records, the contents of the negotiations that occurred during the trade agreement set an example to the future trade agreements with other countries in the period affected by the Great Depression in Turkey in the following years. Quotas and compensated trading methods are two key words of the trade agreement that expired in 1930, and this system would evolve into the netto-balancing system in later trade agreements.

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## **ELECTRONICAL RESOURCES**

[https://www.tbmm.gov.tr/tutanaklar/KANUNLAR\\_KARARLAR/kanuntbmmc005/kanuntbmmc005/kanuntbmmc00501046.pdf](https://www.tbmm.gov.tr/tutanaklar/KANUNLAR_KARARLAR/kanuntbmmc005/kanuntbmmc005/kanuntbmmc00501046.pdf)

## **CHAPTER 13**

### **IDENTIFYING THRESHOLD CONCEPTS IN LEARNING ABOUT LINGUISTICS BY UNDERGRADUATE STUDENTS**

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## INTRODUCTION

One main recurrent issue in teaching and learning is threshold concepts, which was defined by Meyer and Land (2003, p.1) as

...akin to a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress. As a consequence of comprehending a threshold concept there may thus be a transformed internal view of subject matter, subject landscape, or even world-view. This transformation may be sudden or it may be protracted over a considerable period of time, with the transition to understanding proving troublesome.

In general terms, threshold concepts are concepts that students find difficult to understand when studying them. Several characteristics of threshold concepts have been identified in the literature. One of the most important features is that knowledge can be *troublesome*, that is, not only learners often find knowledge to be unfamiliar and difficult to understand but they may also struggle to understand new information. According to Kent (2016), “these concepts are fundamentally troublesome in that encountering them is challenging and unfamiliar, and mastery does not simply progress from “difficult” to “easy” but instead involves a continual struggle. A student may even feel hostile towards threshold concepts because of the discomfort involved in the transformation” (p. 2). The second feature of a threshold concept is *transformation*. Once learners understand new

information, they experience a change in their perceptions. “This new knowledge also results in an ontological shift, resulting in transformed attitudes, values, or understandings” (Kent, 2016, p. 2). The third feature is *integration*, which means that in understanding the threshold concept, learners connect new knowledge with previously learned knowledge. “This integrated nature of threshold concepts speaks to how these difficult concepts are critical for the mastery of the subject: if not understood, threshold concepts may snowball, leading to further conceptually difficult material and compounding the troublesomeness of learning” (p. 3). The fourth feature of threshold concepts is that knowledge is *irreversible*, which suggests that once learners learn the new knowledge, they do not easily forget it. The fifth feature is *boundedness*, that is, threshold concepts are unique to a discipline (Meyer and Land, 2003). Recently, new features such as *reconstitution*, *discourse and liminality* (Baillie, Bowden, & Meyer, 2013; Meyer & Land, 2005) have been added. *Reconstitution*, which is similar to transformation, involves a change in the learner’s identity; *discourse* involves the integration of new aspects of language upon understanding new knowledge; and *liminality* suggests that learners make use of both previous and new knowledge of the concept.

Researchers investigated threshold concepts in various disciplines such as mathematics (Meyer & Land, 2003), statistics (Cope & Byrne, 2006), economics (Davies & Mangan, 2007), biology (Taylor & Cope, 2007), grammar (Orsini-Jones, 2008) and computer science (Zander et al., 2008). Due to the fact that this is a new field of study, linguistics

has not been considered from this perspective and that its core areas tend to pose challenges for many students, the purpose of this study is to determine the threshold concepts in linguistics and improve the teaching and learning of the concepts. The following section reviews previous studies carried out with regard to the threshold concepts theory. The methodology section provides information about the participants, setting and the instruments used. This is followed by data analysis, results, and a discussion of the study.

