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EXAMINING THE RELATIONSHIP BETWEEN HIGH SCHOOL STUDENTS' PERCEPTION OF SCHOOL CLIMATE AND THEIR CRITICAL THINKING DISPOSITION*

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Abstract
Critical thinking skills is thought that it is important to structure the elements in the school climate in a way that will support students' participation in the process, find the opportunity to think and criticize in acquiring critical thinking skills. Based on this reason, this study aimed to determine whether there is a relationship between high school students' perception of school climate and critical thinking disposition. Relational scanning model, was used in the research. The sample of the study was determined by stratified sampling method. "Delaware School Climate Student Scale" and "UF/EMI Critical Thinking Tendency Scale" were used as data collection tools in the research. The data obtained in the study were analyzed with t-test, ANOVA and Pearson correlation coefficients. According to the results of the research, a significant and positive relationship was found between the perception of school climate and the tendency to critical thinking.

Key words: Thinking, critical thinking, school climate

LİSE ÖĞRENCİLERİNİN OKUL İKLİMİ ALGISI İLE ELEŞTİREL DÜŞÜNME EĞİLİMİ ARASINDAKİ İLİŞKİNİN İNCELENMESİ

Özet
Eleştirel düşünme becerisini kazanmada okul ikliminde yer alan öğeler, öğrencilerin sürece katılımını destekleyecek, kendilerini özgürce ifade edebilecek, düşünme fırsatı bulup eleştiri yapabilecek şekilde yapılandırılmasının önemli olduğu düşünülmektedir. Bu gerekçeden hareketle bu araştırmada lise öğrencilerinin okul iklimi algısı ile eleştirel düşünme eğilimi arasında bir ilişki olup olmadığının belirlenmesi amaçlanmıştır. Bu nedenle araştırma tarama modellerinden ilişkisel tarama modeli ile gerçekleştirilmiştir. Araştırmanın örneklemi, 2022-2023 eğitim öğretim yılında Hatay'da öğrenim görmekte olan 11. ve 12. sınıf öğrencileri arasından tabakalı örnekleme yöntemi ile belirlenmiştir. Araştırmada veri toplama aracı olarak "Delaware Okul İklimi Öğrenci Ölçeği" ile "UF/EMI Eleştirel Düşünme Eğilimi Ölçeği" kullanılmıştır. Araştırmada elde edilen veriler t-testi, ANOVA ve Pearson korelasyon katsayıları ile analiz edilmiştir. Araştırma sonuçlarına göre okul iklimi algısı ile eleştirel düşünme eğilimi arasında anlamlı ve olumlu bir ilişki bulunmuştur.
Anahtar kelimeler: Düşünme, eleştirel düşünme, okul iklimi

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INTRODUCTION

One of the distinguishing features of humans from other living beings is thinking. Thinking is directly related to human existence in the world (Robson, 2006) and is the most fundamental among the resources humans possess (De Bono, 1999). It is a characteristic that begins with human birth and can be developed throughout life (Fisher, 2005). The process of thinking encompasses various meanings such as comprehension, perception, understanding, imagining, decision-making, judgment, reasoning, reflection, inspiration, intuition, demonstration, exploration, and designing (Türker, 2006). In this context, thinking is a mental process that involves conscious comparison, analysis, synthesis, and other mental activities such as reasoning, deduction, remembering, desiring, doubting, feeling, grasping, and understanding (Cevizci, 1996).

Some people habitually treat thinking as an ordinary activity and do not give it due importance. Thinking carried out in this manner tends to be left unattended, aimless, scattered, incomplete, and simplistic. On the contrary, some people increase the quality of thinking by developing their own way of thinking. Our work, what we produce and the quality of our daily lives depend on the quality of our thoughts. In other words, our life is an indicator of our thoughts. While low quality thinking negatively affects the quality of life and causes loss of money and time, qualified thinking enables the goal to be achieved faster. In short, the way to progress and achieve mental independence is through training of thinking.

Many thinkers and scientists (Ennis, 1996; Halpern, 2014) have stated that individuals must have critical thinking skills in order to adapt to the globalizing world, transfer the education they receive into their lives, and look at events with common sense. According to Şahinel (2002), critical thinking is defined as self-controlled and disciplined thinking towards a way or field of thought. According to Paul (1991), critical thinking is defined as relying on observation and knowledge to reach conclusions. Additionally, İpşiroğlu (2002) states that the most developed form of thinking is critical thinking. Because critical thinking means thinking in depth and objectively, without obsession. As seen above, there are many different definitions of critical thinking. However, when all definitions are examined, it can be said that critical thinking is effectively obtaining, comparing and evaluating information.

