

## Examination of Turkish Teacher Candidates' Critical Thinking Dispositions and Their Attitudes toward Book Reading Habits According to Various Variables

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### ABSTRACT

This study aimed to determine the levels of Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits, examine them according to various variables, and reveal the relationship between Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits. Relational survey model was used in this study. The study sample consists of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup>-grade Turkish teacher candidates who studied in the Department of Turkish Education in the Faculty of Education of a state university in the spring semester of the 2019-2020 academic year. The research data were collected using the "Personal Information Form" prepared by the researchers, the "Critical Thinking Dispositions Scale" developed by Akbıyık (2002), and the "Attitude Scale towards Reading Habit" developed by Gömleksiz (2004). The valid 165 questionnaires were analyzed in statistical programs. As a result of analyzes, it was determined that the critical thinking dispositions of Turkish teacher candidates and their total attitudes towards their reading habits were slightly above the level of "I agree". According to the results obtained, Turkish teacher candidates' critical thinking dispositions differ significantly according to the average number of books read monthly and the grade point average variables. Attitudes toward book reading habits also differ significantly according to the average number of books read monthly and grade point average variables. Furthermore, there is a moderately positive and significant correlation between Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits.

**Key words:** Turkish Teacher Candidates, Critical Thinking Disposition, Attitude toward the Book Reading Habit

### INTRODUCTION

The ability to think is the most important feature that distinguishes humans from other living things. However, nowadays, when the information flow is very intense and fast, it is not sufficient for individuals to think only in order to reach accurate, quality, and necessary information. It is necessary to question, evaluate, and eliminate information. For all these, it is important to have critical thinking skills that require high-order thinking. Bandman (1995, as cited in Akbıyık, 2002) stated that all cognitive activities of individuals are realized through thinking, but controlled and goal-oriented thinking is realized through critical thinking (Akbıyık, 2002). In this context, when thinking becomes more qualified, critical thinking takes place in a purposeful and controlled manner.

Güneş (2007) defines critical thinking as the ability to look at issues, make comments and make decisions with a questioning approach based on doubt. In the context of the current study, critical thinking includes sub-skills such as detecting cause-effect relationships, capturing similarities and

differences in details, sorting according to various criteria, determining the acceptability and validity of information, analysis, evaluation, interpretation, and making inference. Individuals do not have the innate ability to think critically, and it is very difficult for them to learn critical thinking on their own or from their environment. In this respect, systematic and planned educational activities are very important to acquire the versatile structure of critical thinking, including sub-skills. "There is a need for trained, knowledgeable, and experienced teachers to gain this skill" (Schaferman, 1991 as cited in Özdemir, 2005, p. 6). Therefore, critical thinking skill is a skill acquired by the students after being acquired by the teachers.

According to Ennis (1985), critical thinking includes skills as well as tendencies. The word trend is used in the Turkish Dictionary prepared by the Turkish Language Institution as "Sincere orientation to love, want or do something" (TDK, 2011, p. 760). In order for the individual to be able to think critically and use it effectively, the tendencies towards being willing to think critically are of great importance. The Delphi report, prepared in 1990, the American Philosophical Union

of the ideal critical thinker trends is described as follows: being curious, knowledgeable, personal prejudices honestly the face of a jurisdiction located in a while be discreet, willing to reconsider the problems of being about to present a clear perspective, and to make the effort to search for information in complex situations, the research focus in the selection of criteria in a reasonable manner, and the topic of the research as far as conditions permit, the search final results in a persistent way (as cited in Facione & Facione, 1996).

Uysal et al. (2020) stated that critical thinking has a very important effect on the process of making sense of life and that one of the sources in which critical thinking is fed is reading. Güneş (2007) expressed the concept of reading as a complex process occurring with various functions of the eye, voice and brain such as seeing, perceiving what is seen, voicing, understanding, structuring in the brain. Reading, which allows for individual learning, can be done for different purposes, such as accessing the most up-to-date state of knowledge, conducting research, using other people's experiences, or just having a pleasant time. Reading needs to be developed and turned into a habit, as it is involved at all stages of life for different purposes.

Yılmaz (2004, p. 116) defines reading habit as "perceiving the act of reading as a necessity of the individual, performing the act of reading continuously, regularly and critically". In order for reading to become a habit, an individual must be willing to read and have a positive attitude towards reading. Attitude is defined in the Turkish dictionary "The way, attitude that is kept" (TDK, 2011, p. 2393). The attitude towards reading is "a mental state accompanied by feelings and emotions that increase or decrease the likelihood of reading" (Smith, 1990 as cited in Vulture, 2017, p. 40) is defined as.

Gömleksiz (2004) stated that students' reading skills could be improved with the student-centered education system that prioritizes research and questioning so that students' research skills could be enhanced and students could display an inquiring and critical approach toward individual or social events. Gündüz (2015) also indicated that for efficient reading, readers should go to the background of the text and evaluate what they read from a critical perspective. Since mental skills such as analysis, synthesis, evaluation, and questioning become active during reading, it can be said that gaining the reading habit and developing a positive attitude toward reading, in general, and gaining the book reading habit and having a positive attitude toward book reading, in particular, can support and develop critical thinking skills.

