

Determining Self-Efficacy Perceptions of Pre-Service Turkish Language Teachers Towards Critical Reading*

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Abstract

This study aims to reveal the self-efficacy perception levels of pre-service Turkish language teachers towards critical reading and to determine whether these levels vary by various variables. This study draws on a general survey model, which is one of the descriptive research methods. The study group of this research consists of a total of 210 freshman, sophomore, junior, and senior level pre-service Turkish language teachers studying at the Department of Turkish Language Education in the faculty of education at a state university. To collect data, “The Critical Reading Self-Efficacy Perception Scale” developed by Karabay (2013) is used. The findings of this study indicate that the self-efficacy perception levels of the pre-service Turkish language teachers towards critical reading are moderate. Furthermore, the pre-service Turkish language teachers’ self-efficacy perception levels towards critical reading do not significantly vary between the groups in the total score and in the sub-dimensions by variables of gender and academic achievement. Yet, there is a significant difference between the groups in the total score and in the sub-dimensions by variables of grade level and reading frequency. Based on these findings, this study also offers some insights and suggestions for researchers and teaching staff.

Key words: Critical Reading, Self-Efficacy Perception, Pre-Service Turkish Language Teachers

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INTRODUCTION

The age we live in today is referred to by various names such as technology, informatics, and information age. This age does not require people to make a tremendous effort to reach information. On the contrary, the people of this age are subjected to, so to speak, an “information bombardment.” Rapidly-generated information is presented to people’s service without wasting any time. People need to have certain skills in an environment where access to information is so easy. This entails the ability to question the information obtained and to reach the reliable information required. For that reason, people of this age need to develop critical thinking skills.

Critical thinking is the art of thinking intellectually in a disciplined manner (Paul, 2005, p. 28). According to Kazancı (1989), critical thinking is the whole of behavior, knowledge, and skill processes in judging and evaluating according to scientific, cultural, and social standards based on consistency and validity criteria in the face of a problem. Scriven and Paul (1987) argue that critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. Critical thinking, which entails questioning and reflection, undoubtedly makes the act of learning more conscious. From this standpoint, Norris (1985) believes that critical thinking, which he describes as an integral part of education, serves as a motor that enables movement in knowledge production.

It is expected from educational institutions and teachers to lead the development of critical thinking skills. Thus, the Strategy Paper for Teachers, which guides the training and employment of teachers in Turkey between 2017-2023, considers one of the ultimate goals of education to create free individuals who are capable of doing research, questioning and critical thinking (MEB, 2017, p. 1). According to Ennis (1991) as cited in Aybek and Çelik (2007, p. 103), the key factor in teaching critical thinking skills is the teacher himself/herself. Teaching aids, including pre-written texts, workbooks, pre-arranged curricula, are used; however, they alone are insufficient to enable learners to develop thinking skills.

The development of critical thinking skills depends on the effective use of understanding skills. Inquiry-based listening/watching and reading skills considerably contribute to the development of critical thinking. “Just as thinking affects language skills, language skills affect thinking. We think through language. Language is the means of thinking. Critical reading is considered a prerequisite for critical thinking” (Aydın, 2020, p. 77).

Since people in the 21st century are exposed to written and visual stimuli more than ever before, reading skills have become one of the most essential ways of understanding. Due to the abundance of stimuli, “it is almost a must for individuals to approach texts critically, rather than receiving them without questioning. Therefore, learning the ways to choose and evaluate ideas needs to be an integral part of education in general and reading education in particular” (Ateş, 2013, p. 42). Approaching texts with a critical perspective ensures maximum benefit from the information presented. One may come to wrong conclusions when s/he receives and accepts the information without filtering through information to reach a logical and reasonable decision. In this regard, through critical reading skills, individuals draw on mental skills, such as judgment, comparison, questioning, decision-making and choice-making. Thus, they take an important step in reaching accurate and reliable information.