## **1. LITERATURE REVIEW**

Being a new area of research, studies conducted in threshold concepts have increased since their introduction by Meyer and Land in 2003. Whereas some researchers (Townsend, Hofer, Hanick, & Brunetti, 2016) explored whether the threshold concepts model has been useful or not, others (Kiley and Wisker 2009; Moffat & McKim 2015; Shanahan et al., 2006) focused on identification of threshold concepts in certain disciplines and revising curricula and methods of teaching to help students better understand concepts. For example, Townsend et al. (2016) used the Delphi Method to obtain the opinions of experts on threshold concepts in information literacy. The experts were asked to write their responses to two questions, one of which was concerned with whether or not threshold concepts approach is useful in information literacy and the second one was about identifying and evaluating threshold concepts. The responses were then collected, summarized and given to the experts' peers for feedback. After reading their peers' responses, the experts were asked to reach an

agreement on their responses to the questions. The results showed that the experts found the threshold concepts model useful.

Regarding the identification of threshold concepts, Kiley and Wisker (2009) carried out a study to identify threshold concepts at the doctoral level. The authors conducted interviews with 65 supervisors from countries such as Jamaica, Australia, England, Malaysia, New Zealand and Trinidad. The participants' areas of expertise were in engineering and information technology, humanities, social sciences and the sciences. 26 supervisors discussed in writing the challenges faced by research students and 39 were interviewed regarding learning challenges and successes. Based on the results, six threshold concepts (argument; theorising; framework; knowledge creation; analysis and interpretation; and paradigm) were identified at the doctoral level. Several studies revised ways of teaching a subject, which was already established as a threshold concept. For instance, after identifying "subjective interpretation" as a threshold concept, Moffat and McKim (2015) conducted an experimental study involving 59 undergraduate students in an art course at a New Zealand university. Instead of learning the concept in the classroom, the students watched parts of one of Shakespeare's plays, "the tempest" at a theatre where they also had an opportunity to participate in the play. Based on the data collected from focus groups and surveys, the results showed that the students understood the concept to a certain extent, suggesting that they crossed the threshold. According to the students, their active involvement in the play had a positive influence on their understanding of the concept. Another study was a quantitative one

that investigated variation in the acquisition of opportunity cost (Shanahan et al., 2006), which had been identified as a threshold concept in economics by Meyer and Land in 2003. Data were collected from 431 undergraduate students enrolled in an economics course in Australia. In order to determine the extent to which the students understood the concept, the authors had the students take a multiple-choice exam and a literacy test in economics. The findings showed a weak relationship between understanding the concept and academic grades. Moreover, being an international student or not and previous knowledge of mathematics affected the results. Whereas having previous knowledge of mathematics had a positive influence on the test results, being an international student had a negative one. In another study, Scheja and Pettersson (2010) explored whether or not undergraduate students were able to cross two threshold mathematical concepts, *limit* and *integral*. Data were collected via interviews with four Swedish students who were asked to respond to questions about the concepts in detail. The students' responses to the questions showed that "the transformative aspects of threshold concepts may be conceptualised in terms of shifts in students' contextualisations allowing the development of conceptions at different levels of abstraction simultaneously interacting to shape students' awareness of the ways of thinking and practicing in the subject" (p.221). In an action-research, Peter, Harlow, Scott, McKie, Johnson, Moffatt, and McKim (2014) identified threshold concepts in several fields and investigated the effect of revised curriculum based on the identification of threshold concepts. The data were collected

from undergraduate students majoring in English, management communication, doctoral research and writing, and electronics engineering through a survey, which asked the students' opinions about the topics that were troublesome in their fields and their initial exposure to the topics. Based on the students' responses, the curricula for the courses were revised. At the end of the semester, a survey asking for the students' reactions towards the revised curricula was administered. Focus-group discussions were also conducted with the students and the lecturers. The authors found that students' learning improved as a result of revised curricula.

