



## THE ANALYSIS FOR THE EFFECT OF CLASSROOM CLIMATE ON THE STUDENTS OF PRIMARY TEACHING

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### Abstract

The aim of this study was to investigate the effect of classroom climate on students' success. Teacher support, involvement, affiliation, order&organisation, competition, rule clarity in the classroom affect the success of students in accordance with this main aim. This research has analyzed the effect of classroom climate on success in terms of secondary school they graduated from. This study has been realized on scanning way via quantitative method. The fourth grade students of primary education department from faculties of education at fourteen universities constitute the total field of survey. 788 students have taken place in the survey. The data collection of survey is "the Scale of the Effect of Classroom climate on Success". This data collection tool has been developed by Moss and Trickett (1974) and adapted to Turkish by Kısakürek (1985). The researcher has rearranged it by scanning the field. In the survey the secondary schools they graduated from have been studied with t-test. In accordance with the findings, Graduates of Anatolian Teachers High School, compared to graduates of other schools, consider "teacher support", "involvement", "affiliation", "order & organization" as more significant. Students' views about "competition" and "rule clarity" have no significant differences in accordance with school types they graduated. Consequently, classroom climate is affected by many variants, so in education programmes the effect of every variant (sex, demographic specifications of students, the attitude of academics, formal and informal demands of students, the location of the institution) should be considered in the applications concerning classroom climate. In addition, the importance of subdimensions of classroom climate especially affiliation and rules should be asserted. While designing and developing educational programmes, learning-teaching atmosphere, relations in the classroom ambient, task orientation, innovation and rules briefly, the quality of atmosphere should be heeded as much as content and method.

**Keywords:** Classroom Climate, Success, Learning Environment, Hidden Curriculum, Primary Teachers.

### SINIF ATMOSFERİNİN İLKÖĞRETİM ÖĞRENCİLERİNİN BAŞARISINA ETKİSİNİ İNCELEME

#### Öz

Bu araştırmanın amacı, sınıf atmosferinin öğrenci başarısına etkisini tespit etmektir. Bu amaç doğrultusunda, sınıf atmosferinin öğrenci başarısına etkisi öğretim elemanı desteği, katılma, kişilerarası ilişkiler, ders düzeni, rekabet ortamı ve kuralların belirginliği açısından öğrencilerin mezun olduğu okul türüne göre değerlendirilmektedir. Bu araştırma tarama modelinde olup nicel yöntemle gerçekleştirilmiştir. Araştırmanın evrenini 14 üniversiteye bağlı eğitim fakültesinde öğrenim gören sınıf öğretmenliği dördüncü sınıf öğrencileri oluşturmaktadır. Araştırmaya 788 öğrenci katılmıştır. Araştırmanın veri toplama aracı "Sınıf Atmosferinin Başarıya Etkisi Ölçeği"dir. Bu ölçme aracı Moos ve Trickett (1974) tarafından geliştirilmiş, Kısakürek (1985) tarafından Türkçeye uyarlanmış ve araştırmacı tarafından alanyazın taranarak yeniden düzenlenmiştir. Öğrencilerin mezun oldukları ortaöğretim kurumlarının sınıf

atmosferinin başarıya etkisi t - testi ile incelenmiştir. Anadolu Öğretmen Lisesinden mezun olan öğrenciler, diğer ortaöğretim kurumlarından mezun olan öğrencilere göre başarının artmasında öğretim elemanı desteği, katılma, kişilerarası ilişkiler ve ders düzeninin “daha önemli” olduğunu düşünmektedir. Mezun oldukları ortaöğretim kurumuna göre öğrenci görüşleri, rekabet ve kuralların belirginliği konusunda anlamlı farklılık göstermemektedir. Sonuç olarak, sınıf atmosferi birçok değişkenden etkilenmektedir. Bu nedenle eğitim programlarında sınıf atmosferi ile ilgili uygulamalarda her bir değişkenin (cinsiyet, öğrencilerin demografik özellikleri, öğretim elemanı tutumu) etkisi dikkate alınmalıdır. Ayrıca sınıf atmosferinin alt boyutlarından özellikle kişiler arası ilişkiler ve kuralların önemi üzerinde durulmalıdır. Eğitim programları tasarlanırken ve geliştirilirken içerik ve yönetime odaklanıldığı kadar öğrenme öğretme ortamı, sınıf ortamındaki ilişkiler ve kurallar kısaca atmosferin niteliği de (örtük program) önemsenmelidir.

**Anahtar kelimeler:** Sınıf Atmosferi, Başarı, Öğrenme Ortamı, Örtük Program, Sınıf Öğretmeni.

## 1. Introduction

### 1.1 Problem

The climate in a classroom is an important clue of the relationships, the learning-teaching process and the learning level in that classroom (Selçuk, 2000: 66). It is known that student involvement, task orientation, teacher support, rules, course layout, competition, affiliation, innovation, lecturer directing the student to the course and similar factors are influential in creating the classroom climate and the effects of students' learning life on their achievements (Moos, 1978; DeYoung, 1977; Kısakürek, 1985; Fraser and Fisher, 1982; Baek and Choi, 2002; Dorman, 2003; Mucherah, 2003). DeYoung (1977) defends that as the classroom climate approaches the ideal state, involvement and regular attendance can be assured and the class will achieve a more functional image. According to Fraser (2002:4), the classroom climate influences the student attitudes, learning motive and speed. In this regard, it is important to evaluate the quality of the classroom climate, where the cognitive and affective (attitude, self-sufficiency, motivation, anxiety) gains are formed, in line with the students' perceptions (Fraser, 2001).

