An Examination of Critical Reading Self-efficacy Perceptions among the Students of the Faculty of Education Over Different Variables

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ABSTRACT This paper aims to examine the perceptions of self-efficacy for critical reading among the students of Faculty of Education over different variables. In this context, the researcher tried to find out whether a relationship exists between the students’ perceptions of self-efficacy for critical reading and their genders, departments, grades/class levels, social media using habits, academic achievement and educational background of their parents. The research results were obtained through the Critical Reading Self-Efficacy Perception Scale, the Attitude Scale towards Reading Habit and the Media Literacy Scale. The results show that female students have higher perceptions of self-efficacy for critical reading when compared to male. While there is a positive correlation between the students’ perceptions of self-efficacy for critical reading and their attitudes toward reading habits and media literacy, a negative correlation exists between their perceptions of self-efficacy for critical reading and social media using habits.

INTRODUCTION

Access to information is no longer a problem in today’s society with information technology. It is easier to obtain printed books, magazines and newspapers than it was in the past. Since the Internet is used widely today, people are paying more attention to the reliability of information rather than access to it. Instead of drinking Kool-Aid, people should question, evaluate and criticize the information they encounter in printed and visual media. Therefore, raising individuals with critical reading skills has been one of the privileged goals of education. At different stages of education, both experimental and descriptive papers have been written in order to provide students with critical reading skills. These papers commonly argue that classroom activities devoted to critical reading are more fruitful than other activities (Dalton 2009; Manning 1997; Marschall and Davis 2012; Ozensoy 2011; Teo 2014; Van Camp and Van Camp 2013).

Reading is one’s mental process toward a text. In its narrow sense, reading means analyzing a text composed of letters and trying to interpret it as a whole. In a larger sense, reading is the reader’s way of appropriating a literary text. In other words, it is a process through which one internalizes what he reads and makes use of it in every stage of his life. In this sense, reading is the most effective learning activity through which individuals can improve themselves in terms of critical thinking, developing new and different perspectives, understanding themselves and the world, and interpreting the events and situations they are going to encounter.

According to Oliveras et al. (2014), one of the aims of teaching reading at school is to help produce independent people who are capable of analyzing information critically and applying the knowledge they have acquired in a diverse range of situations. Students will need to identify the relevant data and arguments given in the article to analyze their credibility by comparing them with other sources.

An individual envisages while reading and evaluates the thoughts in a text. Therefore, teaching reading is an important focal point of education. According to Wang (2007), reading is not a single-factor process. It is a complex combination and integration of various cognitive processes, ranging from basic linguistic processes to the integration of the reader’s background knowledge, inferences and metacognitive processes.
Student knowledge should be enhanced with reading habits prior to critical reading skills. Only those who practice reading, know what and why they read, and read for a particular purpose, can become good readers and thereby, good critical readers. Students must master reading to prosper in the modern world, but this is not enough; they need to be enhanced with critical reading skills for long-term achievement (McDonald and Trautman 2006). Those who cannot get into the habit of reading cannot become critical readers. In short, students need to adopt a reading habit and enjoy reading in order to enhance themselves with critical reading skills.

Marschall and Davis (2012: 64) define critical reading as a process where students infer meaning from a text. According to them, students with a critical reading ability can question, hypothesize, and search for evidence and confirmation so they can go beyond the information given in a text by an author. In addition, Lipman (2013) emphasizes that the critical reader can ask if the methods presented truly describe the best means to answer the question(s) originally posed by the authors. According to Van Camp and Van Camp (2013), at the heart of critical reading is the notion that the reader is able to identify what a text does and how it does it. This then allows for more active readers who make connections with and within the material, thereby constructing new knowledge as they read.

According to Flemming (2011: 10), critical reading is not an entirely different understanding because one must understand a text thoroughly before being able to read it critically. Freire and Macedo (1987: 20) argue that “understanding” through critical reading means understanding the relationship between a text and its context. According to Flemming (2011), critical reading requires one to understand the main idea of a text, evaluate its conclusion, understand the ideas supported in it and evaluate the reasonable results.