Nowadays, developments in the field of information technology have also led to changes in the tools and methods used to obtain information. The act of reading, which has been performed by people for centuries to reach, update and generate information, can also be realized through digital tools such as computers, electronic tablets, smartphones, e-book readers, as well as printed materials. This shows that the reading skill has always maintained its importance and is at the center of learning and understanding. Therefore, it demonstrates that it is a compulsory need, which must be realized in a qualified way. In order for reading, which takes an important place in every period of life, to be realized in a

qualified way, the read text should be analyzed, scrutinized, interpreted, and evaluated from a critical perspective. In this respect, the Turkish Language Curriculum, which is based on listening/watching, speaking, reading and writing skills, and Turkish teachers, who are the implementers of this program in schools, play an important role in raising individuals who have made reading a habit and can think critically. Accordingly, it is possible to ensure that students evaluate what they read from a critical perspective by making them acquire the reading habit through Turkish lessons. For these, first of all, Turkish teachers must be very competent in critical thinking skills and have a reading habit. Since the special objectives of the Turkish Language Curriculum include the statement "to enable students to understand what they read and evaluate and question this from a critical perspective" (MEB, 2019, p. 8), a way to improve students' critical thinking skills is to make them acquire the habit of reading books through Turkish lessons, and Turkish teachers play an important role in ensuring this. When Turkish teacher candidates learn to critically evaluate what they read before starting their profession, this behavior will turn into a habit over time, and this will make it easier for them both in their personal and future professional lives. Turkish teacher candidates, who have a positive disposition toward critical thinking and a positive attitude toward the book reading habit, will contribute to raising their students as individuals with this quality texture when they start their profession. Thus, the Turkish course and teachers of this course will help to raise individuals who interpret what they read, evaluate it from a critical perspective, and make it a habit with perpetuating the act of reading.

### **Research Questions**

The study addressed the following research question, "What is the level of Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits, do they differ according to demographic variables, and is there a correlation between Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits?" More specifically, the following research questions were postulated:

1. What is the level of Turkish teacher candidates' critical thinking dispositions?
2. What is the level of Turkish teacher candidates' attitudes toward book reading habits?
3. Do Turkish teacher candidates' critical thinking dispositions differ in terms of the grade level variable?
4. Do Turkish teacher candidates' critical thinking dispositions differ in terms of the variable of the average number of books read monthly?
5. Do Turkish teacher candidates' critical thinking dispositions differ in terms of the grade point average variable?
6. Do Turkish teacher candidates' attitudes toward book reading habits differ in terms of the grade level variable?
7. Do Turkish teacher candidates' attitudes toward book reading habits differ in terms of the variable of the average number of books read monthly?

8. Do Turkish teacher candidates' attitudes toward book reading habits differ in terms of the grade point average variable?
9. Is there a correlation between Turkish teachers candidates' critical thinking dispositions and their attitudes toward book reading habits?

## METHOD

### Research Model

In this quantitative study, a relational survey model was used. "Relational survey models are research models that aim to determine the existence and/or degree of covariance between two and more variables" (Karasar, 2010, p. 81).

### Study Sample

The study sample consists of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup>-grade Turkish teacher candidates who studied in the Department of Turkish Education in the Faculty of Education of a state university in the spring semester of the 2019-2020 academic year and were selected according to the "convenience sampling" method. The convenience sampling method is one of the non-random sampling methods, realized by collecting data from an easily accessible sample (Büyüköztürk et al., 2014). Information about the participants included in the sample is presented in Table 1.

According to Table 1, 24.8% of the participants study 1<sup>st</sup> grade, 26.7% 2<sup>nd</sup> grade, 24.8% 3<sup>rd</sup> grade, and 23.6% 4<sup>th</sup> grade. Of the participants, 34.5% read an average of 1 book per month, 40% read an average of 2 books per month, and 25.5% read an average of 3 and more books per month. Moreover, there is no participant stating that he does not read books at all. While 23% of the participants have a grade point average of 2.01-2.50, 45.5% have a grade point average of 2.51-3.00, and 31.5% have a grade point average

of 3.01-3.50. Furthermore, there are no participants with a grade point average of 0-1.00; 1.01-1.50; 1.51-2.00, and 3.51-4.00.

### Data Collection Tools and Techniques

The data obtained in the study were collected using the survey technique. These surveys consist of the Personal Information Form prepared by the researcher, the Critical Thinking Dispositions Scale (CTDS) developed by Akbıyık (2002), and the Attitude Scale towards Reading Habit (ASTRH) developed by Gömleksiz (2004).

Scores obtained by Turkish teacher candidates' from the CTDS constitute the first of the study's dependent variables. As a result of the analyses conducted by Akbıyık (2002), Cronbach's alpha reliability coefficient of the CTDS was determined as 0.87. Büyüköztürk (2014) stated that Cronbach's alpha coefficient of 0.70 and above was considered sufficient for the reliability of the test. Cronbach's alpha reliability coefficient of the scale, which was calculated using the data in this study, was found to be 0.90, and it was concluded that the scale was reliable accordingly.