The experimental results attained from research dealing with the relation between classroom climate and success reveal that a classroom climate perceived as positive by the students will increase success. Dorman and Adams (2004) investigated the relation between learning mathematics and academic efficiency in Australia and Britain, whereby their research found a high level relation between classroom climate and academic efficiency. Another finding of the same study is that the teacher support, task orientation, cooperation and equality are related to the level of academic efficiency. Academic efficiency is only possible if the classroom climate is functional and provides task orientation and equal responsibility. The student's perception of their own academic level in school and particularly

in classroom is of significance in terms of classroom climate. Therefore, the lecturer needs to establish quality learning-teaching environments providing task orientation and involvement to help student succeed. Consequently the cooperation, harmony, teacher support, students' coalescence with each other, task orientation and equality are notable in the development of student self-confidence.

Another study on the issue was conducted by Dorman (2008: 429-444). It consists of more than 2.211 students in Queensland Catholic schools and state schools. The study assesses the effects of factors such as class level, subject and type of school on the classroom climate. According to the findings of this study, the subject and type of school are not relevant to the classroom climate. Another finding of the study is that the class level of students positively influences the affiliation, cooperation, prominence of class rules and individualism, but has a negative effect on task orientation and lecturer's control. As the students' class level rises, affiliation, cooperation, prominence of rules and individualism increase, although task orientation and lecturer's control decline.

According to Moos (1979), the environment has a character of its own and bears traits as an individual does. We can mention the supportive, strict or restrictive features of the environment, similar to personality traits of individuals. Moos (1979) suggests that affiliation in the social environment take place in three fundamental levels, which are individual development, continuity of the system and change. The atmosphere of the environment forms in conjunction with these three levels. This feature of social environment also applies to teaching and learning environment (cited by Baek and Choi, 2002:126). With respect to Moos' classification (1979), the classroom climate includes qualities such as teacher support, students' communication and interaction with each other in terms of affiliation; competition, individual interest and skill and similar traits in terms of individual development; environment's openness to innovation, rules etc. in terms of continuity and change (cited by Baek and Choi, 2002; Dowdel, 2007). In a positive classroom climate, students' perception towards the aforementioned aspects is expected to be positive (Fraser and Fisher, 1990: 9).

Demirel (2003: 113-114) expresses that in-classroom interaction is among the significant factors of the process of attaining learning experience. He indicates, therefore, that further studies are necessary on the effects of student-lecturer interactions on school achievement in the learning and teaching process. Furthermore, the author underlines hints, reinforcer, feedback, correction and student involvement as the features boosting the quality of teaching service; while pointing to the importance of student-lecturer relationship in the in-classroom interaction process for establishing the atmosphere having a positive or negative effect on learning. The classroom

climate can be established through the teaching approach, method and technique utilized by the teacher as well as the tools-equipment and art of communicating. This constitutes the aspect of the learning-teaching program that is not in written form, but can be relayed and can even be more effective than the written teaching program. Thus, the program development experts must consider the tacit program as a functional elements of teaching program in their work to develop teaching program development (Portelli, 1993; Demirel, 2007; Yüksel, 2002; Tuncel 2007). Hidden curriculum should evaluate the “organizational”, “relation-based” and “institutional” aspects. The classroom climate is present in the hidden curriculum as a significant factor. Time, means, materials, effective realization of gains are related to the classroom climate and therefore to the hidden curriculum. Hence, it is important to take the hidden program as the basis for the implementation of the teaching program.

According to Fraser (2001: 8), a student spends approximately 20.000 hours in the classroom from elementary school till the end of higher education. It is clear that the students and teachers share an important amount of time in the classroom. During the course of this shared time, the lecturer’s behavior, in addition to several factors, has a strong influence on the learning-teaching atmosphere (Fisher, Fraser and Cressweel, 1995). On the other hand, Getzel and Thelen (1960, cited by, Koul and Fisher, 2004) indicate that student-lecturer interaction in the classroom also plays an important role in the cognitive and affective development of learners. Similarly, Wubbels and Levy (1993, cited by, Koul and Fisher, 2004) also cited that lecturer’s behavior in the classroom, adequacy and role are influential on the student motivation and play an important role in defining the lecturer and student perceptions and the quality of the classroom climate. Kısakürek (1978: 60; 1983: 221) suggests that student traits, motivation, skills and requirements constitute the fundamental criterion for developing teaching programs in higher education. In line with the authors’ views, the students’ perception of learning-teaching environment is believed to be highly significant in bolstering the student’s success.

In higher education level, while ensuring the student’s individual and social development is among the objectives, academic achievement is usually a prioritized objective. Therefore, it seems important to determine and positively develop the views on classroom climate of prospective teachers preparing to be primary teachers responsible for elementary education during the education process prior to service. In this respect, this study finds it substantial to determine the classroom climates that include the teacher candidates receiving education in the education faculties of various universities as well as their opinion on the effects of relevant variables on the student achievement. Kısakürek (1985) argues that most of these studies focus on answering the question, “how can we teach better?” This study aims to determine the quality of learning-

teaching environment, in addition to helping to answer this question. For this purpose, the problem in this study is to determine the effect of classroom climates on the success of candidate primary teachers (primary teaching senior year students) receiving education in the education faculties of various universities. By extension, this study investigates whether the effects of learning-teaching environment on the achievement of primary teacher candidates vary according to the secondary education institution the candidate graduated from.

### **1.2. Sub-Problems Of The Study**

The aim of this study is to determine the opinions of students on the effects of classroom climate on achievement. In line with this general aim, the answers to the following sub-problems were sought:

The perception of senior primary teaching students of the effects of classroom climate on success,

Teacher support, Involvement, Affiliation, Course Order, Competition, The clarity of rules in effect in the classroom,

1.Does it show variation according to the type of secondary education institution the candidate graduated from?

### **1.3. Definitions**

Classroom climate: The impression, feeling, appearance and ambiance felt in the classroom. How the students feel in the learning environment with regard to class dynamics and arrangements for the living quality in the classroom and learning-teaching environment in relation to the students' experiences of their learning lives.

Success: Evaluation according to a number of independent variable(s) influencing the learning environment. Achieving the desired outcome, reaching the objective, attaining the desired result.