Critical reading, in its simplest form, is a form of reading based on inquiry. “It is possible to say that critical reading is beyond constructing meaning; it is about making meaning and reacting through questioning” (Ateş, 2013, p. 42). According to Çifçi (2006, p. 56), critical reading means “one’s efforts to find the better and more accurate by filtering through what they read and evaluating what they learn through reading based on their own knowledge and experiences; one’s activities to produce better and more accurate mind products through their readings.” Critical reading allows readers to delve into and make more use of the text. “Critical reading is one’s efforts to understand and

use texts thoroughly. If one is able to make inferences about the content and formal consistency of the text as well as the messages of the author and to decide whether the text is written successfully or not, then s/he has acquired the critical reading skill” (Özpinar et al., 2017, p. 132 as cited in Özden, 2018, p. 305). To be able to do critical reading, a person must be equipped with certain prerequisite skills, which includes:

- Knowing the meaning of the words in the text: It is necessary to know the meaning of the words, as it is not possible to make any criticism without full understanding.
- If a word has multiple meanings, guessing its meaning from the context.
- Distinguishing between the literal and figurative meanings of words.
- Identifying the main idea in the integrity of the text and understanding the development of the main idea and its enrichment with supporting details.
- Describing the text in his/her own words.
- Establishing and comprehending the relationship between parts of the text.
- Understanding the purpose of the author and the target audience.
- Realizing the contradictory, unclear or omitted points, if any, in the text (Özsoy & Akçamete, 1996 as cited in Nas, 2003).

The items listed above are the steps to allow an in-depth understanding of a text. Achieving to follow these eight steps, one acquires competence to read critically. Without a full understanding of the text, one cannot evaluate it with a critical approach.

“The purpose of critical reading is to interpret the work correctly, to grasp the messages of the author and, more importantly, to adopt the right approach towards the text and to free oneself from the guidance of the author and the text” (Çifçi, 2006, p. 57). Critical skill in reading requires one to question a text considering the author’s point of view, the purpose of the text, whether the content is correct, whether the text contradicts itself, whether it contains different opinions, etc., instead of taking the words at face value (Özden, 2018, p. 305).

It is pivotal for individuals to be equipped with critical thinking and critical reading skills, as well as to have an awareness and belief in these skills. Here, it is relevant to mention the concept of self-efficacy.

While explaining the “Social Cognitive Theory” (SCT), Albert Bandura mentions self-efficacy, which refers to one’s considering himself/herself as competent, as one of the premises of his theory. Bandura defines the concept of self-efficacy, which is included in Bandura’s Social Learning Theory for the first time, as beliefs about people’s productive abilities (Bandura, 1994, p. 2). According to Bandura, self-efficacy is one’s belief in one’s own capacity to achieve the required levels of learning and behavior (Bandura, 1977a, 1977b, 1986, 1993, 1997, as cited in Shunk, 2011, p. 105). That is, it is an individual’s judgment about and belief in himself/herself about how successful s/he will be in overcoming potential difficulties in the future (Çakır, 2007, p. 419). Senemoğlu (2011, p. 230) reports that self-efficacy is “not a function of one’s skills. It is a product and an outcome of one’s judgments about what s/he can do using his/her skills.” According to Arseven (2016, p. 63), self-efficacy is an individual’s self-belief or self-judgment to perform an action successfully.” In light of these definitions, self-efficacy can be defined as one’s awareness about his/her ability to solve potential problems in life, to overcome a situation or a task.

Self-efficacy, which expresses the state of individuals seeing themselves as competent in a subject, is the belief in oneself in being able to do a job. This belief positively contributes to one’s

motivation and performance. It is thought that a person's self-efficacy belief will positively affect their ability to cope with problems and develop new strategies. "Self-efficacy beliefs affect the goals individuals set for themselves, how much effort they spend and how long they can face with the difficulties to achieve their goals, as well as their reactions to failure." (Hazır-Bıkmaz, 2004, p. 295).

"The social cognitive theory assumes that self-efficacy beliefs are the most basic motivational structure behind the actions of individuals. Increasing self-efficacy beliefs enhances one's determination and commitment, and allows higher performance." (Kurt, 2012, p. 197). Researchers have ascertained in various studies that self-efficacy is a key factor that increases success (Bandura, 1993; Multon, Brown, & Lent, 1991; Pajares, 1996, 1997; Schunk, 1989, 1991; Schunk & Pajares, 2005; Valentine, DuBois, & Cooper, 2004, as cited in Schunk, 2011, p. 106). Accordingly, students with low self-efficacy may not want to participate in learning activities; instead, they may prefer activities that they think would be successful. It has been reported that students with high self-efficacy outperform different academic tasks compared to other students (Schunk, 2011, p. 107).