The scores obtained by Turkish teacher candidates' from the ASTRH constitute another dependent variable of the study. As a result of the analyses performed by Gömleksiz (2004), Cronbach's alpha reliability coefficient for the overall ASTRH was determined as 0.88, and it was 0.78 in love subscale, 0.73 in the habit subscale, 0.72 in the requirement subscale, 0.70 in the desire subscale, 0.75 in the effect subscale, and 0.79 in the benefit subscale. Cronbach's alpha reliability coefficient calculated using the data in this study for the overall scale was found to be 0.93, and in line with this, it was concluded that the scale was reliable. Cronbach's alpha reliability coefficient calculated using the data in this study for the subscales was 0.75 in love subscale, 0.72 in the habit subscale, 0.64 in the requirement subscale, 0.72 in the desire subscale, 0.71 in the effect subscale, and 0.87 in the benefit subscale. Based on the results in the subscales, it was concluded within the scope of this study that the scale was reliable in all subscales, except the requirement subscale. Items in the requirement subscale were not excluded from the evaluation not to disrupt the scale's originality.

Information about the participants was collected using the "Personal Information Form," which included the study's independent variables, such as the grade level, the average number of books read monthly, and the grade point average variables.

### Data Analysis

To determine the levels of Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits, the average item score for the overall CTDS and ASTRH was calculated. Since the ASTRH has 6 subscales, the average item score for each subscale was also calculated.

To determine whether Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits exhibited a significant difference in terms of

**Table 1.** Participants' background information

Independent Variable	Category	f	%
Grade Level	1 <sup>st</sup> Grade	41	24.8
	2 <sup>nd</sup> Grade	44	26.7
	3 <sup>rd</sup> Grade	41	24.8
	4 <sup>th</sup> Grade	39	23.6
Average Number of Books Read Monthly	None	-	-
	1 Book	57	34.5
	2 Books	66	40.0
	3 Books and More	42	25.5
Grade Point Average	0-1.00	-	-
	1.01-1.50	-	-
	1.51-2.00	-	-
	2.01-2.50	38	23.0
	2.51-3.00	75	45.5
	3.01-3.50	52	31.5
	3.51-4.00	-	-
Total		165	100.0

the grade level, the average number of books read monthly, and in grade point average variables, first of all, parametric test assumptions for each analysis were checked to determine the statistical techniques to be used. In line with this purpose, first of all, the assumption of normality, which is a necessary prerequisite for using parametric tests, was examined. According to Büyüköztürk (2014), if the group size is less than 50, the Shapiro-Wilk test can be used to examine the normality of scores; if it is greater than 50, the normality of scores can be examined by the Kolmogorov-Smirnov test. Demir et al. (2016) stated that when the independent variable or variables are categorical, the measurements of the dependent variable should exhibit a normal distribution in each category of the independent variable, or in each combination of independent variable categories. The "homogeneity of variances," which is another necessary prerequisite for using parametric tests, was examined by Levene's test. Parametric tests were used because of both normal distribution and homogeneity of variances prerequisites were met. In cases when at least one of the necessary prerequisites for using parametric tests could not be met, non-parametric alternatives of these tests were used.

To determine whether Turkish teacher candidates' critical thinking dispositions differed in terms of the grade level variable, the Kruskal-Wallis H test was applied since the necessary prerequisites for using parametric tests were not met. To determine whether Turkish teacher candidates' critical thinking dispositions differed in terms of the variable of the average number of books read monthly and the grade point average variable, one-way ANOVA was used since the necessary prerequisites for using parametric tests were

**Table 2.** Kruskal-Wallis H test results of the scores obtained from the CTDS in terms of grlevel variable

Grade Level	N	Mean Rank	df	$\chi^2$	P
1 <sup>st</sup> Grade	41	83.26	3	4.69	0.196
2 <sup>nd</sup> Grade	44	79.18			
3 <sup>rd</sup> Grade	41	74.21			
4 <sup>th</sup> Grade	39	96.28			

**Table 3.** Descriptive statistics of the scores obtained from the CTDS in terms of the variable of the average number of books read monthly

Number of Books	N	$\bar{X}$	sd
1 Book	57	117.88	11.81
2 Books	66	120.09	12.31
3 Books and More	42	125.07	13.19

**Table 4.** One-way ANOVA results of the scores obtained from the CTDS in terms of the variable of the average number of books read monthly

Source of Variance	Sum of Squares	df	Mean of Squares	F	p	Significant Difference
Inter-group	1279.413	2	639.707	4.181	0.017*	1 Book-3 Books and More
Intra-group	24788.381	162	153.015			
Total	26067.794	164				

\*p<.05

met. To reveal whether Turkish teacher candidates' attitudes toward book reading habits differed in terms of the grade level, the average number of books read monthly, and the grade point average variables, the Kruskal-Wallis H test was performed because the necessary prerequisites for using parametric tests were not met. Finally, to decide on which correlation coefficient to use to determine the correlation between Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits, first of all, the normality test was applied to the scores obtained from the scales, and Pearson's correlation coefficient was used since the scores obtained from both scales exhibited normal distribution.