Environment: Education faculties that students were placed after choosing a higher education institution for the purpose of becoming classroom teachers.

Learning-Teaching Environment: All of the natural, physical, social and cultural conditions in the accommodating the elements of communication in the classroom.

Hidden Curriculum: The entirety of the program beyond the official education program, created through the information, skills, attitudes and experience, without specific rules.

Primary Teacher: The expert that develops the cognitive, affective and psychomotor learning areas of students during the course of the learning process comprising the first five years of elementary education.

## 2.Method

### 2.1. Research Model

This research adopts the descriptive model. The aim of this study is to investigate the effect of classroom climate on the students' success. In line with this purpose, the study aims to determine whether there is significance difference among the opinions of candidate teachers graduating from Anatolian teacher high school or other secondary education (general high schools, vocational high schools) in primary teaching senior year with respect to "Teacher support", "Involvement", "Affiliation", "Course Order", "Competition" and "Clarity of Rules".

### 2.2. Population And Sample

The population of this research consists of primary teaching senior year students in the education faculties of state universities located in 14 provinces in seven geographic regions of Turkey during the 2009-2010 academic year. In this study, the sample was taken in a size believed to represent the population, due to the difficulty of reaching the entire population, time limitations and economic reasons. The multi-stage sampling method was applied in the study to represent the population. The following steps were followed in sample selection: All provinces of Turkey were divided into analogous sub-populations and included in the sample on the rate they are represented in the population. For this purpose, the population Turkey was categorized into seven layers, based on the seven geographic regions consisting of provinces with similar geographic features. For the selection of provinces to be included in the sample from each geographic regions, the existence of two universities in the concerned region was essential.

**Table 1.** Provinces And Universities Selected As Sample According To Regions

Universities	Region	City	Date of Foundation
Dokuz Eylül University, Buca Education Faculty	Aegean Region	İzmir	1982
Adnan Menderes University, Education Faculty		Aydın	1992
Marmara University, Atatürk Education Faculty	Marmara Region	İstanbul	1982
Kocaeli University, Education Faculty		Kocaeli	2000
Çukurova University, Education Faculty	Mediterranean Region	Adana	1982
Mehmet Akif Ersoy University, Education Faculty		Burdur	2006
Karadeniz Technical University, Fatih Education Faculty	Black Sea Region	Trabzon	1982
Rize University, Education Faculty,		Rize	1998
Ankara University, Education Science Faculty	Central Anatolia Region	Ankara	1964
Niğde University, Education Faculty		Niğde	2006
Yüzüncü Yıl University, Education Faculty	Eastern Anatolia Region	Van	1982
Kafkas University, Education Faculty		Kars	1998
Dicle University, Education Faculty	South East	Diyarbakır	1982
Adıyaman University, Education Faculty	Anatolian Region	Adıyaman	1997

**Table 2.** Total Student Numbers, Collected Data And Response Rates Of Primary Teaching Senior Year Students In Education Faculties

Universities	Count of students	Number of participating students	Percentage of participation (%)
Dokuz Eylül University, Buca Education Faculty	153	55	36
Adnan Menderes University, Education Faculty	83	55	66
Marmara University, Atatürk Education Faculty	155	46	46
Kocaeli University, Education Faculty	82	70	85
Çukurova University, Education Faculty	180	41	23
Mehmet Akif Ersoy University, Education Faculty	160	60	38
Karadeniz Technical University, Fatih Education Faculty	175	50	29
Rize University, Education Faculty,	105	64	61
Ankara University, Education Science Faculty	60	50	83
Niğde University, Education Faculty	90	65	72
Yüzüncü Yıl University, Education Faculty	124	61	49
Kafkas University, Education Faculty	90	54	60
Dicle University, Ziya Gökalp Education Faculty	102	52	51
Adıyaman University, Education Faculty	106	65	61

In the fourth phase, the size of the sample to represent the population was determined. The aim was to reach all of the primary teaching senior year students in the sampled faculties. Therefore, no additional sample was selected. Table 2 shows the total number of primary teaching senior year students in education faculties, as well as the collected data and response rates. A total of 788 students participated in the study. The rate of response in the study is 47%.

**Table 3.** The Frequency and Percentage Of The Personal Information Of Primary Teaching Senior Year Students In Education Faculties

Variable	Level	N	%
<b>Gender</b>	Woman	443	56.2
	Man	345	43.8
<b>Type of schools</b>	Anatolian High Schools	91	11.5
	Others(General highschools,Vocational high schools, etc.)	697	88.5
<b>Universities</b>	Ankara University Education Science Faculty	55	7.0
	Adıyaman University, Education Faculty	55	7.0
	Adnan Menderes University, Education Faculty	46	5.8
	Çukurova University, Education Faculty	70	8.9
	Dicle University, Ziya Gökalp Education Faculty	41	5.2
	Dokuz Eylül University, Buca Education Faculty	60	7.6
	Kafkas University, Education Faculty	50	6.3
	Karadeniz Technical University, Fatih Education Faculty	64	8.1

	Kocaeli University, Education Faculty	50	6.3
	Marmara University, Atatürk Education Faculty	65	8.2
	Mehmet Akif Ersoy University, Education Faculty	61	7.7
	Niğde University, Education Faculty	54	6.9
	Rize University, Education Faculty,	52	6.6
	Yüzüncü Yıl University, Education Faculty	65	8.2
<b>Regions</b>			
	Aegean Region	106	13.5
	Marmara Region	115	14.6
	Mediterranean Region	131	16.6
	Black Sea Region	116	14.7
	Central Anatolia Region	109	13.8
	Eastern Anatolia Region	115	14.6
	Southeastern Anatolian Region	96	12.2
<b>Total</b>		<b>788</b>	<b>100</b>

As is seen in Table 3, the distribution of senior year students taking part in the study according to the respective geographic region is as follows; 106 (13,5%) in Aegean Region, 115 (14,6%) in Marmara Region, 131 (16,6%) in Mediterranean Region, 116 (14,7%) in Black Sea Region, 109 (13,8%) in Central Anatolian Region, 115 (14,6%) in Eastern Anatolian Region, 96 (12,2%) in Southeastern Anatolian Region.