It is important to mention that the threshold concepts theory has been criticized regarding its definition and the criteria a concept has to meet in order to be considered as a threshold concept. As Rowbottom (2007, p. 264) stated,

'Threshold concept' is not an expression used in everyday language. It is a technical term introduced in the academic literature in order to facilitate understanding and empirical research. Therefore, clarity and uniformity of usage among researchers is to be expected. Yet, a few critics have vigorously formulated convincing arguments to the effect that this is not the case. Despite the fact that advocates of threshold concepts have had adequate time to respond to the criticism they have failed to do so'.

## **Research questions**

The present study aims to find answers to the following research questions:

1. Which areas of a linguistics course carry threshold concept properties?
2. Which morphological, semantic, phonetic and syntactic topics constitute difficulties for the students in a linguistics course?

## **2. METHOD**

### ***2.1. Participants, setting, and data collection***

The study was conducted at a government university in Turkey. The participants were second-year college students enrolled in the English Language Teaching program in the Department of Foreign Languages. The aim of this program is to train students to be English language teachers. Initially, 80 students participated in the study. However, 3 were excluded from the study due to the fact that they returned incomplete forms. The final number of participants was 77 (56 females, 21 males). The participants ranged in age from 18–19 at the time of the study. Prior to the study, the students in the program had taken “Linguistics I” in the Fall semester and “Linguistics II” in the Spring semester. The topics covered in “Linguistics I” include morphology, syntax, semantics, and phonetics, whereas “Linguistic II” covers language acquisition, computational linguistics, sociolinguistics, and language change.

The participants completed a questionnaire adapted from Holloway, Alpay and Bull (2010). The questionnaire was translated into Turkish, the students' native language. The questions were administered to the students at the end of the Fall semester when they had been already introduced to the core concepts of linguistics such as syntax, semantics, phonetics and morphology. The questionnaire consisted of two parts. The first part included 15 statements about the threshold concept properties of each of the above-mentioned 4 core areas of linguistics. The statements measured students' levels of understanding of the concepts. The participants rated each statement on a 5-point Likert scale in terms of 1 (agree), 2 (strongly agree), 3 (neutral), 4 (disagree), and 5 (strongly disagree).

Each item in the questionnaire was related to one of the threshold concept properties, which are *transformation*, *troublesome nature*, *integration*, *irreversibility* and *levels of understanding*. Items 2, 8 and 11 were related to *transformation*, items 4 and 14 were about *troublesome nature*, items 5, 6, 9, 12 and 13 were about *integration*, items 10 and 15 were about *irreversibility* and items 1, 3 and 7 were about *levels of understanding*. Following Holloway, Alpay and Bull (2010), statement 7 "I still don't really understand the concept", which indicated understanding was used to screen the results. So, if participants agreed, strongly agreed or were neutral about statement 7, their responses to other statements were not included in the analysis. This way properties such as irreversibility of understanding, integration of other concepts and transformation of understanding

could be tested. After the screening, the following sample sizes emerged:

1. Morphology– 32 participants
2. Semantics – 24 participants
3. Phonetics –26 participants
4. Syntax – 20 participants

The second part of the questionnaire consisted of several major topics about each of the core areas of linguistics. The participants were asked to choose the topics that they still had difficulty in understanding. The participants completed the whole questionnaire in 15-20 minutes. As mentioned earlier, the questionnaires that were incomplete were excluded from the study. Those that were included in the analysis were fully completed.

### **3. RESULTS**

Descriptive statistics was used to analyze the students' opinions on the threshold properties of the four linguistic areas. The following table shows the mean scores and standard deviations of the items related to morphology.