During the data analysis, the 1.2.0-g0fb4db version of the "GNU PSPP" software (Free Software Foundation, 2018) and the 4.0.2 version of the "R" software (R Core Team, 2020) were used. In addition to these, a package called "nortest" (Gross & Ligges, 2015) was installed in R. In this software, it was possible to apply the Kolmogorov-Smirnov test with the Lilliefors correction in R. The level of significance of the significance value was set at .05 in all analyses.

## RESULTS

As a result of the analyses, it was determined that Turkish teacher candidates' item score averages ( $\bar{X}$  =4.02) for the overall of the Critical Thinking Dispositions Scale were slightly above the level of "I agree" - considering that the scale has 5-point Likert-type grading.

It was found that the item score averages concerning Turkish teacher candidates' book reading habits in love subscale ( $\bar{X}$ =4.02), in the habit subscale ( $\bar{X}$ =4.16), in the desire subscale ( $\bar{X}$ =4.02), in the effect subscale ( $\bar{X}$  =4.11), in the benefit subscale ( $\bar{X}$ =4.39), and the item score averages for the overall scale ( $\bar{X}$  =4.13) were slightly above the level of "I agree"-considering that the relevant scale has 5-point Likert-type grading. Moreover, it was determined that the item score averages in the requirement subscale ( $\bar{X}$ =3.89) were close to the "I agree" level.

To determine whether Turkish teacher candidates' critical thinking dispositions differed in terms of the "grade level" variable, the Kruskal-Wallis H test, among non-parametric tests, was used, and the obtained results are presented in Table 2.

As seen in Table 2, it is understood that Turkish teacher candidates' critical thinking dispositions differed significantly in terms of the "grade level" variable [ $\chi^2_{(3)}$  =4.69; p>.05].

To determine whether Turkish teacher candidates' critical thinking dispositions differed in terms of the variable of the "average number of books read monthly," one-way ANOVA,

one of the parametric statistical techniques, was applied, and prior to this, descriptive statistics for the relevant analysis were presented in Table 3.

The one-way ANOVA test was applied to determine whether the difference between the scores in Table 3 was statistically significant, and the obtained result is presented in Table 4.

As seen in Table 4, it is understood that Turkish teacher candidates' critical thinking dispositions exhibited a significant difference in terms of the variable of the "average number of books read monthly" [ $F_{(2-162)}=4.181$ ;  $p<.05$ ]. According to the results of the Sidak test applied to reveal the source of the significant difference, it was found that the said difference was between "Turkish teacher candidates who read an average of 1 book per month" and "Turkish teacher candidates who read an average of 3 and more books per month." Accordingly, it was concluded that the critical thinking dispositions of Turkish teacher candidates who read an average of 3 and more books per month ( $\bar{X}=125.07$ ) were more positive than those of Turkish teacher candidates who read an average of 1 book per month ( $\bar{X}=117.88$ ).

One-way ANOVA, one of the parametric statistical techniques, was applied to determine whether Turkish teacher candidates' critical thinking dispositions differed in terms of the "grade point average" variable, and before that, descriptive statistics for analysis are presented in Table 5.

The One-way ANOVA was applied to determine whether the difference between the scores in Table 5 was statistically significant, and the obtained result is presented in Table 6.

As seen in Table 6, it is understood that Turkish teacher candidates' critical thinking dispositions exhibited a significant difference in terms of the "grade point average" variable [ $F_{(2-162)}=5.476$ ;  $p<.05$ ]. The Sidak multiple comparison test was applied to determine the source of the significant difference. According to the Sidak test results, the said difference was found to be between "Turkish teacher candidates with a grade point average of 2.01-2.50" and "Turkish teacher candidates with a grade point average of 3.01-3.50" and between "Turkish teacher candidates with a grade point average of 2.51-3.00" and "Turkish teacher candidates with a grade point average of 3.01-3.50." Accordingly, it was concluded that the critical thinking dispositions of Turkish teacher candidates with a grade point

average of 3.01-3.50 ( $\bar{X}=125.23$ ) were more positive than those of Turkish teacher candidates with a grade point average of 2.51-3.00 ( $\bar{X}=118.75$ ) and the critical thinking dispositions of Turkish teacher candidates with a grade point average of 3.01-3.50 ( $\bar{X}=125.23$ ) were more positive than those of Turkish teacher candidates with a grade point average of 2.01-2.50 ( $\bar{X}=117.90$ ).

The Kruskal-Wallis H test, one of the non-parametric tests, was used to reveal whether Turkish teacher candidates' attitudes toward book reading habits differed in terms of the "grade level" variable, and the result obtained is presented in Table 7.

Upon examining Table 7, it is understood that Turkish teacher candidates' attitudes toward book reading habits in love subscale [ $X^2_{(3)}=3.31$ ;  $p>.05$ ], attitudes in the habit subscale [ $X^2_{(3)}=0.85$ ;  $p>.05$ ], attitudes in the requirement subscale [ $X^2_{(3)}=0.60$ ;  $p>.05$ ], attitudes in the desire subscale [ $X^2_{(3)}=4.88$ ;  $p>.05$ ], attitudes in the effect subscale [ $X^2_{(3)}=3.02$ ;  $p>.05$ ], attitudes in the benefit subscale [ $X^2_{(3)}=1.18$ ;  $p>.05$ ], and total attitudes [ $X^2_{(3)}=1.60$ ;  $p>.05$ ] did not exhibit a significant difference in terms of the "grade level" variable.