McClune and Jarman (2011) identified certain indicators to analyze the students’ critical reading levels. According to these researchers, students who have a higher critical reading ability are able to evaluate new information by comparing it to what they already know and to information from other sources. At the same time, they are able to give reasons why they agree, disagree or would seek more evidence.

Kurland (2000) defines critical reading by way of critical thinking. According to him, even though the emphasis on decision-making is shared by both, critical reading and critical thinking, there are some differences between them. Critical reading is a technique for discovering information and ideas within a text. Critical thinking is a technique for evaluating information and ideas and for deciding what to accept and believe.

Students will need to identify the relevant data and arguments given in the article to then be able to analyze their credibility by comparing them with other sources (Oliveras et al. 2014). According to Collins (1993), in order to develop critical reading skills, teachers must create an atmosphere that fosters inquiry. Students must be encouraged to question, make predictions, and organize ideas that support value judgments. Tomasek (2009: 132) lays stress on out-of-class assignments and argues that students can be enhanced with critical reading skills by choosing significant and realistic purposes for their out-of-class reading assignments.

In critical reading, a reader reads a text with a strong skepticism and sets all his prejudices aside while evaluating and understanding it. Critical readers expound the expressions within a text and try to understand what the author intends to say. They know that all authors, including those of textbooks, may make mistakes. They bear in mind that everyone may stumble from time to time. They do not take any text as gospel without subjecting it to certain criteria. Critical readers ask themselves a series of questions while reading a book and wonder why it was written. They read and evaluate the whole text even if they disagree with the proposed ideas within it.

The literature related to self-efficacy perceptions of students towards critical reading includes several papers aiming to develop measurement tools for self-efficacy perceptions of students toward critical reading (Karadeniz 2014; Kucukoglu 2008; Unal 2006). There are also papers on students’ critical reading skills and attitudes toward reading (Unal 2006), the relationship between critical reading and critical thinking skills (Isik 2010), and the examination of students’ self-efficacy perceptions toward critical reading over different variables (Sadilioglu and Bilgin 2008; Unal and Sever 2013). In addition to these, the researchers have come across several pieces of research on the effects of syllabi on
critical reading skills when they are organized in parallel with critical reading (Orhan 2007; Ozensoy 2011).

There are various experimental and descriptive papers on critical reading skills in foreign literature. These papers examine the effects of using different reading materials on critical reading skills (Tomasek 2009; Tsai et al. 2013), effects of critical reading-oriented courses and syllabi on critical reading skills (Van Camp and Van Camp 2013; Yang 2011), critical reading levels of students (Duran 2013; Ko 2010; Oliveras et al. 2014), teacher opinions on critical reading (Harris 2004; Ko 2013), the relationship between critical reading and critical thinking skills (Lipman 2013; Manning 1997), and measurement tools for critical reading skills (Dalton 2009; Wang 2007).

When the relevant literature is scanned, it is seen that a great deal of both quantitative and qualitative researches on critical reading have been carried out abroad, but the amount of research in Turkey is inadequate. Therefore, the researchers need to conduct more research in this field. In this context, this paper aims to examine the students’ perceptions of self-efficacy toward critical reading in terms of their gender, grade, department they study in, educational background of their parents and academic achievement.

Considering the fact that students are spending a significant part of their time in front of television and social media tools, the researcher examined the effects of media literacy and social media using habits on students’ perceptions of critical reading self-efficacy as well. People with scientific (critical) literacy should not only be able to read and interpret (a text), but also criticize knowledge reported in mass media (Tsai et al. 2013). Moreover, students can use social media to carry out a discussion on a topic, share ideas about education and follow the latest announcements (Benzer 2013).

Objectives of the Paper

This paper was carried out to see whether there is a significant relationship between media literacy levels and attitudes toward reading habits between the education students (pre-service teachers) who possess critical reading skills and those lacking such skills. For this general purpose, the researcher tried to answer the following questions:

1. Do critical reading self-efficacy perceptions differ with gender?
2. Do students’ critical reading self-efficacy perceptions differ with the departments they study in?
3. Do students’ critical reading self-efficacy perceptions differ with their grades/class levels?
4. Is there a relationship between students’ critical reading self-efficacy perceptions and their attitudes toward reading habit, media literacy, academic achievement, social media using habits and educational background of their parents?
5. To what extent do the students’ media literacy and attitudes toward reading account for their critical reading self-efficacy perceptions?