### 2.3. Effects of Classroom Climate on Success Data Collection Tool and Development

Based on the general categories utilized in the Classroom Climate Tool developed by Kısakürek (1985), Moos, Trickett (1974, 1987), a data collection tool was developed. With this data collection tool, the effects of classroom conditions on the students' success are assessed by the students themselves (Kısakürek, 1985). The Classroom Climate Data Collection Tool comprises eight sub-dimensions (Involvement, Relationships, Teacher support, Direction to Course, Competition, Course Order, Clarity of Rules, Innovation) and thirty four items. The Classroom Climate Scale developed by Moos and Trickett (1974, 1987) contains nine dimensions: Involvement, Feelings of Enjoyment, Teacher's Support, Task Orientation, Competition, Order and Organization, Clarity of Rules, Teacher's Control and Innovation. Each dimension contains ten items (Chavez, 1984: 10).

Since the Classroom Climate data collection tool was developed in 1985, the existing dimensions and items were revised by the researcher in consideration of the literature, creating an item pool comprising 55 items. All dimensions comprising the "Effect of Classroom Climate on Success" data collection tool and the internal consistency of the data collection tool were calculated using the Cronbach Alfa coefficient. The tool's Cronbach Alfa internal consistency reliability coefficient was 0.795 for teacher support, 0.722 for involvement, 0.770 for relationships, 0.751 course order, 0.706 for competition, 0.713 for

clarity of rules 0.853 for the entire scale (Table 5). Factor analysis was used to determine the structure validity of the Effect of Classroom Climate on Success Data Collection Tool. Kline (2005) indicates that the sample size must be at least 10 folds of the number of items. Considering these criteria, since the number of items is 55, the number of samples must be at least 550. This criterion is observed in the study.

**Table 4.** Total Variance Rate of Data Collection Tool for the Effect of Classroom Climate on Success

	<b>Total</b>	<b>Variation (%)</b>	<b>Cumulative (%)</b>	<b>Total</b>	<b>Variance (%)</b>	<b>Cumulative (%)</b>
1	10,352	18,823	18,823	10,352	18,823	18,823
2	3,678	6,688	25,510	3,678	6,688	25,510
3	2,585	4,700	30,211	2,585	4,700	30,211
4	2,238	4,070	34,280	2,238	4,070	34,280
5	1,987	3,612	37,892	1,987	3,612	37,892
6	1,885	3,427	41,319	1,885	3,427	41,319
7	1,794	3,262	44,581	1,794	3,262	44,581
8	1,559	2,834	47,416	1,559	2,834	47,416
9	1,497	2,722	50,138	1,497	2,722	50,138
10	1,387	2,521	52,659	1,387	2,521	52,659
11	1,286	2,338	54,997	1,286	2,338	54,997
12	1,178	2,142	57,139	1,178	2,142	57,139
13	1,110	2,019	59,158	1,110	2,019	59,158
14	1,048	1,906	61,063	1,048	1,906	61,063
15	1,008	1,832	62,895	1,008	1,832	62,895

Assessment of Table 4 shows that there are 15 factors with an eigenvalue over 1. These fifteen factors account for 62.895% of the variance. It is seen that the contribution decreases and the curve chart straightens after the 7<sup>th</sup> factors in the Data Collection Tool for the Effect of Classroom Climate on Success. This shows that the scale's structure comprises six factors. Analyses were repeated using the rotation method with this six-factored structure. A variance rate of 40% to 60% in the multi-factored structures is considered sufficient (Büyüköztürk, 2007). After determining the factors in the structure, the items with a rotated factor load below .40 and the 23 cyclic/blur items with a load value given in two or more factors were excluded from the scale, achieving the final form of the scale with 32 items (Table 5).

Assessing the entire scale consisting of 32 items in total, the scale demonstrates a six-factored structure. The first factor; "Teacher support" comprises 7 items, the second factor "Involvement" comprises 8 items, the third factor "Affiliation" comprises 5 items, the fourth factor "Course Order" comprises 5 items, the fifth factor "Competition" comprises 3 items and the sixth factor "Clarity of Rules" comprises 3 items. The load values in factors corresponding to the 32 items in the scale vary between 0.448 and 0.839. The six factors in

the scale account for 49.381% of the total variance. These values clearly show that the scale explains the dimensions of classroom climate. The model conformance test and confirmative factor analysis of the resulting values and structure were investigated. Assessing the results of the KMO and Bartlett's Test of Sphericity in Table 11, KMO value is .858 and Bartlett's Sphericity is found as ( $\chi^2 = 16367.121$ ,  $p=.000$ ). Achieving a KMO value over .60 and a meaningful Bartlett's Sphericity indicates the data can be analyzed (Tabachnick and Fidell, 2001; Tavşancıl, 2005). The total explained variance rate is provided in Table 5.

**Table 5.** Factor Loads and Common Variance Value of Items in the Data Collection Tool for the Effect of Classroom Climate on Success