The Kruskal-Wallis H test, one of the non-parametric tests, was used to determine whether Turkish teacher candidates' attitudes toward book reading habits differed in terms of the variable of the "average number of books read monthly," and the result obtained is presented in Table 8.

When Table 8 is examined, it is understood that Turkish teacher candidates' attitudes toward book reading habits in love subscale [ $X^2_{(2)}=12.56$ ;  $p<.05$ ], in the habit subscale [ $X^2_{(2)}=9.22$ ;  $p<.05$ ], in the requirement subscale [ $X^2_{(2)}=6.35$ ;  $p<.05$ ], in the desire subscale [ $X^2_{(2)}=12.52$ ;  $p<.05$ ], in the benefit subscale [ $X^2_{(2)}=9.05$ ;  $p<.05$ ], and total attitudes [ $X^2_{(2)}=12.94$ ;  $p<.05$ ] exhibited a significant difference in terms of the variable of the "average number of books read monthly." Multiple comparisons were made with the Mann-Whitney U test to reveal the source of the difference. Considering the mean ranks, it was concluded that the attitudes in love, habit, requirement, desire, benefit subscales and total attitudes of Turkish teacher candidates who read an average of 3 and more books per month toward book reading habits were more positive compared to Turkish teacher candidates who read an average of 1 book per month. Furthermore, it was also concluded that the attitudes in love, habit, desire, benefit subscales and total attitudes of Turkish teacher candidates who read an average of 3 and more books per month toward book reading habits were more positive than Turkish teacher candidates who read an average of 2 books monthly. In line with Table 8 it is understood that Turkish teacher candidates', attitudes toward book reading habits in the effect subscale [ $X^2_{(2)}=5.21$ ;  $p>.05$ ] did not exhibit a significant difference in terms of the variable of the "average number of books read monthly."

**Table 5.** Descriptive statistics of the scores obtained from the CTDS in terms of the grade point average variable

Grade Point Average	N	$\bar{X}$	sd
2.01-2.50	38	117.90	13.41
2.51-3.00	75	118.75	11.61
3.01-3.50	52	125.23	12.36

**Table 6.** One-way ANOVA results of the scores obtained from the CTDS in terms of the grade point average variable

Source of Variance	Sum of Squares	df	Mean of Squares	F	p	Significant Difference
Inter-group	1650.798	2	825.399	5.476	0.005*	(2.01-2.50)-(3.01-3.50)
Intra-group	24416.996	162	150.722			(2.51-3.00)-(3.01-3.50)
Total	26067.794	164				

\* $p<.05$

**Table 7.** Kruskal-Wallis H test results of the scores obtained from the ASTRH in terms of the grade level variable

Subscale	Grade Level	N	Mean Rank	df	$\chi^2$	p
Love	1 <sup>st</sup> Grade	41	80.24	3	3.31	0.346
	2 <sup>nd</sup> Grade	44	73.84			
	3 <sup>rd</sup> Grade	41	87.95			
	4 <sup>th</sup> Grade	39	91.03			
Habit	1 <sup>st</sup> Grade	41	77.27	3	0.85	0.838
	2 <sup>nd</sup> Grade	44	83.84			
	3 <sup>rd</sup> Grade	41	84.82			
	4 <sup>th</sup> Grade	39	86.17			
Requirement	1 <sup>st</sup> Grade	41	78.11	3	0.60	0.897
	2 <sup>nd</sup> Grade	44	85.38			
	3 <sup>rd</sup> Grade	41	84.15			
	4 <sup>th</sup> Grade	39	84.26			
Desire	1 <sup>st</sup> Grade	41	73.88	3	4.88	0.181
	2 <sup>nd</sup> Grade	44	76.43			
	3 <sup>rd</sup> Grade	41	90.93			
	4 <sup>th</sup> Grade	39	91.67			
Effect	1 <sup>st</sup> Grade	41	89.80	3	3.02	0.389
	2 <sup>nd</sup> Grade	44	74.64			
	3 <sup>rd</sup> Grade	41	79.62			
	4 <sup>th</sup> Grade	39	88.83			
Benefit	1 <sup>st</sup> Grade	41	78.15	3	1.18	0.757
	2 <sup>nd</sup> Grade	44	84.28			
	3 <sup>rd</sup> Grade	41	80.73			
	4 <sup>th</sup> Grade	39	89.04			
Overall Scale	1 <sup>st</sup> Grade	41	78.76	3	1.60	0.660
	2 <sup>nd</sup> Grade	44	78.82			
	3 <sup>rd</sup> Grade	41	84.95			
	4 <sup>th</sup> Grade	39	90.13			

The Kruskal-Wallis H test, one of the non-parametric tests, was used to determine whether Turkish teacher candidates' attitudes toward book reading habits differed according to the grade point average variable, and the result obtained is presented in Table 9.