**Table 1.** Descriptive Statistics: Threshold Concept Properties Of Morphology (N=32)

Items	M	SD
7. I still don't really understand morphology.	3.94	1.01
14. Understanding morphology was troublesome.	3.75	0.91
12. It was difficult to see how morphology fits in with any other subject.	3.42	1.13
15. I will have to keep refreshing my understanding of morphology.	3.10	1.23
5. Morphology is something that I now see as central to the subject but which was rather tricky to understand.	3.05	1.19
11. Understanding morphology made me feel more like a linguist.	2.57	1.30
2. Understanding morphology has transformed the way I think about the subject.	2.37	1.31
8. Understanding morphology felt quite emotional like 'aha now I see what that means.	2.20	1.32
3. I could apply morphology to new areas.	2.15	1.14
9. Lots of things came together to understand morphology.	2.07	1.10
10. I would find morphology hard to forget now I understand it.	1.98	1.06
13. Once I understood morphology other previously studied subjects made more sense.	1.87	1.21
6. Understanding morphology caused me to better see some relationships between topics that I could not see before.	1.80	1.07
1. I would find morphology easy to explain to another student.	1.65	0.89
4. Morphology wasn't any more difficult to understand than any other concept.	1.62	0.82

As Table 1 shows, the learners did not necessarily consider morphology as a threshold concept. The following table demonstrates the results for semantics.

**Table 2.** Descriptive Statistics: Threshold Concept Properties Of Semantics (N=24)

Items	M	SD
14. Understanding semantics was troublesome.	3.63	0.99
12. It was difficult to see how semantics fits in with any other subject.	3.5	1,00
7. I still don't really understand semantics.	3.47	1,08
5. Semantics is something that I now see as central to the subject but which was rather tricky to understand.	2.78	1,20
15. I will have to keep refreshing my understanding of semantics.	2.76	1.28
11. Understanding semantics made me feel more like a linguist.	2.59	1,18
2. Understanding semantics has transformed the way I think about the subject.	2.24	1,21
8. Understanding semantics felt quite emotional like 'aha now I see what that means.	2.11	1,26
3. I could apply semantics to new areas.	2.04	1,15
6. Understanding semantics caused me to better see some relationships between topics that I could not see before.	2.02	1,18
10. I would find semantics hard to forget now I understand it.	1.91	1,00
9. Lots of things came together to understand semantics.	1.89	1.14
13. Once I understood semantics other previously studied subjects made more sense.	1.89	1.14
4. Semantics wasn't any more difficult to understand than any other concept.	1.74	1.12
1. I would find semantics easy to explain to another student.	1.59	0.93

As shown in table 2, the participants agreed with the statements “semantics is something that I now see as central to the subject but which was rather tricky to understand” ( $M = 2,78$ ) and “I will have to keep refreshing my understanding of semantics” ( $M = 2.76$ ), suggesting that semantics can be considered as a threshold concept to a certain extent.

**Table 3.** Descriptive Statistics: Threshold Concept Properties Of Phonetics (N=26)

Items	M	SD
7. I still don't really understand phonetics.	3,38	1,14
12. It was difficult to see how phonetics fits in with any other subject.	3,11	1,35
4. Phonetics wasn't any more difficult to understand than any other concept.	3,05	1,56
1. I would find phonetics easy to explain to another student.	2,55	1,37
8. Understanding phonetics felt quite emotional like 'aha now I see what that means.	2,32	1,15
10. I would find phonetics hard to forget now I understand it.	2,18	1,22
3. I could apply phonetics to new areas.	2,16	1,09
15. I will have to keep refreshing my understanding of phonetics.	2,11	1,22
9. Lots of things came together to understand phonetics.	2,00	1,10
5. Phonetics is something that I now see as central to the subject but which was rather tricky to understand.	1,98	0,95
11. Understanding phonetics made me feel more like a linguist.	1,98	1,08
14. Understanding phonetics was troublesome.	1,95	1,23
13. Once I understood phonetics other previously studied subjects made more sense.	1,91	1,03
2. Understanding phonetics has transformed the way I think about the subject.	1,84	1,07
6. Understanding phonetics caused me to better see some relationships between topics that I could not see before.	1,74	0,90

As for phonetics, the participants disagreed with the statement “phonetics wasn't any more difficult to understand than any other concept” (M = 3.05) and agreed with “phonetics is something that I now see as central to the subject but which was rather tricky to

understand” (M = 1.98) and “understanding phonetics was troublesome” (M = 1.95). The responses to the statements also demonstrate that phonetics carries properties of a threshold concept. Similar results were also obtained for syntax.