Teachers, who are expected to equip students with critical thinking skills, need to have knowledge on, skills and attitudes related to critical thinking. They also need to prioritize students' acquisition of critical thinking skills and be able to apply the necessary methods and techniques to achieve this (Önal & Erişen, 2019, p. 70). Teachers must provide their students with the knowledge, skills and behaviors required by the age. In this regard, it is among a Turkish language teacher's critical duties to develop students' critical reading skills and enable them to acquire critical reading habits. One cannot be expected to help someone else to acquire a skill that s/he does not possess himself/herself. From this perspective, teachers are the ones who first need to acquire critical reading skills so that it could be later acquired by students. Therefore, it is significant to explore the beliefs and judgments of pre-service Turkish language teachers about their critical reading skills and their level of awareness on this.

The literature on the self-efficacy perception towards critical reading presents experimental studies (Çelik et al., 2017; Özbay & Kaldırım, 2015) and descriptive studies as well. These descriptive studies on the self-efficacy perception towards critical reading seek to determine the self-efficacy perception of university students studying outside the faculty of education (Gündüz, 2015; Özden, 2018; Tümen Akyıldız, 2019), of teachers (Küçüköğlü, 2013; Murathan et al., 2017), of pre-service teachers (Akdan, 2016; Aşılıoğlu & Yaman, 2017; Aybek & Aslan, 2015; Bağcı, 2019; Çam Aktaş, 2016; Eskimen, 2018; Karabay et al., 2015; Karasakaloğlu et al., 2012; Kösem, 2020; Küçüköğlü, 2008; Özdemir, 2018; Özden, 2018; Şahin, 2019; Topçuoğlu Ünal & Sever, 2013; Ulu & Avşar Tuncay, 2019) towards critical reading. Among the studies performed with pre-service teachers, the studies by Şahin (2019), Topçuoğlu Ünal and Sever (2013), Akdan (2016) and Özdemir (2018) are carried out only with pre-service Turkish language teachers. Although there are many studies intended to determine the self-efficacy perception of pre-service teachers studying in the various departments of education faculties or receiving pedagogical formation training, research on only pre-service Turkish language teachers is limited. The secondary school level is one of the most important stages for students to develop critical reading skills at an early age. Therefore, Turkish language teachers must acquire this skill in order to provide education in the best possible way. Thus, it is of great importance to determine the current reading skills of pre-service Turkish language teachers by the teaching staff of the field in order to compensate for the skills they lack and train qualified teachers.

Research Purpose

The aim of the study is to determine the self-efficacy perception levels of the pre-service Turkish language teachers towards critical reading and identify whether their perception varies according to certain variables. To that end, this study aims to answer the following questions:

1. At what level are the self-efficacy perceptions of the pre-service Turkish language teachers towards critical reading?

2. Do the scores of the pre-service Turkish language teachers on the Critical Reading Self-Efficacy Perception Scale and on its sub-dimensions vary by gender?
3. Do the scores of the pre-service Turkish language teachers on the Critical Reading Self-Efficacy Perception Scale and on its sub-dimensions vary by grade level?
4. Do the scores of the pre-service Turkish language teachers on the Critical Reading Self-Efficacy Perception Scale and on its sub-dimensions vary by academic achievement?
5. Do the scores of the pre-service Turkish language teachers on the Critical Reading Self-Efficacy Perception Scale and on its sub-dimensions vary by reading frequency?

METHOD

Research Model

To determine the self-efficacy perception levels of the pre-service Turkish language teachers towards critical reading, this study draws on general survey model, which is one of the descriptive research methods. Survey models are research approaches intended to describe a past or present situation as it exists (Karasar, 2012, p. 77).

Study Group

The study group of this research consists of 210 freshman, sophomore, junior, and senior level pre-service Turkish language teachers studying at the Department of Turkish Language Education in the faculty of education at a state university. 148 of the participants are female, whereas 62 are male. Among them, 57 students are freshmen; 51 are sophomores; 53 are juniors, and 49 are seniors. Convenience sampling was used while determining the study group. "A convenience sample is a group of individuals who (conveniently) are available for study" (Fraenkel et al., 2012, p. 99). In this study, the research was conducted with Turkish teacher candidates studying at the university in the province where the researchers are located.