Upon examining Table 9, it is understood that Turkish teacher candidates' attitudes toward book reading habits in love subscale [ $X^2_{(2)}=9.71$ ;  $p<.05$ ], in the benefit subscale [ $X^2_{(2)}=6.40$ ;  $p<.05$ ] and total attitudes [ $X^2_{(2)}=7.06$ ;  $p<.05$ ] exhibited a significant difference in terms of the "grade point average" variable. Multiple comparisons were made with the Mann-Whitney U test to determine from which groups the difference originated. Considering the mean ranks, it was concluded that the attitudes toward book reading habits in love and benefit subscales and total attitudes of Turkish teacher candidates with a grade point average of 3.01-3.50 were more positive compared to Turkish teacher candidates with a grade point average of 2.01-2.50. Moreover, it was

also concluded that the attitudes toward book reading habits in love and benefit subscales of Turkish teacher candidates with a grade point average of 3.01-3.50 were more positive than Turkish teacher candidates with a grade point average of 2.51-3.00. In line with Table 9, it is understood that Turkish teacher candidates' attitudes toward book reading habits in the habit subscale [ $X^2_{(2)}=3.96$ ;  $p>.05$ ], attitudes in the requirement subscale [ $X^2_{(2)}=1.61$ ;  $p>.05$ ], attitudes in the desire subscale [ $X^2_{(2)}=4.12$ ;  $p>.05$ ] and attitudes in the effect subscale [ $X^2_{(2)}=4.60$ ;  $p>.05$ ] did not exhibit a significant difference in terms of the "grade point average" variable.

Pearson's correlation coefficient was examined to determine the correlation between Turkish teacher candidates' critical thinking dispositions and their attitudes toward book reading habits, and the result achieved is shown in Table 10.

Upon examining Table 10, a positive and moderately significant correlation ( $r=.550$ ;  $p<.05$ ) is observed between Turkish teacher candidates' critical thinking dispositions

**Table 8.** Kruskal-Wallis H test results of the scores obtained from the ASTRH in terms of the variable of the average number of books read monthly

Subscale	Number of Books	N	Mean Rank	df	$\chi^2$	p	Significant Difference
Love	1 Book	57	72.14	2	12.56	0.002*	1 Book-3 Books and More
	2 Books	66	78.36				2 Books-3 Books and More
	3 Books and More	42	105.02				
Habit	1 Book	57	74.72	2	9.22	0.010*	1 Book-3 Books and More
	2 Books	66	78.05				2 Books-3 Books and More
	3 Books and More	42	102.01				
Requirement	1 Book	57	73.38	2	6.35	0.042*	1 Book-3 Books and More
	2 Books	66	82.03				
	3 Books and More	42	97.58				
Desire	1 Book	57	72.52	2	12.52	0.002*	1 Book-3 Books and More
	2 Books	66	78.19				2 Books-3 Books and More
	3 Books and More	42	104.79				
Effect	1 Book	57	76.60	2	5.21	0.074	-
	2 Books	66	79.46				
	3 Books and More	42	97.25				
Benefit	1 Book	57	79.70	2	9.05	0.011*	1 Book-3 Books and More
	2 Books	66	74.02				2 Books-3 Books and More
	3 Books and More	42	101.58				
Overall Scale	1 Book	57	74.07	2	12.94	0.002*	1 Book-3 Books and More
	2 Books	66	76.18				2 Books-3 Books and More
	3 Books and More	42	105.83				

\*p&lt;.05

**Table 9.** Kruskal-Wallis H test results of the scores obtained from the ASTRH in terms of the grade point average variable

Subscale	Grade Point Average	N	Mean Rank	df	$\chi^2$	p	Significant Difference
Love	2.01-2.50	38	71.53	2	9.71	0.008*	(2.01-2.50)-(3.01-3.50)
	2.51-3.00	75	77.22				(2.51-3.00)-(3.01-3.50)
	3.01-3.50	52	99.72				
Habit	2.01-2.50	38	70.32	2	3.96	0.138	-
	2.51-3.00	75	84.52				
	3.01-3.50	52	90.08				
Requirement	2.01-2.50	38	75.04	2	1.61	0.448	-
	2.51-3.00	75	83.75				
	3.01-3.50	52	87.73				
Desire	2.01-2.50	38	71.26	2	4.12	0.128	-
	2.51-3.00	75	82.95				
	3.01-3.50	52	91.64				
Effect	2.01-2.50	38	72.18	2	4.60	0.100	-
	2.51-3.00	75	81.25				
	3.01-3.50	52	93.43				
Benefit	2.01-2.50	38	73.49	2	6.40	0.041*	(2.01-2.50)-(3.01-3.50)
	2.51-3.00	75	78.46				(2.51-3.00)-(3.01-3.50)
	3.01-3.50	52	96.50				
Overall Scale	2.01-2.50	38	70.64	2	7.06	0.029*	(2.01-2.50)-(3.01-3.50)
	2.51-3.00	75	79.86				
	3.01-3.50	52	96.56				

\*p&lt;.05

**Table 10.** Correlation between turkish teacher candidates' critical thinking dispositions and attitudes toward book reading habits

	N	r	p	ASTRH
CTDS	165	0.550	0.000*	

\*p<.05

and attitudes toward book reading habits. While making this evaluation, the statement of Demir (2019) in terms of direction that the correlation coefficient might take values in the range from -1 to +1 and in line with this, values close to -1 showed a negative correlation, and values close to +1 showed a positive correlation was taken into account. Concerning level, the statement of Büyüköztürk (2014) that the correlation coefficient in the range of 0.70 to 1.00 in terms of absolute value indicated a high-level correlation, in the range of 0.70 to 0.30 indicated a medium-level correlation and in the range of 0.30 to 0.00 indicated a low-level correlation was taken into account. Accordingly, as the critical thinking dispositions of Turkish teacher candidates increase, their attitudes toward book reading habits also increase. In other words, as Turkish teacher candidates' attitudes toward book reading habits increase, their critical thinking dispositions also increase.