Items	Teachersupport	Involve ment	Affiliation	Order &Orga nizatio n	Competitio n	Rules	Variance
M <sub>21</sub>	0,717						,385
M <sub>23</sub>	0,676						,589
M <sub>24</sub>	0,661						,328
M <sub>22</sub>	0,622						,473
M <sub>20</sub>	0,593						,600
M <sub>25</sub>	0,588						,506
M <sub>19</sub>	0,511						,315
M <sub>8</sub>		0,610					,357
M <sub>9</sub>		0,567					,362
M <sub>6</sub>		0,561					,378
M <sub>2</sub>		0,553					,312
M <sub>7</sub>		0,545					,360
M <sub>4</sub>		0,531					,339
M <sub>3</sub>		0,528					,430
M <sub>5</sub>		0,471					,411
M <sub>1</sub>		0,448					,448
M <sub>15</sub>			0,760				,641
M <sub>16</sub>			0,732				,554
M <sub>17</sub>			0,724				,589
M <sub>14</sub>			0,656				,428
M <sub>10</sub>			0,631				,408
M <sub>40</sub>				0,810			,317
M <sub>41</sub>				0,734			,683
M <sub>39</sub>				0,704			,597
M <sub>37</sub>				0,514			,588
M <sub>46</sub>				0,509			,720
M <sub>34</sub>					0,817		,681
M <sub>35</sub>					0,793		,559
M <sub>36</sub>					0,604		,760
M <sub>48</sub>						0,839	,727
M <sub>49</sub>						0,819	,453
M <sub>50</sub>						0,517	,503
Eigenvalue	6,077	2,618	2,156	1,799	1,601	1,550	
Cronbach Alfa	.795	.722	.770	.751	.706	.713	
Ratio of Explo- toryVariance%	18,991	8,182	6,738	5,621	5,004	4,845	
KMO: .858							
Bartlets Test of Spheridity: 16367.121							

## 2.4. Item Analysis Results

Two item analysis methods were utilized prior to determining the reliability of the data collection tool. These are: item analysis based on item-data collection tool total score correlation and item analysis based on sub-super group variation means. Table 6 shows the values attained on the basis of item-scale total correlation. Then, the values attained by adding the scores corresponding to the students' responses to the expressions in the data collection tool were listed as highest to lowest and the 87 persons with the lowest scores in the group of 788 persons were defined as the sub-group, while the 213 persons with the highest score were defined as the super-group. As a result of the definition, the variation of the average of scores attained for each item from the super-group and the sub-group was analyzed for independent groups using the t test and provided in Table 6.

**Table 6.** Item Scale Correlations, t values and Cronbach Alfa Values of Data Collection Tool for Class Climate

Dimensions	Item	r(jx)	T	Cronbach Alfa
Teachersupport	21	0,57*	-17,37	,795
	23	0,61*	-19,43	
	24	0,51*	-14,43	
	22	0,56*	-18,50	
	20	0,44*	-12,71	
	25	0,42*	-11,20	
	19	0,45*	-11,76	
Involvement	8	0,38*	-10,20	,722
	9	0,37*	-10,20	
	6	0,32*	-8,47	
	2	0,40*	-11,46	
	7	0,31*	-7,43	
	4	0,38*	-10,18	
	3	0,45*	-12,52	
	5	0,44*	-12,24	
Affiliation	1	0,31*	-7,74	,770
	15	0,49*	-15,69	
	16	0,37*	-10,07	
	17	0,40*	-10,31	
Order&Organization	14	0,31*	-7,52	,751
	10	0,37	-9,86	
	40	0,48*	-13,71	
	41	0,44*	-12,39	
	39	0,51*	-15,82	
Competition	37	0,49*	-15,14	,706
	46	0,43*	-11,41	
	34	0,44*	-11,69	
	35	0,42*	-12,29	
Rules	36	0,36*	-9,21	,713
	48	0,41*	-12,17	
	49	0,44*	-12,82	
	50	0,39*	-11,01	

Looking at Table 6, the scale total score correlations for each item vary from 0.36 to 0.61 and all of the resulting coefficients are statistically meaningful at 0.01 level. The mean

score for the responses of students in sub and super groups shows statistically meaningful variations for all items at 0,01level. The correlations between the dimensions of classroom climate's effect on success were examined using the Pearson Product-MomentCorrelation Coefficient.

**Table 7.** Correlations between the Dimensions of Effect of Classroom Climate on Success Data Collection Tool

Dimensions	Rules	Competition	Order& Organization	Affiliation	Involvement	Teacher support
Rules						
Competition	0.24*					
Order&Organization	0.50*	0.52*				
Affiliation	0.29*	-0.10*	0.26*			
Involvement	0.21*	0.35*	0.45*	0.22*		
Teachersupport	0.55*	0.36*	0.54*	0.40*	0.57*	

\*p<0.05

As shown by Table 7, there are meaningful correlations between the dimensions of the Effect of Classroom Climate on Success. The strongest correlation is between teacher support and involvement at .05 relevance level as an average and positive correlation(  $r = .57$ ). Accordingly, the students participate more in the course as the teacher support increases. Secondly, there is an average, positive correlation between the teacher support and in-class rules(  $r = .55$ ). In this case, the increase in the teacher support leads to students following in-class rules. There is an average, positive relation between the course order and in-class rules and competition respectively(  $r = .50$ ), (  $r = .52$ ). There is also an average, positive relation of involvement with competition and course order(  $r = .35$ ), (  $r = .45$ ). While the Relations aspect has a low and positive correlation with the in-class rules and course order, it has a low, negative correlation with competition (  $r = .29$ ), (  $r = .26$ ), (  $r = -.10$ ). In other words, whereas the students have positive relations with each others, the in-class rules and course order improve, while competition between the students declines. The Relations aspect is inversely correlated to the competition. Videlicet, the competition increases as the relations decline and decreases as the relations increase. In this scale, the lowest correlation between the dimensions is between the involvement and relations. This correlation is low level and positive(  $r = .22$ ) (Table 7).

For the purpose of confirming the factors in the measuring tool for the effect of classroom climate on success, confirmative factor analysis was applied to the resulting data using Lisrel 8.54 package program. During the analysis, the modification recommendations were taken into consideration and the researcher decided to make modifications between the

items 2. and1., 3. and2., 8. and 6., 17. and16., 20. and19., 21. and19., 21. and20., 23. and21., 35. and34., 39. and40., 41. and48., 99. and48. Table 8 provides the statistics relating to the conformance of confirmative analysis results for the class climate data collection tool as a result of all the analyses.