Data Collection Tool

"The Critical Reading Self-Efficacy Perception Scale" developed by Karabay (2013) was used for data collection. This 5-point Likert-type scale with 41 items consists of 3 sub-dimensions: visual, research-investigation and evaluation. The Cronbach's Alpha internal consistency coefficients of the dimensions are, respectively, .69, .78 and .91. The Cronbach's Alpha coefficient calculated for the whole scale is .91. And the Cronbach's Alpha coefficient calculated for the whole scale in this study is .86. The Cronbach's Alpha coefficient calculated for the sub-dimension of evaluation is .79, for the sub-dimension of research-investigation it is .78, and for the sub-dimension of visual it is .60.

Data Collection

Data were collected by the researchers from 210 freshman, sophomore, junior, and senior level pre-service Turkish language teachers studying at the Department of Turkish Language Education in the faculty of education at a state university. The pre-service teachers were informed during the data collection process performed in the classroom. The average time for each student to respond to the scale was 10-15 minutes.

Data Analysis

The data collected were analyzed through the SPSS 22.00 package software. Prior to the tests, normality tests were carried out for each variable on the data. Parametric tests were conducted for the cases where a normal distribution was identified; in other cases, square root and logarithmic

transformations were used. Also, nonparametric tests were performed in cases where normality could not be ensured through these transformations. Based on the variables identified in this study, the following analyses were carried out:

Descriptive statistics were used to determine the pre-service Turkish language teachers' self-efficacy perception levels towards critical reading. Mann-Whitney U test was performed on the total score of the scale as well as its sub-dimensions to find out whether the scores of the pre-service Turkish language teachers on the scale vary by gender. Kruskal-Wallis H test was used for the total score for the variables of grade level, academic achievement and reading frequency whilst One-Way ANOVA and Kruskal-Wallis H tests were conducted for its sub-dimensions depending on normal distribution. To determine the intervals of reading frequency, the frequency asserted by Yılmaz (2004) referring to American Library Association (1978) was followed in this study.

Wherever a difference was found between the groups, further analyses were carried out to determine which group/groups lead to such difference and for which group. To that end, in the cases where normality could not be achieved, pairwise comparisons through Mann-Whitney U test were made to identify the groups between which there was a difference. In the cases where normality was achieved, Post Hoc analyses were conducted for multiple comparisons. Tukey test was performed when variances were equal; further, when this test failed to identify the difference, LSD test was carried out. Also, Tamhane's T2 test was applied in cases where variances were not equal.

FINDINGS

Below are the findings regarding the self-efficacy perception levels of the pre-service Turkish language teachers towards critical reading and on whether their self-efficacy perception levels varied by gender, grade level, academic grade point average, and book reading frequency or not.

Findings on the Self-efficacy Perception Levels of the Pre-service Teachers

This study first attempted to determine the self-efficacy perception levels of the pre-service teachers on critical reading. The results of the descriptive statistical analyses performed for this purpose are given in the table below:

Table 1. Results of Descriptive Statistical Analyses on the Self-efficacy Perception Levels of the Pre-service Teachers

	N	Min.	Max.		Ss
Total	210	96	218	160.14	19.68
Valid N (listwise)	210				

Table 1 shows that the average of the scores of the pre-service teachers regarding their self-efficacy perception levels on critical reading is 160.14. That is, the self-efficacy perception levels of the pre-service teachers on critical reading are moderate.

Analyzing the Self-efficacy Perception Levels on Critical Reading by Variable of Gender

Findings on whether the pre-service Turkish language teachers' scores on the Critical Reading Self-Efficacy Perception Scale varied by gender or not are presented below.

Table 2. Results of Independent Samples t-test on the Self-efficacy Perception on Critical Reading by Variable of Gender

Gender	N	S	df	t	p
Female	148	160.56	19.98	208	.49
Male	62	159.11	19.04		

Table 2 indicates that the self-efficacy perception levels of the pre-service teachers on critical reading did not significantly vary between the groups by gender ($t_{(208)}=.49, p>.05$).

Findings on whether the pre-service Turkish language teachers' scores on the sub-dimensions of the Critical Reading Self-Efficacy Perception Scale varied by gender or not are presented below:

Table 3. Results of Mann-Whitney U Test on the Sub-Dimensions of Critical Reading Self-Efficacy Perception Scale by Variable of Gender

Sub-dimensions	Gender	N	Mean Rank	Sum of Ranks	U	p
Evaluation	Female	148	106.69	15790	4412	.66
	Male	62	102.66	6365		
Research-Investigation	Female	148	102.54	15175.50	4149.50	.27
	Male	62	112.57	6979.50		
Visual	Female	148	108.57	16069.00	4133	.25
	Male	62	98.16	6086.00		

As observed in Table 3, there was no a significant difference between female and male students in all three dimensions ($p>.05$).