## DISCUSSION AND CONCLUSION

This study reached a conclusion that Turkish teacher candidates' critical thinking dispositions were slightly above the "I agree" level. In line with this, it can be said that Turkish teacher candidates' generally had positive critical thinking dispositions. Durukan and Maden (2010) also concluded in their study that the critical thinking disposition scores of Turkish teacher candidates were above the average. Şenyiğit (2016) reached a similar conclusion in his study with primary school teacher candidates and determined that the critical thinking dispositions of primary school teacher candidates were at the level of "I agree."

This study reached a conclusion that Turkish teacher candidates' attitudes toward book reading habits were slightly above the "I agree" level. Similarly to this result of the study, Akbaba (2017) also found in his study that the general attitudes of Turkish teacher candidates toward their book reading habits were positive. As a result of their study carried out with primary school teacher candidates, Gökkuş and Delican (2016) revealed that the general attitudes of primary school teacher candidates toward book reading habits were at the level of I completely agree and positive.

This study determined that Turkish teacher candidates' critical thinking dispositions did not exhibit a significant difference in terms of the "grade level" variable. Although there was no significant difference, while the mean ranks regarding the critical thinking disposition scores of Turkish teacher candidates decreased in each upper grade in the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> grades, it is noteworthy that the highest mean rank was achieved in the 4<sup>th</sup> grade. This can be explained by the increase in the cognitive awareness of Turkish teacher

candidates in the first three grade levels and questioning of their self-efficacy regarding critical thinking dispositions and by the development of critical thinking dispositions due to the reflection of especially the teaching practice course on the professional and personal development of Turkish teacher candidates in the 4<sup>th</sup> grade. Ocak et al. (2016) also reached a similar conclusion in their study and determined that the critical thinking dispositions of teacher candidates did not differ significantly according to the grade level they studied, both in total and in subscales. Unlike these results, Durukan & Maden (2010) concluded in their study that the critical thinking dispositions of Turkish teacher candidates studying in the 1<sup>st</sup> and 3<sup>rd</sup> grades were significantly higher than those of Turkish teacher candidates studying in the 2<sup>nd</sup> and 4<sup>th</sup> grades. In his study, Şenyiğit (2016) concluded that the critical thinking dispositions of primary school teacher candidates studying in the 1<sup>st</sup> and 4<sup>th</sup> grades exhibited a significant difference in terms of grade levels, and the mentioned difference was in favor of primary school teacher candidates studying in the 4<sup>th</sup> grade.

This study concluded that Turkish teacher candidates' critical thinking dispositions exhibited a significant difference in terms of the "average number of books read monthly" variable and the difference in question was in favor of Turkish teacher candidates with a higher number of books read. This situation supports the idea that one of the ways Turkish teacher candidates' can apply to make their disposition towards critical thinking more positive is to increase the number of books they read. Because, within the scope of this research, it was determined that the critical thinking disposition scores of Turkish teacher candidates increased significantly as the number of books they read monthly increased. Şenyiğit (2016) reached a similar conclusion in her study and revealed that the critical thinking dispositions of primary school teacher candidates showed a significant difference in terms of the number of books they read per year. It was determined that the critical thinking dispositions of primary school teacher candidates who read books are significantly higher than those who do not read any books.

This study determined that Turkish teacher candidates' critical thinking dispositions differed significantly in terms of the "grade point average" variable and the mentioned difference was in favor of Turkish teacher candidates with a high grade point average. This may show that if Turkish teacher candidates' critical thinking dispositions become more positive, this will also reflect on their academic achievement, and they can be more successful in line with this because it was found within the scope of this study that as Turkish teacher candidates' grade point averages increased, their critical thinking disposition scores also increased. Likewise, Seferoğlu and Akbıyık (2006) also concluded that students with a high critical thinking disposition were academically more successful than students with a low critical thinking disposition. As a result of their study, Yakar et al. (2010) determined that, unlike these results, there was no significant correlation between teacher candidates' critical thinking dispositions and grade point averages.

This study revealed that Turkish teacher candidates' attitudes toward book reading habits did not exhibit a significant



difference in terms of the “grade level” variable both in the overall scale and in its subscales. Based on this, since it is already expected that Turkish teacher candidates’ like to read books and try to turn it into a habit, or since their awareness of the importance of reading books is already high, it can be said that their attitudes toward book reading habits do not differ significantly in the period from the first year up to the last year of their undergraduate education. Similarly to this result of the study, Özbay et al. (2008) also found in their study that the attitudes of Turkish teacher candidates toward book reading habits did not show a significant difference according to grade levels. Akbaba (2017) also found that Turkish teacher candidates’ attitudes toward reading did not differ significantly according to their grade levels. Contrary to these results, Şenyiğit (2016) found in his study that the attitudes of primary school teacher candidates toward book reading habits showed a statistically significant difference in the overall scale and in its subscales according to grade levels and the attitudes of primary school teacher candidates studying in the 1<sup>st</sup> grade toward book reading habits were significantly more positive than the attitudes of primary school teacher candidates studying in the 4<sup>th</sup> grade both in the subscales and in the overall scale.