The basis of critical thinking is asking questions. It is accepted that one of the methods that develop critical thinking is questioning. Thinking begins with

asking questions about a topic or problem. It is important that the questions are qualified, not superficial, and encourage thinking in order to discuss the issues and problems in detail. According to Türkmen (2014), individuals with critical thinking skills are individuals who are curious, ask questions, do not accept what is presented as it is presented, can make inferences by analysis and synthesis, can base their ideas on evidence, and are open to new ideas.

In order to develop critical thinking skills, critical listening, critical reading, critical speaking and writing skills must also be developed. Critical listening refers to an active understanding process by passing the information received through a mental filter. Thanks to critical reading, a relationship is established between the message the text wants to convey and real life. Critical speaking and writing shows the ability of a person to present new perspectives on facts and events from an objective perspective (Bağcı and Şahbaz, 2012).

It can be observed that in recent years, the critical thinking skill has begun to be more debated and valued in the field of education. This is primarily based on changing conventional perceptions regarding the nature of knowledge, how learning occurs, and the roles of students and teachers in the classroom (Özden, 2005). According to the behaviorist approach, learning is seen as the process of forming stimulus-response connections, disregarding the human mind, emotions, and thoughts, which are not measurable or observable. With advancing technology, experimental studies have allowed for the examination of the brain, weakening the assumptions of the behaviorist approach. Nowadays, knowledge is defined not as objective but as a phenomenon occurring in the human mind. Therefore, there is a growing need for efforts to enhance critical thinking skills in the field of education.

Among the significant aims of education is to enhance students' higher-order thinking skills such as problem-solving, creativity, and critical thinking. In this context, various thinking education programs are being developed to teach students advanced thinking skills and fundamental thinking techniques. Thus, the intention is to first enhance students' thinking skills and then indirectly guide their future and life. According to Nickerson (1988), when developing thinking skills, attention should be paid to aspects such as curiosity, skepticism, tolerance, and respect for truth. This is because respecting all perspectives and thoroughly thinking before taking action by gathering enough information are crucial for developing a mental skill.

The issue of developing thinking skills has become a significant concern for many countries. Studies indicate that students fail to develop their thinking

skills adequately, leading to various difficulties and challenges. This situation is continuously addressed from primary education to university level. Research suggests that attending school for 12 years does not necessarily lead to the development of thinking skills (Nickerson, 1988). Similarly, a study conducted at the college level by McMillan (1987) and Pascarella (1989) found that attending college helps improve critical thinking skills but falls short in fully developing them. In line with this conclusion, Welfel (1982) also found in his research that reflective thinking skills increased among college students but still remained at a low level.

All schools are institutions established to achieve a common goal, but the environment in which they operate can vary. This distinctive feature of schools is referred to as the climate (Akbaba and Erdoğan, 2014). According to Dağlı (2018), school climate is how individuals in the school, including students, teachers, and all staff, express how they feel about themselves and their relationship with others in the school, based on personal or experiential characteristics. In short, school climate is the emotion that affects the entire school. The various structures established by schools not only influence students' perception of the school but also determine the attitudes they will adopt in society due to serving the process of socialization in schools. The way students perceive the school is important in determining their behavior, attitudes, and tendencies within the school. However, the influence of the school is not limited to the school itself. What happens in school, the relational, behavioral, and mental structures within the school, also have an impact beyond school.

A positive school climate, which provides a healthier working environment for teachers, is a prerequisite for creating a better learning environment for students as well. A positive school climate increases teachers' job satisfaction and level of dedication. It is known that a healthy school climate is associated with less alienation and higher student achievement. When previous studies on school climate are examined, it is found that academic achievement, school adaptation, participation in class activities, peer attachment, school and class orderliness are achieved with a positive school climate. On the other hand, a negative or unhealthy school climate leads to low job satisfaction, dissatisfaction, and lack of creativity and adaptation. In schools with a negative climate, insufficient importance is given to students and individuals, there is a rigid and authoritarian structure, communication is limited, and interaction is low.