**Table 8.** The Values Relating to Goodness of Fit Tests for the Effect of Classroom Climate on Success Data Collection Tool

$X^2$	Df	$X^2/df$	p	NFI	NNFI	CFI	GFI	AGFI	IFI	RFI	SRMR	RMSEA	90%CI RMSEA
1506.79	437	3.45	0.000	0.89	0.91	0.92	0.89	0.87	0.92	0.88	0.055	0.056	0.053–0.059

\* p<0.01

It is observed that the chi-square value ( $X^2=1506.79$ ,  $sd=437$ ,  $X^2/df=3.45$ ,  $p=.000$ ) Table 8 is meaningful. GFI and AGFI over .90 in goodness of fit indexes shows the existence of good conformance (Marsh and Hocevar, 1988), while 0.85-0.90 range for GFI and an AGFI value over 0.80 shows that an acceptable conformance is present (Cole, 1987; Mars, Balla and McDonald, 1988). The study found the calculated values as GFI=0.89 and AGFI=0.87. The resulting values show an acceptable conformance. Conformance indexes were found as CFI=0.92, NFI=0.89, SRMR=0.055, RMSEA=0.056 and IFI=0.92. Of these values, >0.90 for CFI and NFI values, <0.08 for RMSEA and SRMR (Anderson and Gerbing, 1984), >0.90 for RFI and IFI (Hair, Anderson, Tapham and Black, 1998) scales were broadly evaluated, showing conformance between the model and the observed data. As a result of the confirmative factor analysis, the item factor loads( $\lambda$ ) and explained variances ( $R^2$ ) were investigated, in addition to the conformance indexes of the 32-item scale. The resulting data is shown in Table 15.

**Table 9.** Item Factor Loads, t Values, Error Variances and Variance Explanation Rates Attained Using DFA

Madde	$\lambda$	T	SE	$R^2$	Madde	$\lambda$	t	SE	$R^2$
M <sub>21</sub>	0.65	17.82	0.58	0.42	M <sub>6</sub>	0.41	10.21	0.83	0.17
M <sub>22</sub>	0.65	18.51	0.58	0.42	M <sub>5</sub>	0.52	13.37	0.73	0.27
M <sub>23</sub>	0.69	19.79	0.52	0.48	M <sub>4</sub>	0.54	13.98	0.71	0.23
M <sub>24</sub>	0.65	18.65	0.57	0.43	M <sub>1</sub>	0.28	6.85	0.92	0.08
M <sub>20</sub>	0.46	12.28	0.78	0.22	M <sub>15</sub>	0.83	23.71	0.31	0.69
M <sub>19</sub>	0.48	12.88	0.77	0.23	M <sub>16</sub>	0.57	15.33	0.68	0.32
M <sub>40</sub>	0.60	15.05	0.64	0.36	M <sub>17</sub>	0.55	14.69	0.70	0.30
M <sub>39</sub>	0.62	16.22	0.61	0.39	M <sub>14</sub>	0.56	15.24	0.68	0.32
M <sub>41</sub>	0.58	14.95	0.67	0.33	M <sub>10</sub>	0.56	15.08	0.69	0.31
M <sub>46</sub>	0.48	12.28	0.77	0.23	M <sub>34</sub>	0.51	11.90	0.73	0.27
M <sub>37</sub>	0.61	15.87	0.63	0.37	M <sub>35</sub>	0.43	10.05	0.81	0.19
M <sub>7</sub>	0.43	10.72	0.82	0.18	M <sub>36</sub>	0.83	15.96	0.31	0.69
M <sub>8</sub>	0.53	13.55	0.72	0.28	M <sub>48</sub>	0.55	11.74	0.70	0.30
M <sub>2</sub>	0.42	10.50	0.82	0.18	M <sub>49</sub>	0.53	11.39	0.71	0.29
M <sub>9</sub>	0.51	13.18	0.74	0.26	M <sub>50</sub>	0.64	13.34	0.59	0.41
M <sub>3</sub>	0.48	12.14	0.77	0.23	M <sub>25</sub>	0.40	14.01	0.28	0.24

Table 9 shows the factor loads ( $\lambda$ ) vary in 0.28- 0.83 range according to the confirmative factor analysis. The resulting values must be greater than 0.10, considering their absolute value. A value below 0,10 is defined as the “small effect”, a value around 0,30 is defined as “medium effect” and a value over 0.50 is defined as ”large effect” (Kline, 2005). Accordingly, it is possible to suggest that the factor loads generally have large effects. Furthermore, if we look at the t values relating to the resulting factor loads, it is clear that the t values of all items are meaningful. As demonstrated in Table 9, the  $R^2$  (explained variance) values of items in general appear to be in medium level. Through the confirmative factor analysis, the scale consisting of 32 items and six sub-dimensions that were analyzed were finalized. Assessing the attained results as a whole reveals that all items included in the model conform to the model. Based on these findings, it can be said that each factor correctly represents the expressions comprising it and the scale provides a valid structure.

## 2.5. Data Analysis

In the survey the primary teaching senior year students they graduated from Anatolian teacher high schools and other schools have been studied with t-test in order to determine whether there is significance difference among the opinions of candidate teachers graduating from Anatolian teacher high school or other secondary education institutions (general high schools, vocational high schools) in primary teaching senior year with respect to “Teacher support”, “Involvement”, “Affiliation”, “Course Order”, “Competition” and “Clarity of Rules”.

## 2.6. List of Symbols

F	Frequency
$\bar{X}$	Arithmetic Mean Value
K.T.	Sum of Squares
K.O.	Mean of Squares
p	Level of Significance
ss	Standard Deviation Value
N	Number of Data in Distribution
t	T test value
r	Pearson Correlation Coefficient
KMO	Kaiser- Meyer-Olkin
DFA	Confirmative Factor Analysis
$\lambda$	Item Factor Loads
$R^2$	Explained Variance

### 3. Findings And Interpretation

#### 3.1. Findings and Interpretation of Sub-Dimension “Teacher support” According to Secondary Education Institution Student Graduated From

Table 10 provides the mean values and t- test results for the sub-dimension “Teacher support” According to Secondary Education Institution Student Graduated From.