METHODOLOGY

Research Model

With the aim of examining the education students’ perceptions of self-efficacy toward critical reading in terms of their attitudes toward reading habit, media literacy, gender, grade, department, academic achievement and educational background of their parents, a relational screening model was used in the present research. Among general screening models, relational models are research models used to determine the existence and/or extent of covariance between two or more variables (Karasar 2005: 81).

Working Group

The present research was conducted with 743 pre-service teachers (chosen through random assignment) out of 2100 pre-service teachers receiving education at Ahi Evran University Faculty of Education in the spring term of the 2013-2014 academic year. The sample size was satisfactory enough to interpret the results obtained via measurement tools at a confidence interval of ninety-five percent ($p < 0.05$) (Fraenkel et al. 2012). In the research group, 207 participants were in the first grade of university, 127 in the second grade, 217 in the third grade, and 192 were in the fourth grade. Further, 147 of the participants were from the Turkish Language Teaching Department, 118 from Social Sciences Teaching, 112 from Science Teaching, 108 from Primary School Teaching, 138 from Mathematics Teaching and 120 from Computer Technologies Teach-
The research group was made up of 250 male students and 493 female students.

**Data Collection Instruments**

The required data was collected through personal information forms, the Critical Reading Self-Efficacy Perception Scale, the Attitude Scale towards Reading Habit and the Media Literacy Scale. The measurement tools were analyzed in terms of validity and reliability, and the results are as follows.

The Critical Reading Self-Efficacy Perception Scale, developed by Karadeniz (2014), was applied to 453 students out of the sample in order to see its model relevance. The researcher with a confirmatory factor analysis tested values of model relevance. The results are as follows: $x^2/df = 3.35$; RMSEA = 0.056; SRMR = 0.041; GFI = 0.89; AGFI = 0.87; CFI = 0.98; IFI = 0.98; and NFI = 0.97. In addition, the internal consistency of the scale was evaluated through Cronbach’s alpha coefficient and was set as $\alpha = 0.937$.

The Attitude Scale towards Reading Habit, developed by Gomleksiz (2004), was applied to 421 students out of the sample, and its confirmatory factor analysis yielded the results below: $x^2/df = 4.74$; RMSEA = 0.075; SRMR = 0.049; GFI = 0.88; AGFI = 0.85; CFI = 0.97; IFI = 0.97; and NFI = 0.97. The scale’s internal consistency was also analyzed through Cronbach’s alpha coefficient and it was found to be $\alpha = 0.931$.

The Media Literacy Scale, developed by Korkmaz and Yesil (2011), was applied to 432 students out of sample and its confirmatory factor analysis results are as follows: $x^2/df = 3.96$; RMSEA= 0.065; SRMR = 0.054; GFI = 0.89; AGFI = 0.87; CFI = 0.98; NFI = 0.97; IFI = 0.97; and NFI = 0.97. Its internal consistency was also evaluated through Cronbach’s alpha coefficient and it was found to be $\alpha = 0.847$.

When the confirmatory factor analysis results above are examined, it is apparent that these compatibility values are at acceptable levels (Joreskog and Sorbom 1993: 123; Raykov and Marcoulides 2006: 43). The results regarding Cronbach’s alpha coefficient are also at favorable levels (Field 2005: 668).

**Data Analysis**

Before deciding on which statistical method will be used in the research, the researcher checked whether the research data conforms to normal distribution. In order to test the conformity of data to normal distribution, the Kolmogorov-Smirnov test was applied, as the number of data is bigger than 50 (Wright 2006: 94). As a result of this normal distribution test, the significance value was found to be greater than 0.05, and the data was regarded as normally distributed considering kurtosis, skewness coefficients and histogram graphics. Therefore, parametric tests, notably independent t-tests and one-way analysis of variance (ANOVA) were used while analyzing the research data. As the data shows normal distribution, correlation and regression, analyses were also carried out to determine the relationship between critical reading self-efficacy perception and the other variables (Norman and Streiner 2003).