**Table 4.** Descriptive Statistics: Threshold Concept Properties Of Syntax (N=20)

<b>Items</b>	<b>M</b>	<b>SD</b>
12. It was difficult to see how syntax fits in with any other subject.	3,49	1,16
7. I still don't really understand syntax.	3,16	1,22
14. Understanding syntax was troublesome.	2,90	1,35
11. Understanding syntax made me feel more like a linguist.	2,74	1,39
2. Understanding syntax has transformed the way I think about the subject.	2,72	1,25
15. I will have to keep refreshing my understanding of syntax.	2,62	1,26
5. Syntax is something that I now see as central to the subject but which was rather tricky to understand.	2,54	1,43
8. Understanding syntax felt quite emotional like 'aha now I see what that means.	2,41	1,27
10. I would find syntax hard to forget now I understand it.	2,33	1,00
1. I would find syntax easy to explain to another student.	2,23	1,11
3. I could apply syntax to new areas.	2,23	1,18
4. Syntax wasn't any more difficult to understand than any other concept.	1,92	1,26
6. Understanding syntax caused me to better see some relationships between topics that I could not see before.	2,05	1,05
9. Lots of things came together to understand syntax.	1,87	1,10
13. Once I understood syntax other previously studied subjects made more sense.	1,87	1,17

The results showed that the participants agreed with the statements “understanding syntax was troublesome” (M = 2.90), “I will have to keep refreshing my understanding of syntax” (M = 2.62) and “syntax is something that I now see as central to the subject but which was rather tricky to understand” (M = 2.54). The following table presents the results from the second part of the survey in which the participants were asked to put a check next to the topics only if they had difficulty understanding them. Otherwise, they were asked to leave them blank.

**Table 5.** Perceptions Of Learners On The Difficulty Of Morphological Concepts

Topics in morphology	No. of participants responding	% of total participants
Rules of word formation	8	10.3
Derivational morphology	8	10.3
Bound and free morphemes	5	6.4
Content words and function words	3	3.8
Inflectional morphology	3	3.8

When morphological concepts were considered, “rules of word formation” and “derivational morphology” constituted the most difficult areas for the students.

**Table 6.** Perceptions Of Learners On The Difficulty Of Semantic Concepts

Topics in semantics	No. of participants responding	% of total participants
Compositional semantics	20	25.9
Entailment	19	24.6
Ambiguity	14	18.1
Semantic rules	9	11.6
Truth	7	9.09

With respect to the concepts in semantics, the majority of the students found “compositional semantics” and “entailment” the most problematic concept, followed by ambiguity, semantic rules, and truth.

**Table 7.** Perceptions Of Learners On The Difficulty Of Phonetic Concepts

Topics in phonetics	No. of participants responding	% of total participants
Prosodic features	23	29.8
Manner of articulation	18	23.3
Phonetic symbols and spelling correspondence	18	23.3
Place of articulation	15	19.4
The phonetic alphabet	11	14.2

Regarding phonetics, according to most of the students, “prosodic features”, “manner of articulation”, and phonetic symbols and spelling correspondence” were the most difficult concepts.

**Table 8.** Perceptions Of Learners On The Difficulty Of Syntactic Concepts

Topics in syntax	No. of participants responding	% of total participants
Constituents and constituency tests	23	29.8
Structural ambiguities	18	23.3
Heads and complements	14	18.1
Phrase structure trees and rules	13	16.8
Syntactic categories	6	7.7

As table 8 showed, the participants had the most difficulty understanding “consituents and constituency tests” and structural ambiguities” followed by “heads and complements”, “phrase structure trees and rules”, and syntactic categories.