**Table 10.** Mean Values and t – test Results for Sub-Dimension “Teacher support” According to Secondary Education Institution Student Graduated From

Dimension	Type of schools	N	$\bar{X}$	ss	sd	t	p
Teacher support	AÖL	91	3,797	,575	786	3,512	,000*
	Other	697	3,585	,538			

As shown by Table 10, the students’ views on the teacher support sub-dimension demonstrate a meaningful variation according to the secondary education institution they graduated from [ $t_{(786)}=3.512, p < 0.05$ ]. It is noted that the students that graduated from Teacher High Schools considered the teacher support more significant in bolstering success compared to student that graduated from other secondary education institutions. Considering the mean values, it is evident that students who graduated from Anatolian Teacher High Schools (AÖL) have higher opinions about the teacher support sub-dimension [ $\bar{X}_{(AÖL)} = 3,797, \bar{X}_{(other)} = 3,585$ ]. It can be suggested that this stems from the fact that the Anatolian Teacher High Schools provide education to prepare students to be teachers, which is why the graduates of these schools have higher expectations towards teacher support in the classroom climate. In his research titled “Anadolu Öğretmen Liseleri ve bu Liselerden Mezun Eğitim Fakültesi Öğrencileri Üzerine Bir İnceleme (An Assessment on the Anatolian Teacher High Schools and Education Faculty Students that Graduated from These Schools”, Çetin (2006: 11) states that teachers assigned to Anatolian Teacher High Schools are effective in directing students of such schools to choose teaching as profession. It is therefore believed that the graduates of teacher high schools consider teacher support as significant.

#### 3.2. Findings and Interpretation of the Sub-Dimension “Involvement” According to Secondary Education Institution Student Graduated From

Table 11 provides the mean values and t- test results for the sub-dimension “Involvement” According to Secondary Education Institution Student Graduated From.

**Table 11.** The mean values and t- test results for the sub-dimension “Involvement” According to Secondary Education Institution Student Graduated From

Dimensi on	Type of schools	N	$\bar{X}$	ss	sd	t	p
Involvement	AÖL	91	4,022	,410	786	6,872	,000*
	Other	697	3,698	,424			

Table 11 shows that students’ opinions on the sub-dimension ‘involvement’ show a meaningful variation according to the type of school they graduated from [ $t_{(786)}=6.872$ ,  $p < 0.05$ ]. It is seen that the students who received education in Anatolian Teacher High Schools have higher opinions of the sub-dimension of involvement compared to students that graduated from other institutions [ $\bar{X}_{(AÖL)} = 4,022$ ,  $\bar{X}_{(Other)} = 3,698$ ]. Students in Anatolian Teacher High Schools are educated to become teachers, in line with the founding purpose of this school type (Regulation on Anatolian Teacher High Schools, 1998). The philosophy of becoming a teacher includes the notion of striving to instill the idea of democratic involvement to the students. According to Gülcan, Kuştepe and Aldemir (2002: 106), knowledge and learning increase the students’ satisfaction of the faculty and the courses they receive. Similarly, in this research, the students that graduated from teacher high schools indicate that involvement is important for success more often compared to the students that graduated from other types of schools. Another reason for this can be that they possess greater knowledge on the field and profession. In this regard, we can interpret that the graduates of Anatolian Teacher High Schools perceive themselves more adequate and knowledgeable compared to the graduates of other high schools. Doğan (2002), in his study titled “Eğitim Fakültesi Sınıf Öğretmenliğinde Öğrenim Gören Anadolu Öğretmen Lisesi Mezunu Öğrenciler ile Diğer Ortaöğretim Kurumu Öğrencilerin Çeşitli Derslere Göre Başarılarının Karşılaştırılması (A Comparison of the Achievement in Various Courses by Anatolian Teacher High School Graduates and Other Secondary Education Graduates Receiving Education in Education Faculty, Primary Teaching Department)”, found a meaningful variation in favor of Anatolian Teacher High School graduates in the courses on professional knowledge. This study, in line with the findings attained in Gülcan et al. (2002) and Doğan’s (2002) study, found that the graduates of Anatolian Teacher High Schools consider involvement as important for increasing success.

### 3.3. Findings and Interpretation of the Sub-Dimension “Affiliation” According to Secondary Education Institution Student Graduated From

Table 12 provides the mean values and t- test results for the sub-dimension “Affiliation” According to Secondary Education Institution Student Graduated From.

**Table 12.** The mean values and t- test results for the sub-dimension “Affiliation” According to Secondary Education Institution Student Graduated From

Dimension	Type of schools	N	$\bar{X}$	ss	sd	t	p
Affiliation	AÖL	91	3,226	,642	786	4,608	,000*
	Other	697	2,874	,691			

As is seen in Table 12, the students’ opinions on affiliation sub-dimension shows a meaningful variation according to the secondary education institution they graduated from [ $t_{(786)}=4.608$ ,  $p < 0.05$ ]. Considering the averages, the students that received education in Anatolian teacher high schools have higher opinions of the affiliation compared to the students that graduated from other secondary education institutions [ $\bar{X}_{(AÖL)} = 3,226$ ,  $\bar{X}_{(Other)} = 2,874$ ]. In this case, we can interpret that the graduates of teacher high schools agree at a higher level that affiliation sub-dimension increases success.

It is understood that the graduates of Anatolian teacher high schools assign greater importance to informal relationships in the classroom; doing homework, listening to the course together, helping each other with assignment and project preparations etc., compared to the graduates of other secondary education institutions. With their education programmes, methods, applications and studies, Anatolian teacher high schools train their students to be more ready for the profession of teaching compared to other high schools. In the study titled “Öğretmen Liselerindeki Öğrencilerin Kişilik Özellikleri ve Öğretmenlik Mesleğine Yönelik Tutumları Arasındaki İlişkiler (The Correlations between the Personality Traits and Attitudes towards the Profession of Teaching of Students in Teacher High Schools)”, Atalay (2005) concluded that the students receiving education in Anatolian teacher high schools have a high cooperative attitude towards the profession of teaching. Since the Anatolian teacher high schools also serve as boarding schools, it is believed that the students have more advanced social relations with other students and teachers compared to other high schools.