Based on the aforementioned statements, it can be said that school communication environments and school climate provide an opportunity for the acquisition of skills and values intended for students (Balcı and Yanpar-Yelken, 2010). Therefore, it is considered important that the elements in the school climate are structured in a way that supports students' participation in the process, enables them to express themselves freely, and provides opportunities for critical thinking and criticism, in order to acquire and apply critical thinking skills in life. Based on this rationale, this research aimed to determine whether there is a relationship between high school students' perception of school climate and their tendency toward critical thinking. In line with this aim, the following questions were addressed in the research:

- What are the perceptions of high school students towards the school climate?
- Do high school students' school climate perceptions differ significantly in terms of gender, grade level and school type?
- What is the level of critical thinking tendency of high school students?
- Does the critical thinking tendency of high school students differ significantly in terms of gender, grade level and school type?
- Is there a statistically significant relationship between high school students' school climate perceptions and critical thinking tendencies?

METHODOLOGY

Model of the Research

This research, aiming to explain whether there is a relationship between high school students' perception of school climate and their tendency toward critical thinking, utilized the correlational survey model, which is one of the general survey models. Studies conducted using general survey models aim to obtain a general idea about the population through research conducted on the entire population or a sample taken from the population.

Using general survey models, both singular surveys and correlational surveys can be conducted. In most studies, surveys are designed to provide both singular and correlational results. The correlational survey model attempts to determine whether there is a joint variation between at least two variables and, if so, to determine its degree (Karasar, 2005).

Population – Sample

The population of this research consists of 11th and 12th-grade students studying in Hatay during the academic year 2022-2023. To determine the

sample of the research, the method of stratified sampling, one of the non-probability sampling methods, was used. Stratified sampling is a sampling technique that involves identifying subgroups in the population and ensuring their representation in the sample according to their proportions in the population. Stratified sampling is also used when it is desired to compare the subgroups, selecting an equal number of samples from each subgroup. In short, the purpose of stratified sampling is to ensure the representation of relevant subgroups (Gay, 1987).

In this study conducted within the scope of school climate, it was thought that collecting data from different types of schools would yield better results; therefore, each type of school was considered as a subgroup. In this context, a total of 218 students from vocational high schools, Anatolian high schools, social sciences high schools, and science high schools located in the central districts of Hatay, comprising 11th and 12th-grade students, form the sample of the study. The information about the students included in the sample is provided in Table 1.

Table 1. Information about students

Veriables	Subdimension	f	%
Gender	Male	123	56.4
	Female	95	43.6
Grade	11	116	53.2
	12	102	46.8
School type	Science High School	57	26.1
	Social Science High School	57	26.1
	Anatolian High School	68	31.2
	Vocational High School	36	16.5

As seen in Table 1, 123 (56.4%) of the students participating in the research are male and 95 (43.6%) are female. In terms of grade level, 116 (53.2%) are 11th grade students and 102 (46.8%) are 12th grade students. When examined in terms of school type, 57 (26.1%) are science high school students, 57 (26.1%) are social sciences high school students, 68 (31.2%) are anatolian high school students and 36 (16.5%) are vocational high school students.

Data Collection Tools

In the research, two scales were used as data collection tools. To measure students' perception of school climate, the "Delaware School Climate Student Scale," adapted by Durnalı and Filiz (2019), was used. To measure critical thinking tendency, the "UF/EMI Critical Thinking Tendency Scale," adapted by Ertaş-Kılıç and Şen (2014), was utilized.

Delaware School Climate Student Scale

The Delaware School Climate Student Scale is a scale developed in a 4-point Likert format, consisting of a total of 17 items with sub-dimensions including "teacher-student relationships," "student-student relationships," "interest in school," and "fairness of school rules." Adapted by Durnalı and Filiz (2019), the scale's Cronbach's Alpha coefficients were found to be .80 for the dimension of teacher-student relationships, .67 for student-student relationships, .73 for interest in school, .73 for fairness of school rules, and .84 for the overall scale. In the scope of this research, the collected data yielded Cronbach's Alpha coefficients as follows: .73 for the dimension of teacher-student relationships, .80 for student-student relationships, .78 for interest in school, .77 for fairness of school rules, and .82 for the overall scale.

UF/EMI Critical Thinking Disposition Scale

The UF/EMI Critical Thinking Tendency Scale is a scale developed in a 5-point Likert format, consisting of a total of 25 items with sub-dimensions including "participation," "cognitive maturity," and "innovation." Adapted by Ertaş-Kılıç and Şen (2014), the scale's Cronbach's Alpha coefficients were calculated as .91 for the overall scale, .88 for the participation sub-dimension, .70 for the cognitive maturity sub-dimension, and .73 for the innovation sub-dimension. In the scope of this research, the collected data yielded Cronbach's Alpha coefficients as follows: .90 for the overall scale, .83 for the participation sub-dimension, .71 for the cognitive maturity sub-dimension, and .73 for the innovation sub-dimension.