This study found that the attitudes of Turkish teacher candidates toward book reading habits in the subscales of love, habit, requirement, desire and benefit and their total attitudes showed a significant difference in terms of the “average number of books read monthly” variable, and the difference in question was in favor of Turkish teacher candidates with a higher number of books read. It was determined that Turkish teacher candidates’ attitudes toward book reading habits in the effect subscale did not exhibit a significant difference in terms of the “average number of books read monthly” variable. Similarly to this result of the study, Özbay et al. (2008) also determined that the attitudes of Turkish teacher candidates toward book reading habits in effect and requirement subscales did not show a significant difference according to the frequency of reading books, but the attitudes in love, habit, desire and benefit subscales exhibited a significant difference according to the frequency of reading books. Furthermore, they determined as a result of the multiple comparison test applied to determine the source of the said difference that this difference was in favor of Turkish teacher candidates who read more books per month.

In this study, it was concluded that Turkish teacher candidates’ total attitudes toward book reading habits and their attitudes in love and benefit subscales exhibited a significant difference in terms of the “grade point average” variable, and the mentioned difference was in favor of Turkish teacher candidates with a high grade point average. It was revealed that Turkish teacher candidates’ attitudes in the habit, requirement, desire and effect subscales did not show a significant difference in terms of the “grade point average” variable. It can be said that gaining the habit of reading books can develop individuals in a versatile way and contribute to their academic achievement, based on the fact that the difference within groups with a significant difference is in favor of Turkish teacher candidates with a high grade point average. Differently from this result, Akbaba (2017) concluded that

Turkish teacher candidates’ attitudes toward reading habits did not change according to their grade point averages.

This study determined a positive and moderately significant correlation between the critical thinking dispositions of Turkish teacher candidates and their attitudes toward book reading habits. Accordingly, as Turkish teacher candidates’ critical thinking dispositions increase, their attitudes toward book reading habits also increase. In other words, as Turkish teacher candidates’ attitudes toward book reading habits increase, their critical thinking dispositions also increase. In parallel with this, as reading turns into a habit; it can be said that critical thinking can turn into a habit like reading by questioning what is read, evaluating it according to criteria, examining the accuracy or falsity of the information in the text. In addition, it can be said that critical thinking can be used effectively not only while reading a book, but also in daily life. Similarly to this result of the study, Gökkuş and Delican (2016) also found in their study a positive and moderately significant correlation between the critical thinking dispositions of primary school teacher candidates and their attitudes toward book reading habits. Şenyiğit (2016) also determined a positive and moderately significant correlation between primary school teacher candidates’ critical thinking dispositions and their attitudes toward book reading habits. Unlike these results, Uysal et al. (2020) found in their study, a positive and low-level significant correlation between the critical thinking dispositions of Turkish teacher candidates and their book reading habits.

Based on the findings of the current study the following recommendations can be made:

1. In order to enable Turkish teacher candidates to reach a higher level of critical thinking disposition, the content of the courses in the Turkish Language Teaching Undergraduate Program should be regulated by determining new targets.
2. In order to raise the attitudes of Turkish teacher candidates towards their book reading habits to a higher level, they should read books during their undergraduate education and analyze, question, interpret and evaluate the books they read with a critical perspective.
3. In order to raise the critical thinking tendencies of Turkish teacher candidates at different grade levels, appropriate studies can be carried out at the grade level.
4. Alternatives such as different types of texts, different reading methods and techniques can be used to give Turkish teacher candidates the habit of reading or to improve it at every stage of their undergraduate education.
5. In this study, it was concluded that the critical thinking tendencies of Turkish teacher candidates and their attitudes towards book reading habits showed a significant difference in favor of those with a high number of books they read. According to these results, critical thinking book reading habits and tendencies that would increase teacher candidates to reading more of in the library of the University print and digital resources, especially in terms of current publications can be enriched.
6. In this study, it was concluded that the critical thinking tendencies and attitudes of Turkish teacher candidates regarding their reading habits showed a significant

difference in favor of those with a high academic average. Therefore, it can be determined whether the critical thinking tendencies of Turkish teacher candidates and their attitudes towards book reading habits differ significantly according to the scores they receive from the central exams.

7. Turkish teacher candidates' critical thinking tendencies and attitudes towards reading habits were found to have a significant relationship with a positive medium level in this study. Therefore, original activities and lesson plans can be designed that can improve both the critical thinking tendencies of Turkish teacher candidates and their attitudes towards book reading habits.
8. Due to the widespread use of e-books as a result of technological developments, Turkish teacher candidates' attitudes toward reading e-books and their critical thinking dispositions can be examined, and it can be determined whether there is a significant correlation between them.

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