### 3.4. Findings and Interpretation of the Sub-Dimension “Course Order” According to Secondary Education Institution Student Graduated From

Table 13 provides the mean values and t- test results for the sub-dimension “Course Order” According to Secondary Education Institution Student Graduated From.

**Table 13.** The mean values and t- test results for the sub-dimension “Course Order” According to Secondary Education Institution Student Graduated From

Dimension	Type of schools	N	$\bar{X}$	ss	sd	t	p
Order& Organiz ation	AÖL	91	3,756	,661	786	1,354	,176
	Other	697	3,667	,577			

As is evident in Table 13, the students’ opinion of course order sub-dimension do now show meaningful variations according to the school they graduated from [ $t_{(786)}=1.354$ ,  $p>0.05$ ]. Evaluation of the mean values indicate that the graduates of Anatolian teacher high schools have relatively higher opinions of the course order sub-dimension [ $\bar{X}_{(AÖL)} = 3,756$ ,  $\bar{X}_{(Other)} = 3,667$ ]. It is possible to suggest that this variation is due to the fact that Anatolian teacher high school graduates have greater readiness towards the teaching profession knowledge education program.

### 3.5. Findings and Interpretation of the Sub-Dimension “Competition” According to Secondary Education Institution Student Graduated From

Table 14 provides the mean values and t – test results for the “competition” sub-dimension of primary teaching senior students’ opinion on the effect of classroom climate on success according to the secondary education institution student graduated from.

**Table 14.** The mean values and t- test results for the sub-dimension “Competition” According to Secondary Education Institution Student Graduated From

Dimension	Type of schools	N	$\bar{X}$	ss	sd	t	p
Competition	AÖL	91	3,491	,963	786	-,383	2,70
	Other	697	3,525	,767			

Table 14 makes it clear that the students’ opinion on the competition in the classroom do not show any meaningful variation according to the secondary education institution they graduated from [ $t_{(786)}=-0.383$ ,  $p>0.05$ ]. Taking the mean values into consideration, it is clear that the graduates of Anatolian teacher high schools have relatively lower opinions on the competition in classroom [ $\bar{X}_{(AÖL)} = 3.491$ ,  $\bar{X}_{(Other)} = 3.525$ ]. It is evident that competition in the classroom is not a significant factor influencing the success.

### 3.6. Findings and Interpretation of the Sub-Dimension “Clarity of Rules” According to Secondary Education Institution Student Graduated From

Table 15 provides the mean values and t – test results for the “clarity of competition” sub-dimension of primary teaching senior students’ opinion on the effect of classroom climate on success according to the secondary education institution student graduated from.

**Table 15.** The mean values and t- test results for the sub-dimension “Clarity of Rules” According to Secondary Education Institution Student Graduated From

Dimension	Type of schools	N	$\bar{X}$	ss	sd	t	p
Rules	AÖL	91	2,927	,720	786	-1,449	,148
	Other	697	3,039	,690			

Table 15 makes it clear that the students’ opinion on the clarity of rules do not show any meaningful variation according to the secondary education institution they graduated from [t<sub>(786)</sub>=1.449, p> 0.05]. Taking the mean values into consideration, it is clear that the graduates of Anatolian teacher high schools have relatively lower opinions on the clarity of rules [  $\bar{X}_{(AÖL)} = 2,927$ ,  $\bar{X}_{(Other)} = 3,039$ ].

#### 4. Conclusion

Regarding the effect of class climate on student success, primary teaching senior students that graduated from Anatolian Teacher High Schools have more positive opinions compared to the graduates of other secondary education institutions. Students that graduated from Anatolian Teacher High Schools assign greater importance to teacher support, involvement, affiliation and course order dimensions with respect to the effect of classroom climate on success, compared to the graduates of other secondary education institutions. With respect to competition and clarity of rules, there is no meaningful variation in the student opinions according to the type of school they graduated from. It is obvious that institutional continuity has a positive effect on the transition from secondary education to higher education. Consequently, the environment can influence the individual, just as the individual can influence the environment. Thus, it is necessary to increase student awareness towards the classroom climate. There is no theory or practice available to create an ideal classroom climate. However, it is important for the individual to feel a sense of belonging to their environment and receive positive influences from the environment through such belonging, in order to experience quality learning life. The lecturer’s adequacy, student’s performance of the student role with social and normative characteristics, selection of content suitable for the nature of the information, synthesizing the current and scientific elements, healthy

communication can render a quality classroom climate possible. What this thesis defends is that the awareness of lecturers and students must be increased towards “involvement”, “teacher support”, “affiliation”, “course order”, “competition” and “clarity of rules”, which can boost success.

## 5. Recommendations

The recommendations, developed on the basis of the results of the study, are intended for program developers and education faculties and are provided below.

1. Program development experts should develop the hidden curriculum of universities, faculties and departments according to the official program.

2. The students that graduated from Anatolian teacher high schools consider the “teacher support”, “involvement”, “affiliation” and “course order” more significant with respect to the classroom climate increasing success, compared to the graduates of other secondary education institutions. The graduates of other secondary education institutions must be prevented from merely concerning themselves with having a job in the education faculties, reinforcing the sense of becoming a teacher throughout the learning life and opening optional courses that the students would be interested in, so as to introduce the scientific and artistic aspects of teaching as a profession.

3. Students can be given assessment forms relating to the quality of the classroom climate at the end of term in relation to all courses they take. Therefore, the students’ feedback can be taken into consideration to provide contributions to the positive development of the classroom climate.

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