Analysis of Data

Since the data obtained in the research was quantitative, IBM SPSS Statistics 26.00 (Statistical Package for Social Sciences) program was used in its analysis. First, it was analyzed whether the data met the normality assumption and the results are given in Table 2.

Table 2. Normality test results

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Critical Thinking	.057	218	.083	.986	218	.035
School Climate	.047	218	.200	.992	218	.279

Table 2 presents the results of the normality test for critical thinking and school climate. The significance value for school climate was found to be .279 ($p > .05$), indicating that there is no significant difference from normal distribution. Thus, the data related to school climate are normally distributed. However, when

looking at the significance value for critical thinking, it was found to be .035 ($p < .05$), indicating a significant difference from normal distribution. Therefore, the data for critical thinking do not show a normal distribution according to the Shapiro-Wilk test results.

However, in social sciences, determining whether the data meet the assumption of normality can also involve considering skewness and kurtosis values, as it is relatively more difficult to meet the normality assumption compared to other fields. According to Tabachnick and Fidell (2013), if these values fall between -1.5 and +1.5, it indicates that the data are normally distributed. The skewness and kurtosis values for critical thinking and school climate were calculated as follows: -.344, .974 and -.112, -.335 respectively, showing that all values fall within the range of -1 to +1. Thus, it is concluded that both critical thinking and school climate data are normally distributed, and parametric tests were used for analysis.

Descriptive statistics were used to determine students' perception of school climate and critical thinking tendency, while t-test and ANOVA analyses were employed to examine whether there were significant differences in variables such as gender and school type. Pearson correlation coefficient was utilized to investigate the relationship between school climate and critical thinking tendency.

FINDINGS

In this section, the data collected from the students was analyzed and presented in line with the research questions.

Findings Regarding High School Students' Perception Levels Towards School Climate

Descriptive statistics on teacher-student relations, inter-student relations, interest in school, fairness of school rules and the school climate as a whole are given in Table 3.

Table 3. Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Teacher and student relations	218	1.00	4.00	2.95	.502
Relations between students	218	1.00	4.00	2.62	.604
Interest in school	218	1.00	4.00	2.90	.732
Fairness of school rules	218	1.00	4.00	2.62	.684
School climate	218	1.71	3.76	2.80	.418

Table 3 shows the minimum and maximum values, arithmetic means and standard deviations of teacher and student relations, inter-student relations, interest in the school, the fairness of school rules and the school climate as a whole. When the averages were examined, the average of the teacher-student relationship was 2.95, the relationship between students was 2.62, the interest in the school was 2.90, the fairness of the school rules was 2.62, and the average of the school climate as a whole was 2.80.

Findings on Whether High School Students' Perceptions of School Climate Vary According to Various Variables

The analysis of students' school climate perceptions by gender is given in Table 4 below.

Table 4. Analysis of school climate perceptions by gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean	t	p
School Climate	Male	123	47.43	7.41	.668	-.779	.437
	Fenale	95	48.18	6.74	.692		

As seen in Table 4, it was found that there was no significant difference between male and female students' school climate perceptions (t= -.779, p>.05).

The analysis of students' school climate perceptions by grade level is given in Table 5 below.

Table 5. Analysis of school climate perceptions by grade level

	Class	N	Mean	Std. Deviation	Std. Error Mean	t	p
School Climate	11	116	46.87	6.924	.642	-1.96	.051
	12	102	48.76	7.245	.717		

As seen in Table 5, it was found that there was no significant difference between the school climate perceptions of 11th and 12th grade students (t= -1.96, p>.05).

The analysis of students' school climate perceptions by school type is given in Table 6 below.

Table 6. Analysis of school climate perceptions by school type

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	427.40	3	142.46	2.88	.037

Within Groups	10582.19	214	49.44
Total	11009.59	217	

When Table 6 is examined, it is seen that students' perceptions of school climate differ significantly according to school types (F(3-214)=2.88, p<.05). In order to determine which school types this difference occurs between, Tukey analysis, one of the post-hoc tests, was applied since the group variances were distributed homogeneously. Analysis results are given in Table 7 below.