#### **4. DISCUSSION AND CONCLUSION**

The purpose of this study was to determine the threshold concept properties of some of the core areas of linguistics as perceived by 2<sup>nd</sup> year college students enrolled in the English Language Education program at a government university in Turkey. The results showed that whereas morphology did not have the characteristics of threshold concepts, semantics, syntax and phonetics did. Regarding semantics, the participants agreed with statements 5 and 15, which addressed integration and irreversibility, respectively. As for syntax, there was an agreement on the statements 14, 15, and 5, which are associated with troublesome nature and irreversibility. Finally, in the area of phonetics, the participants agreed with 5, 4, and 14, which examined integration and troublesome nature.

First, as the results showed, morphology could not be classified as a threshold concept. This may be attributed to that fact that all Turkish learners are introduced to Turkish morphology starting from elementary school. Turkish and English morphology differ in many ways, but since Turkish learners are exposed to morphological concepts and terminologies throughout primary and secondary school, it may be the case that they managed to apply their morphological knowledge in Turkish to English morphology. However, this was not the case with the other linguistic areas. The finding that syntax may be classified as a threshold concept may be due to the fact that unlike morphology, none of the students had acquired any background knowledge about syntax before taking the linguistics course. As a

result, they had difficulty in understanding certain theories, terms and abstract concepts such as phrase structure rules and constituents and constituency tests, as the results obtained from the second part of the study suggested. Further, differences between Turkish and English in terms of word order contribute to the difficulty of learning about syntax in English. As mentioned previously, the findings related to phonetics and semantics also point to the possibility that they may be threshold concepts. Once again, the reason why the participants perceived these concepts as difficult may lie in the fact that they were introduced to them for the first time. The students may have had some basic knowledge about semantics in high school, however, some certain semantic theories are not covered in depth like they are covered in a linguistics course.

Because threshold concepts are difficult to teach and learn, some implications for teaching and learning them need to be addressed. In view of the difficulties encountered by the learners in the study, it is important to consider several important issues that may affect and shape the methods that educators use when teaching subjects that have threshold concept properties. First, it is important to determine whether or not learners have any pre-requisite knowledge about the subjects they are learning. Once what learners know and can do are established, the concept can be taught through familiar vocabulary, topics, images, appropriate activities and tasks. As Orsini-Jones (2008, p.220) suggested “in order to help students to cross threshold concepts, it is necessary to devise student-centered activities that allow them to engage both in individual and collective reflection on

the troublesome knowledge encountered.” In the case of linguistics, learners can apply what they know in their native language to the target language. Second, since such concepts are difficult to learn, learners should not be expected to understand the concept the first time they are exposed to it. Instructors should check for understanding from time to time and give learners opportunities to practice the new concept. Further, the teaching and learning of threshold concepts require collaboration with learners, which can provide better descriptions and understanding of why students perceive certain topics difficult. Constant communication with learners is also needed until they have internalized a threshold concept successfully. By doing these, educators can gain a better understanding of what it takes to understand a threshold concept, and more importantly, provide teaching that is more meaningful for both learners and themselves.

The study has several limitations. One of them is the use of a self-report questionnaire, which may have led the students to overestimate or underestimate their understanding of certain topics related to the linguistic concepts. Therefore, further research could also include interviews with students to gain a detailed understanding of the difficulties they are facing with regard to the concepts in linguistics. Another limitation has to do with the small sample size. Future studies can include more participants so that the results can be generalized to English language learners. It is important to note that the present study focused only on identifying whether or not certain areas of linguistics could be considered as threshold concepts for the students taking the course. Future studies can also consider revising the method and

approaches used to teach the linguistic concepts that cause difficulty in understanding and examining the effects of revised curriculum on understanding of such concepts.

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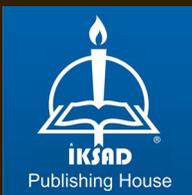
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