Analyzing the Self-efficacy Perception Levels on Critical Reading by Variable of Grade Level

Findings on whether the pre-service Turkish language teachers' scores on the Critical Reading Self-Efficacy Perception Scale varied by variable of grade level or not are presented below.

Table 4. Results of Kruskal-Wallis H Test on the Self-efficacy Perception on Critical Reading by Variable of Grade Level

Grade Level	N	Mean Rank	sd	X ²	p	Significant difference
Freshman	57	84.09	3	14.30	.00	(1-3), (1-4), (2-3)
Sophomore	51	98.74				
Junior	53	122.40				
Senior	49	119.17				

Table 4 demonstrates that the self-efficacy perception levels of the pre-service teachers on critical reading significantly varied between the groups by variable of grade level ($X^2_{(3)}=14.30, p<.05$). The results of Mann-Whitney U-tests, which were performed to trace the source of this difference, show that this difference was between 1st-3rd (freshman-junior), 1st-4th (freshman-senior) and 2nd-3rd (sophomore-junior) grade levels.

Findings on whether the scores of the pre-service Turkish language teachers on the sub-dimensions of the Critical Reading Self-Efficacy Perception Scale varied by grade level or not are presented below:

Table 5. Results of One-Way ANOVA Test on the Dimensions of Evaluation and Research-Investigation of Critical Reading Self-Efficacy Perception Scale by Variable of Grade Level

Sub-dimensions	Sources of Variation	Sum of Squares	Sd	Mean square	F	P	Significant difference
Evaluation	Between groups	1586.65	3	528.88	2.78	.04	(1-3),(1-4)
	Within groups	39247.27	206	190.52			
	Total	40833.92	209				
Research-Investigation	Between groups	883.92	3	294.64	9.57	.00	(1-3), (1-4), (2-4)
	Within groups	6342.50	206	30.79			
	Total	7226.42	209				

Table 5 indicates that there was a significant difference between the groups in the sub-dimensions of evaluation and research-investigation by grade level ($p < .05$). The effect size calculated through the test on the sub-dimension of evaluation ($\eta^2 = .038$) means that this difference was at a low level. First, Tukey test was applied to determine which groups significantly differed. As Tukey test failed to achieve this, LSD test was conducted. The results of the LSD test for multiple comparisons show that the significant difference was between 1st and 3rd (freshman-junior) as well as 1st and 4th (freshman-senior) grade levels. The effect size calculated through the test on the sub-dimension of research-investigation ($\eta^2 = .12$) means that this difference was at a high level. The results of the Tukey test for multiple comparisons show that the significant difference was between 1st-3rd (freshman-junior), 1st-4th (freshman-senior) and 2nd-4th (sophomore-senior) grade levels.

Kruskal-Wallis test was applied to identify a potential significant difference between the groups in the sub-dimension of visual by grade level. The relevant findings are presented below.

Table 6. Results of Kruskal-Wallis H Test on the Sub-dimension of Visual by Variable of Grade Level

Grade Level	N	Mean Rank	sd	X ²	p	Significant difference
Freshman	57	82.48	3	15.48	.00	(1-2), (1-3), (3-4)
Sophomore	51	109.94				
Junior	53	127.22				
Senior	49	104.16				

Table 6 demonstrates that there was a significant difference between the groups in the sub-dimension of visual by grade level ($X^2_{(3)} = 15.48$, $p < .05$). The results of Mann-Whitney U tests, which were performed to trace the source of this difference, show that this difference was between 1st-2nd (freshman-sophomore), 1st-3rd (freshman-junior), 1st-4th (freshman-senior) and 3rd-4th (junior-senior) grade levels.

Analyzing the Self-efficacy Perception Levels on Critical Reading by Variable of Academic Achievement

Findings on whether the pre-service Turkish language teachers' scores on the Critical Reading Self-Efficacy Perception Scale varied by academic grade average or not are presented below.