Tablo 7. Tukey HSD

(I) school type	(J) school type	Mean Difference (I-J)	Std. Error	Sig.
Science High School	Social science High School	-2.66	1.31	.182
	Anatolian High School	.841	1.26	.910
	Vocational High School	.358	1.49	.995
Social Science High School	Science High School	2.66	1.31	.182
	Anatolian High School	3.50*	1.26	.030
	Vocational High School	3.02	1.49	.184
Anatolian High School	Science High School	-.841	1.26	.910
	Social Science High School	-3.50*	1.26	.030
	Vocational High School	-.483	1.44	.987
Vocational High School	Science High School	-.358	1.49	.995
	Social Science High School	-3.02	1.49	.184
	Anatolian High School	.483	1.44	.987

*. The mean difference is significant at the 0.05 level.

When examining Table 7, it can be observed that pairwise comparisons of school types are conducted. Upon reviewing the comparisons, it is understood that the school types that create a significant difference in school climate are social sciences high school and Anatolian high school. Since the difference is in favor of social sciences high school, it can be said that the perception of school climate among social sciences high school students is significantly higher than that of Anatolian high school students.

Findings Regarding the Critical Thinking Disposition Level of High School Students

The descriptive statistics for critical thinking tendencies, including the dimensions of participation, cognitive maturity, innovation, and overall, are provided in Table 8 below.

Table 8. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Participation	218	1.55	5.00	3.88	.612

Cognitive maturity	218	1.29	5.00	3.87	.635
Innovation	218	1.29	5.00	3.82	.663
Tendency to think critically	218	1.40	5.00	3.86	.573

Table 8 gives the minimum and maximum values, arithmetic means and standard deviations of participation, cognitive maturity, innovation and critical thinking tendency. When the averages are examined, participation is 3.88; cognitive maturity 3.87; innovativeness was found to be 3.82 and the average of critical thinking tendency as a whole was 3.86.

Findings on Whether High School Students' Critical Thinking Tendency Differs According to Various Variables

The analysis of students' critical thinking tendencies by gender is given in Table 9 below.

Table 9. Analysis of critical thinking tendencies by gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean	t	p
Critical Thinking	Male	123	95.54	15.30	1.37	-1.28	.201
	Female	95	98.05	12.91	1.32		

As seen in Table 9, it was found that there was no significant difference between the critical thinking tendencies of male and female students (t= -1.28, p>.05).

The analysis of students' critical thinking tendencies by grade level is given in Table 10 below.

Table 10. Analysis of critical thinking tendencies by grade level

	Class	N	Mean	Std. Deviation	Std. Error Mean	t	p
Critical Thinking	11	116	97.40	14.39	1.33	.843	.400
	12	102	95.76	14.27	1.41		

As seen in Table 10, it was found that there was no significant difference between the critical thinking tendencies of 11th and 12th grade students (t= .843, p>.05).

The analysis of students' critical thinking tendencies according to school type is presented in Table 11.

Table 11. Analysis of Critical Thinking Dispositions by School Type

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3391.12	3	1130.37	5.87	.001
Within Groups	41187.24	214	192.46		

Total	44578.37	217

When Table 11 is examined, it is seen that students' critical thinking tendencies differ significantly according to school types (F(3-214)=5.87, p<.05). In order to determine which school types this difference occurs between, Games-Howell analysis, one of the post-hoc tests, was applied since the group variances were not distributed homogeneously. Analysis results are given in Table 12 below.

Tablo 12. Games-Howell

(I) school type	(J) school type	Mean Difference (I-J)	Std. Error	Sig.
Science High School	Social Science High School	2.03	2.33	.819
	Anatolian High School	4.22	2.28	.256
	Vocational High School	11.92*	3.55	.008
Social science High School	Science High School	-2.03	2.33	.819
	Anatolian High School	2.18	2.28	.774
	Vocational High School	9.89*	3.55	.036
Anatolian High School	Science High School	-4.22	2.28	.256
	Social Science High School	-2.18	2.28	.774
	Vocational High School	7.70	3.51	.139
Vocational High School	Science High School	-11.92*	3.55	.008
	Social Science High School	-9.89*	3.55	.036
	Anatolian High School	-7.70	3.51	.139

*. The mean difference is significant at the 0.05 level.