**FINDINGS**

This section comprises the results based on the data collected in accordance with the sub-problems of this research. Table 1 shows the statistical values regarding the students’ critical reading self-efficacy perceptions analyzed according to their genders.

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>250</td>
<td>3.89</td>
<td>.496</td>
<td>2.488</td>
<td>.013</td>
</tr>
<tr>
<td>Female</td>
<td>493</td>
<td>3.98</td>
<td>.475</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 1, it is seen that the averages scored by students on the scale for critical reading self-efficacy perceptions differ to a statistically significant extent in terms of the gender variable ($p < 0.05$). Arithmetic averages of the groups indicate that this difference is in favour of female students. This result shows that the students’ critical reading self-efficacy perceptions differ on the basis of gender, and female students have a higher perception of self-efficacy for critical reading compared to male students. Table 2 shows the statistical values concerning the students’ critical reading self-efficacy perceptions analyzed in terms of the departments they study in.

As seen in Table 2, the students’ critical reading self-efficacy perceptions differ to a significant extent with regard to their departments ($p < 0.05$).
According to the Scheffé test, which the researchers conducted to find out the source of difference between the groups in terms of departments, there is a significant difference between the scores of Turkish Language Teaching students and Mathematics Teaching students. When the arithmetic averages of the groups are examined, it is seen that critical reading self-efficacy perceptions of Turkish Language Teaching students are higher than those of the other departments. Table 3 shows the statistical values regarding the students’ critical reading self-efficacy perceptions analyzed in terms of their grades/class levels.

In Table 3, it is seen that the students’ critical reading self-efficacy perceptions do not differ significantly with their grades (p > 0.05). This result means that critical reading self-efficacy perceptions do not differ significantly with their grades. Table 4 presents the statistical values concerning the relationship between students’ critical reading self-efficacy perceptions and their attitudes toward reading habit, media literacy, academic achievement, educational background of their parents, and social media using habits.

Table 4 indicates a high-level and positive relationship between critical reading self-efficacy perceptions and attitudes toward reading habit (r=0.533, p<0.01) and media literacy (r=0.572, p<0.01). On the other hand, the correlation between critical reading self-efficacy perceptions and academic achievement seen in the same table indicates a low-level relationship (r=0.111, p<0.01) between these two variables (Cohen 1988; Huck 2008). This result shows that a relationship exists between the students’ critical reading self-efficacy perceptions and their academic achievement, albeit at a low level.

As for the correlation between the students’ critical reading self-efficacy perceptions and educational background of their parents, r-values do not indicate a relationship between these variables (r=0.037, p>0.05; r=0.43, p>0.05).

Table 4 shows that there is a low-level and negative relationship (r = -0.077, p < 0.05) between the students’ critical reading self-efficacy
perceptions and their social media using habits. This means that there is an inverse correlation between the students’ critical reading self-efficacy perceptions and their social media using habits. In other words, the more critical reading skills they have, the less social media using habits they have.

Table 5 shows the results of a stepwise regression analysis on how the students’ critical reading self-efficacy perceptions are explained by their attitudes toward reading habit and media literacy.

Table 5: Results of the stepwise regression analysis for predicting the scores of students for critical reading self-efficacy perceptions

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Std error</th>
<th>$R^2$ change</th>
<th>$F$ change</th>
<th>$F$ regression</th>
<th>Beta</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>.53</td>
<td>.28</td>
<td>13.52</td>
<td>.28</td>
<td>294.52</td>
<td>294.52</td>
<td>.35</td>
<td>11.31</td>
</tr>
<tr>
<td>HabMediaLiter</td>
<td>.65</td>
<td>.42</td>
<td>12.12</td>
<td>.14</td>
<td>182.48</td>
<td>274.57</td>
<td>.41</td>
<td>13.50</td>
</tr>
</tbody>
</table>

DISCUSSION

The Results Related to the First Sub-problems of the Paper

When the relationship between the students’ critical reading self-efficacy perceptions and their genders is analyzed in line with the first sub-problem of this paper, a significant difference is seen in favour of female students ($p < 0.05$). Based on this result, it is conceivable that female students can be more successful in acquiring critical reading skills than male students.