Table 7. Results of Kruskal-Wallis H Test on the Self-efficacy Perception on Critical Reading by Variable of Academic Achievement

Grade Average	N	Mean Rank	sd	X ²	p
1-1.99	7	98.64	2	.18	.915
2-2.99	134	106.63			
3-4	69	103.99			

Table 7 shows that the self-efficacy perception levels of the pre-service teachers on critical reading did not significantly vary between the groups by academic grade point average ($X^2_{(2)} = .18$, $p > .05$).

Findings on whether the pre-service Turkish language teachers' scores on the sub-dimensions of the Critical Reading Self-Efficacy Perception Scale varied by academic achievement or not are presented below:

Table 8. Results of Kruskal-Wallis H Test on the Sub-dimensions of Evaluation and Visual in the Critical Reading Self-Efficacy Perception Scale by Variable of Academic Achievement

Sub-dimensions	Grade Average	N	Mean Rank	sd	X ²	p
Evaluation	1-1.99	7	96.93	2	.18	.92
	2-2.99	134	106.35			
	3-4	69	104.72			
Visual	1-1.99	7	56.71	2	4.94	.09
	2-2.99	134	108.53			
	3-4	69	104.57			

As observed in Table 8, there was no significant difference between the groups in the sub-dimensions of evaluation and visual by academic achievement ($X^2_{(2)}=.18, p>.05$).

One-way ANOVA test was performed to determine whether there was a significant difference between the groups in the dimension of research-investigation by academic achievement. The relevant findings are presented below.

Table 9. Results of One-Way ANOVA Test on the Dimension of Research-Investigation by Variable of Academic Achievement

Sources of Variation	Sum of Squares	Sd	Mean Square	F	P
Between groups	67.88	2	33.94	.98	.38
Within groups	7158.54	207	34.58		
Total	7226.42	209			

Table 9 indicates that there was not a significant difference between the students in the sub-dimension of investigation-research by academic grade point average ($F_{(2-207)}=.98, p>.05$).

Analyzing the Self-efficacy Perception Levels on Critical Reading by Variable of Reading Frequency

Findings on whether the pre-service Turkish language teachers' scores on the Critical Reading Self-Efficacy Perception Scale varied by reading frequency or not are presented below.

Table 10. Results of Kruskal-Wallis H Test on the Self-efficacy Perception on Critical Reading by Variable of Reading Frequency

Reading frequency	N	Mean Rank	sd	X ²	p	Significant difference
1-5 books	35	74.91	2	14.66	.00	All groups
6-11 books	95	103.18				
12 books or more	80	121.64				

Table 10 shows that the self-efficacy perception levels of the pre-service teachers on critical reading significantly varied between the groups by variable of reading frequency ($X^2_{(2)}=14.66, p<.05$). The results of Mann-Whitney U tests, which were performed to trace the source of this difference, show that this difference was between all frequency groups.

Findings on whether the pre-service Turkish language teachers' scores on the sub-dimensions of the Critical Reading Self-Efficacy Perception Scale varied by reading frequency or not are presented below.

Table 11. Results of One-Way ANOVA Test on the Dimension of Evaluation by Variable of Reading Frequency

	Sources of Variation	Sum of Squares	Sd	Mean Square	F	P	Significant difference
Evaluation	Between groups	2462.53	2	1231.27	6.64	.00	(1-5)-(12 and more)
	Within groups	38371.39	207	185.37			
	Total	40833.92	209				
Research- Investigation	Between groups	437.29	2	218.65	6.67	.00	(1-5)-(12 and more)
	Within groups	6789.13	207	32.80			
	Total	7226.42	209				

It is clear from Table 11 that there was a significant difference between the students in the sub-dimension of evaluation by reading frequency ($F_{(2-207)}=6.64$, $p<.05$). The effect size calculated through the test on the sub-dimension of evaluation ($\eta^2=.06$) means that this difference was at a moderate level. The results of Tamhane's T2 multiple comparison test show that the significant difference was between those who read 1-5 books and those who read 12 and more books per year. There was a significant difference between the groups in the dimension of research-investigation ($F_{(2-207)}=6.67$, $p<.05$). The effect size calculated through the test ($\eta^2=.06$) indicates that this difference was at a moderate level. The results of the Tukey test for multiple comparisons show that the significant difference was between those who read 1-5 books and those who read 12 and more books per year.