When Table 12 is examined, it is seen that pairwise comparisons of school types are made. Considering the comparisons made, it is understood that the school types that create a significant difference in critical thinking tendency according to school types are science high schools, social sciences high schools and vocational high schools. Since the difference is against vocational high schools, it can be said that the critical thinking tendency of science high school and social sciences high school students is significantly higher than vocational high school students.

Examining the Relationship Between School Climate Perception and Critical Thinking Tendency

Pearson correlation analysis was conducted to determine whether there was a relationship between high school students' perception of school climate and their critical thinking tendencies. The analysis results are shown in Table 13 below.

Table 13. The relationship between school climate perception and critical thinking tendency

	Mean	Std. Deviation	N	Pearson	p
School Climate	47.76	7.12	218	.144	.033
Critical Thinking	96.63	14.33	218		

According to the results of the Pearson correlation analysis, a significant and positive relationship was found between school climate perception and critical thinking ($r = .144$, $p < .05$).

DISCUSSION AND CONCLUSION

This research was conducted with 218 students studying in Hatay to determine the relationship between high school students' school climate perception and critical thinking tendency. According to the results of the research, it was found that the students generally found the climate of the schools they attended positive (2.80). When we look at the arithmetic averages of the sub-dimensions of school climate, they are listed from highest to lowest as teacher and student relations (2.95), interest in the school (2.90), followed by relations between students (2.62) and fairness of school rules (2.62) with the same average.

The school climate perceived by students does not differ significantly according to gender and grade level. Contrary to this study, in the study conducted by Doğan (2012), students' opinions about the "inter-student relations" dimension show significant differences according to the gender variable. Male students have a higher positive perception of relationships between students than female students. Another finding that emerged in this study is that when the school climate was examined by school type, it was determined that there was a differentiation in favor of social sciences high schools. In other words, it was found that social sciences high school students' school climate perception was more positive than Anatolian high school students. In Katıer's (2019) study with teachers, he concluded that school type creates a significant difference in the perception of school climate, parallel to the result in this study.

At the same time, one of the important findings of this research is that the critical thinking tendencies of high school students are generally high (3.86). When we look at the arithmetic averages of the sub-dimensions of critical thinking tendency, although the scores are close to each other, they can be listed from highest to lowest as participation (3.88), cognitive maturity (3.87) and innovation (3.82).

In addition, another result of this study is that students' critical thinking tendencies do not differ significantly according to gender and grade level. Contrary to this result, Ay and Akgöl (2008) concluded that female students have more critical thinking power than male students. Another finding is that when critical thinking tendency is examined according to school type, there is a differentiation against vocational high schools. In other words, it was determined that the critical thinking tendencies of science high school and social science high school students were significantly higher than vocational high school students.

Finally, another important finding emerging from this study is the significant and positive relationship between school climate perception and critical thinking tendency. According to Nosich (2018), critical thinking consists of components such as purpose, relevant questions, assumptions, implications, information, concepts, conclusions, and perspectives. In addition to these components, context and alternatives are also considered components of critical thinking. The significant relationship found in this study between students' perception of school climate and their critical thinking tendencies can be explained by the presence of components such as context and perspective in critical thinking. Schools with a positive school climate may enhance students' critical thinking tendencies by providing a context that supports different perspectives.

Based on the findings of this study, it is essential to create a positive climate in schools to improve students' critical thinking skills. Therefore, activities aimed at improving relationships among students and between students and teachers can be conducted. Additionally, care should be taken to ensure fairness in the establishment and implementation of school rules. As understood from the results of this study, one of the areas perceived more negatively in the school climate by students compared to other dimensions is the fairness of school rules.

This study, aimed at determining the relationship between high school students' perception of school climate and their critical thinking tendency, was conducted using quantitative methods through scales. By employing mixed methods, more detailed findings regarding the variables can be obtained.

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Genişletilmiş Özet

Giriş

Eleştirel düşünme becerisinin, son yıllarda eğitim alanında tartışılmaya ve önemsenmeye başlandığı görülmektedir. Bunun temelini; bilginin doğası, öğrenmenin nasıl gerçekleştiği, öğrenci ve öğretmenin sınıf ortamındaki rollerine ilişkin alışılmış yargıların değişmesi oluşturmaktadır (Özden, 2005). Davranışçı yaklaşıma göre öğrenme, etki–tepki bağı oluşturma süreci olarak ele alınmakta, ölçümü ve gözlemi mümkün olmayan insan zihni, duyguları ve düşüncesi önemsenmemektedir. Gelişen teknolojiyle beraber yapılan deneysel çalışmalar beynin incelenmesine imkân vermiş ve davranışçı yaklaşımın varsayımları zayıflamıştır. Günümüzde bilgi nesnel olarak değil, insanın zihninde gerçekleşen olgu olarak tanımlanmaktadır. Bu nedenle eleştirel düşünme becerilerinin geliştirilmesine yönelik çalışmaların eğitim alanında yapılması gerektiği gündeme gelmiştir.

Okulların hepsi ortak bir amaca ulaşmak için kurulmuş kurumlardır fakat amaçlarını gerçekleştirirken içinde bulundukları ortam birbirinden ayrı olabilir. Okulların ayırıcı özelliği olan bu durum iklim olarak adlandırılır (Akbaba ve Erdoğan, 2014). Dağlı 'ya (2018) göre okul iklimi okulda bulunan öğrenciler, öğretmenler ve tüm çalışanların kişisel veya tecrübeye dayalı özellikleriyle ilişkili olarak, okuldaki bireylerle ve okulun kendisiyle ilgili kendilerini nasıl hissettiklerini ifade eder. Kısacası okul iklimi okulun tamamına tesir eden duygudur. Okulların kurmuş oldukları çeşitli yapılar, öğrencilerin zihinlerindeki okul algısını etkilemekle birlikte okulların toplumsallaşma sürecine hizmet etmesi nedeniyle öğrencilerin toplumda alacakları tavırları da belirlemektedir. Öğrencilerin okulu algılama biçimi, okul içindeki davranış, tutum ve eğilimlerini belirlemek açısından önemlidir. Fakat okulun etkisi yalnızca okulla sınırlı değildir. Okulda olanlar, okuldaki ilişkisel, davranışsal ve zihinsel yapılanma okul sonrasında da etkilerini göstermektedir.

Yukarda bahsedilen ifadelerden yola çıkarak okul içi iletişim ortamları ve okul iklimi öğrencilere kazandırılması düşünülen beceri ve değerler için bir fırsat oluşturmaktadır (Balcı ve Yanpar-Yelken, 2010). Bu nedenle okul ikliminde yer alan öğelerin, öğrencilerin sürece katılımını destekleyecek, kendilerini özgürce ifade edebilecek, düşünme fırsatı bulup eleştiri yapabilecek şekilde yapılandırılması eleştirel düşünme becerisini kazanma ve hayata aktarma açısından önemli olduğu düşünülmektedir. Bu gerekçeden hareket edilerek bu araştırmada lise öğrencilerinin okul iklimi algısı ile eleştirel düşünme eğilimi arasında bir ilişki olup olmadığının belirlenmesi amaçlanmıştır.

Yöntem

Lise öğrencilerinin okul iklimi algısı ile eleştirel düşünme eğilimi arasında bir ilişki olup olmadığını açıklamaya çalışan bu araştırmada genel tarama modellerinden ilişkisel tarama modeli kullanılmıştır. Bu araştırmanın evrenini 2022-2023 eğitim öğretim yılında Hatay'da öğrenim görmekte olan 11. ve 12. sınıf öğrencileri oluşturmaktadır. Araştırmanın örneklemini belirlemek amacıyla seçkisiz örnekleme yöntemlerinden tabakalı örnekleme yöntemi kullanılmıştır. Hatay'ın merkez ilçelerinde yer alan meslek lisesi, anadolu lisesi, sosyal bilimler lisesi ve fen lisesinde öğrenim gören 11. ve 12. sınıf öğrencilerinden oluşan toplam 218 öğrenci çalışmanın örneklemini oluşturmaktadır.

Araştırmada veri toplama aracı olarak 2 adet ölçek kullanılmıştır. Öğrencilerin, okul iklimi algısını ölçebilmek için Durnalı ve Filiz (2019)'in uyarlama çalışmasını yaptığı "Delaware Okul İklimi Öğrenci Ölçeği" ile eleştirel düşünme eğilimini ölçebilmek için Ertaş-Kılıç ve Şen (2014)'in uyarladığı "UF/EMI Eleştirel Düşünme Eğilimi Ölçeği" kullanılmıştır. Araştırmada elde edilen verilerin analizinde okul iklimi algısı ve eleştirel düşünme eğiliminin belirlenmesinde betimsel istatistiklerden; cinsiyet, okul türü gibi değişkenler açısından anlamlı farklılık olup olmadığına bakılırken t-testi ve ANOVA analizlerden; okul iklimi ile eleştirel düşünme eğilimi arasında ilişki olup olmadığını incelemek için Pearson korelasyon katsayısından yararlanılmıştır.