Table 12. Results of Kruskal-Wallis H Test on the Sub-dimension of Visual by Reading Frequency

Reading frequency	N	Mean Rank	sd	X^2	p	Significant difference
1-5 books	35	81.20	2	7.49	.02	(1-5)-(6-11)
6-11 books	95	106.93				(1-5)-(12 and more)
12 books and more	80	114.43				

Table 12 demonstrates that there was a significant difference between the groups in the dimension of visual by variable of reading frequency ($X^2_{(2)}=7.49$, $p<.05$). The results of Mann-Whitney U tests, which were performed to trace the source of this difference, show that this significant difference was between (1-5)-(6-11) and (1-5)-(12 and more).

CONCLUSION AND DISCUSSION

The findings of this study indicate that the self-efficacy perception levels of the pre-service Turkish language teachers towards critical reading are moderate. This finding overlaps with the findings of the studies on pre-service teachers in the literature (Akdan, 2016; Bağcı, 2019; Karabay et al., 2015). On the other hand, some studies (Aşılıoğlu & Yaman, 2017; Aybek & Aslan, 2015; Çam Aktaş, 2016; Eskimen, 2018; Küçükoğlu, 2008; Özdemir, 2018; Özden, 2018; Topçuoğlu Ünal & Sever, 2013) have concluded that the self-efficacy perception levels of the pre-service teachers towards critical reading are high; also, the study by Karasakaloğlu et al. (2012) reports that the self-efficacy perception levels of the pre-service teachers studying in the department of primary education towards critical reading are low. As for the findings of the studies performed only with the pre-service teachers in the department of Turkish language teaching, the results of the study by Akdan (2016) are similar to that of this present study. Nevertheless, Özdemir (2018) and Topçuoğlu Ünal and Sever (2013) revealed that the self-efficacy perception levels of the pre-service Turkish language teachers towards critical reading are high.

Overall, the fact that the pre-service Turkish language teachers' self-efficacy perception levels are not low is a positive finding. However, considering the professional requirements, pre-service Turkish language teachers can be expected to have higher self-efficacy perception levels towards critical reading.

Also, the findings of this study show that the self-efficacy perception levels of the pre-service teachers towards critical reading did not vary by gender. Some studies in the literature (Aybek & Aslan, 2015; Bağcı, 2019; Çam Aktaş, 2016; Özdemir, 2018; Topçuoğlu Ünal & Sever, 2013; Ulu & Avşar Tuncay, 2019) have similarly found out that the self-efficacy perception levels towards critical reading did not differ by gender. Nevertheless, certain studies (Akdan, 2016; Aşılıoğlu & Yaman, 2017; Eskimen, 2018; Karabay et al., 2015; Kösem, 2020; Özden, 2018) have reported a significant difference in favor of female students between female and male students. The findings of this study overlaps with the findings of the studies by Topçuoğlu Ünal and Sever (2013) and Özdemir (2018) on pre-service Turkish language teachers; however, Akdan (2016) has reported a significant difference in favor of female students. This study further did not find any significant difference in the self-efficacy perception levels towards critical reading in the sub-dimensions of evaluation, research-investigation and visual by gender. Other studies that employed the same scale have ascertained a significant difference between female and male students in the dimension of visual (Şahin, 2019), in the dimensions of evaluation and visual (Aşılıoğlu & Yaman, 2017), and in the dimensions of evaluation and research-investigation (Kösem, 2020).

The tests performed in this study to determine whether the self-efficacy perception levels of the pre-service teachers towards critical reading varied by grade level or not indicate that there is a significant difference between the groups. The analyses applied to determine the source of this difference demonstrate that this significant difference is between 1st and 3rd grades in favor of 3rd grade, between 1st and 4th grades in favor of 4th grade, between 2nd and 3rd grade in favor of 3rd grade. This finding is supported by other studies as well (Akdan, 2016; Topçuoğlu Ünal & Sever, 2013). Some scholars in the literature (Aybek & Aslan, 2015; Eskimen, 2018; Karabay et al., 2015; Özdemir, 2018; Şahin, 2019) conclude that there is no significant difference between grade level and self-efficacy perceptions towards critical reading. The results of the analyses on the difference imply that a significant difference mostly occurs when the difference between grade levels increases and that self-efficacy perception levels towards critical reading are high in the senior grades. This may result from the fact that as grade level increases, the qualified reading skills of students improve, depending on the department they study at. However, Topçuoğlu Ünal and Sever (2013) have reported that the self-efficacy perception levels of the junior-level students in the department of Turkish language teaching are higher than the levels of the senior-level students. Among the studies with pre-service Turkish language teachers, the studies by Akdan (2016) and Topçuoğlu Ünal and Sever (2013) argue that there is a difference between grade levels; furthermore, Özdemir (2018) and Şahin (2019) claim that there is no significant difference between grade level and self-efficacy perception levels towards critical reading.

The findings of the tests conducted to determine whether there is a significant difference in the sub-dimensions by grade level reveal that there is a difference between 1st and 3rd grade in favor of 3rd grade, as well as between 1st and 4th grade in favor of 4th grade in the sub-dimension of evaluation; between 1st and 3rd grade in favor of 3rd grade as well as between 1st and 4th grade in favor of 4th grade and between 2nd and 4th grade in favor of 4th grade in the sub-dimension of research-investigation. Moreover, a significant difference is identified between 1st and 2nd grade in favor of 2nd grade as well as 1st and 3rd grade in favor of 3rd grade and between 3rd and 4th grade in favor of 3rd grade in the sub-dimension of visual. It is notable that as grade level increases, the self-efficacy perception levels in the sub-dimensions are mostly higher.

The analyses performed to determine whether the self-efficacy perception levels of the pre-service Turkish language teachers significantly vary by academic grade point average, reveal that there is no significant difference between the groups with different academic achievement success. This implies that the self-efficacy perception levels of the students do not vary depending on academic achievement. Yet, Karabay et al. (2015) have reported a significant difference between the self-efficacy perception levels of pre-service teachers and their academic achievement. Indeed, there is a significant difference between the students with a grade point average of 1.99 and below and those with a grade point average of 3.00 and above in favor of 3.00 and above.

Further, the findings of the tests conducted to determine whether there is a significant difference in the sub-dimensions (evaluation, research-investigation, and visual) by academic grade point average reveal that there is no significant difference in all sub-dimensions. The lack of a significant difference in academic achievement in this study may result from the fact that all of the participants are students in the department of Turkish language teaching, entered into the university based on the same type of grade and thus had similar reading backgrounds. Indeed, Karabay et al. (2015) included students from different departments in the faculty of education in their study.

Also, the analyses performed to determine whether the self-efficacy perception levels of the pre-service Turkish language teachers significantly vary by reading frequency, reveal that there is a significant difference between all reading frequency groups. This finding overlaps with the findings of other studies (Akdan, 2016; Aşılıoğlu & Yaman, 2017; Aybek & Aslan, 2015; Eskimen, 2018; Şahin, 2019; Topçuoğlu Ünal & Sever, 2013). This difference is between the groups who read 1-5 books and 12 books and more books for the latter; between those who read 6-11 books and 12 books and more books for the latter; and between those who read 1-5 books and 6-11 books for the latter. For that reason, as reading frequency increases, the self-efficacy perception levels towards critical reading increase too. The findings of the studies performed only with the Turkish language teachers (Akdan, 2016; Şahin, 2019; Topçuoğlu Ünal & Sever, 2013) support this finding.

This study further ascertains a significant difference between the groups in the sub-dimension of evaluation by reading frequency. This difference is between those who read 1-5 books and 12 books and more books for the latter. Furthermore, there is a significant difference between the groups in the sub-dimension of research-investigation by reading frequency. This difference is between those who read 1-5 books and 12 books and more books for the latter.

Lastly, a significant difference is identified between the groups in the sub-dimension of visual by reading frequency. The analyses performed to determine the source of this difference show that this difference is between the groups (1-5) and (6-11) for the latter and between (1-5) and (12 and more) for the latter.

Reading is one of the best activities to develop thinking and evaluation skills, to distinguish between good and bad, right and wrong. Critical reading is closely related to advanced reading skills and culture. This can explain the finding that self-efficacy perception levels towards critical reading increase as reading frequency increases.

Based on its findings, this study proposes the following suggestions to improve self-efficacy perception levels towards critical reading and critical reading skills:

- Self-efficacy perception levels of students in different educational levels towards critical reading need further investigation.
- It is necessary to perform training and practices in undergraduate education to gain critical reading skills for pre-service teachers.
- Future studies need to focus on improving students' critical reading skills and seeking to determine their effects on student achievement and perceptions.
- Future studies need to investigate whether self-efficacy perceptions towards critical thinking predicts success in critical reading and understanding.
- Further correlational research is necessary to study critical listening, critical reading and self-efficacy perceptions towards critical reading.

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