Bulgular

Lise öğrencilerinin okul iklimine yönelik algı düzeyleri ile ilgili bulgulara bakıldığında öğretmen ve öğrencileri ilişkisi 2.95, öğrenciler arası ilişkiler 2.62, okula olan ilgi, 2.90, okul kurallarının adilliği 2.62 ve bütün olarak okul ikliminin ortalaması ise 2.80 bulunmuştur.

Lise öğrencilerinin eleştirel düşünme eğilimi düzeyine yönelik bulgulara bakıldığında katılım 3.88; bilişsel olgunluk 3.87; yenilikçilik 3.82 ve bütün olarak eleştirel düşünme eğiliminin ortalaması ise 3.86 olarak bulunmuştur.

Okul iklimi algısı ve eleştirel düşünme eğilimi arasındaki ilişkiye bakıldığında okul iklimi algısı ile eleştirel düşünme arasında anlamlı ve olumlu bir ilişki bulunmuştur ($r = .144$, $p < .05$).

Tartışma ve Sonuç

Öğrencilerin algıladıkları okul iklimi, cinsiyet ve sınıf düzeyine göre anlamlı bir şekilde farklılaşmamaktadır. Bu çalışmanın aksine Doğan (2012)'nin yaptığı çalışmada öğrencilerin "öğrenciler arası ilişkiler" boyutu hakkındaki görüşleri

cinsiyet değişkenine göre anlamlı farklılıklar göstermektedir. Erkek öğrencilerin, öğrenciler arasında kurulan ilişkileri, kız öğrencilere göre olumlu algılama düzeyi daha yüksektir. Yine bu çalışmada ortaya çıkan bir başka bulgu ise, okul iklimi okul türüne göre incelendiğinde sosyal bilimler lisesi lehine bir farklılaşma olduğu tespit edilmiştir. Bir başka deyişle Sosyal bilimler lisesi öğrencilerinin okul iklimi algısının anadolu lisesi öğrencilerine göre daha olumlu olduğu bulunmuştur. Katıer (2019)'in öğretmenlerle yaptığı çalışmada, bu çalışmadaki sonuca paralel olarak okul türünün okul iklimi algısında anlamlı bir farklılık yarattığı sonucuna ulaşmıştır.

Bunun yanında öğrencilerin eleştirel düşünme eğilimlerinin cinsiyet ve sınıf düzeyine göre anlamlı bir şekilde farklılaşmadığı bu çalışmada ortaya çıkan bir başka sonuçtur. Bu sonucun aksine Ay ve Akgöl (2008) kız öğrencilerin eleştirel düşünme gücünün erkek öğrencilere göre daha fazla olduğu sonucuna ulaşmıştır. Başka bir bulgu ise eleştirel düşünme eğilimi okul türüne göre incelendiğinde meslek lisesi aleyhinde bir farklılaşmanın olmasıdır. Bir başka deyişle Fen lisesi ve sosyal bilimler lisesi öğrencilerinin eleştirel düşünme eğilimlerinin meslek lisesi öğrencilerine göre anlamlı bir şekilde daha yüksek olduğu saptanmıştır.

Son olarak bu çalışmada ortaya çıkan önemli bir bulgu da, okul iklimi algısı ile eleştirel düşünme eğilimi arasında anlamlı ve olumlu bir ilişkinin bulunmasıdır. Nosich (2018)'e göre eleştirel düşünmenin amaç, konuyla alakalı soru, varsayımlar, uygulamalar ve sonuçları, bilgi, kavramlar, sonuçlar ve yorumları, bakış açısı gibi bileşenleri vardır. Bu bileşenlere ek olarak bağlam ve alternatifler de eleştirel düşünmenin bileşenlerinden kabul edilir. Bu çalışmadan elden edilen sonuca göre öğrencilerin okul iklimi algısı ile eleştirel düşünme eğilimleri arasında anlamlı bir ilişkinin bulunması eleştirel düşünmenin bağlam ve bakış açısı gibi bileşenlerinin olması ile açıklanabilir. Olumlu okul iklimine sahip olan okulların öğrencilerin eleştirel düşünme eğilimlerini destekleyecek bir bağlam sunması ve farklı bakış açılarını desteklemesi yönüyle eleştirel düşünme eğilimlerini arttırdıkları söylenebilir.