Several similar papers also conclude that critical reading self-efficacy perceptions are significantly higher among female students as compared to male students (Hall and Coles 1997; Orhan 2007; Sadilioglu and Bilgin 2008). On the other hand, Unal and Sever (2013) argue that critical reading self-efficacy perceptions do not change on the basis of gender. In short, critical reading self-efficacy perceptions can be said to change on the basis of gender and in favour of female students.

The Results Related to the Second Sub-problems of the Paper

Critical reading self-efficacy perceptions of students were examined according to their departments and grades. It is seen that Turkish Language Teaching students have higher perceptions of self-efficacy for critical reading in general as compared to the other departments. There is a significant difference in the terms be-
tween the departments of Turkish Language Teaching and Mathematics Teaching. However, there is no significant difference between the scores of other departments on the scale for critical reading self-efficacy perceptions. This result possibly stems from the fact that students of the Turkish Language Teaching Department are to take a series of reading courses and naturally read a great number of books during their education.

The Results Related to the Third Sub-problems of the Paper

When the students’ critical reading self-efficacy perceptions were examined according to their grades/class levels, no significant difference was found between the class levels \( p > 0.05 \). In a paper on the third- and fourth-grade students of the Turkish Language Teaching Department, Unal and Sever (2013) report a significant difference in favour of the third-grade students. This possibly results from the fact that students of Turkish Language Teaching take teaching reading courses in their third year of education.

The Results Related to the Fourth Sub-problems of the Paper

This paper also involves an examination of the relationship between the students’ critical reading self-efficacy perceptions and their attitudes toward reading habit, media literacy, educational background of their parents, academic achievement and social media using habits. A positive and significant relationship exists between the students’ critical reading self-efficacy perceptions and their attitudes towards a reading habit \( r = 0.533, p < 0.01 \) and media literacy \( r = 0.572, p < 0.01 \). In the same vein, Unal (2006) and Hou (2011) conclude that there is a high-level relationship between one’s critical reading and his attitude toward reading.

Moreover, when examining papers on critical thinking and reading habits, there is a close relationship between them (Serin 2013). Oliveras et al. (2014) expressed that the results of this paper show that reading activities helped the students connect their science lessons at school with the real world.

Although the correlation coefficient between the students’ critical reading self-efficacy perceptions and their academic achievement is low, this relationship is positive and significant \( r = 0.111, p < 0.01 \). Based on this result, it can be said that the more academically successful they are, the more their critical reading skills improve.

A low-level inverse correlation exists between the students’ critical reading self-efficacy perceptions and their habits of social media use. The less they use social media, the more their critical reading skills improve \( r = -0.077, p < 0.05 \). This is not a surprising result because there is an inverse correlation between the variables of reading habit and social media using habit. In other words, the more they use social media, the less time they allocate to reading.

The Results Related to the Fifth Sub-problems of the Paper

Another result of this paper is that the perception of self-efficacy toward critical reading is explained by attitudes toward reading habit at the rate of twenty-eight percent and by media literacy at the rate of fourteen percent. According to this result, forty-two percent of critical reading self-efficacy perceptions are explained by the two independent variables: one is attitude toward reading habit and the other is media literacy. As a conclusion, reading habits and media literacy can be conceived as significant predictors of self-efficacy perceptions toward critical reading.

CONCLUSION

In this paper, perceptions of self-efficacy for critical reading among university students were examined over different independent and dependent variables. The independent variables are gender, grade/class level, department, educational background of parents and social media using habits. The dependent variables include attitudes towards a reading habit and media litera-
The research results can be summarized as follows.

When the relationship between the students’ critical reading self-efficacy perceptions and their genders is analyzed, a significant difference and their perceived self-efficacy is seen in favor of female students ($p < 0.05$).

It is seen that Turkish Language Teaching students have higher perceptions of self-efficacy for critical reading in general, as compared to the other departments. There is a significant difference in these terms between the departments of Turkish Language Teaching and Mathematics Teaching. However, there is no significant difference between the scores of other departments on the scale for critical reading self-efficacy perceptions.

When the students’ critical reading self-efficacy perceptions were examined according to their grades/class levels, no significant difference was found for this variable ($p > 0.05$).

A positive and significant relationship exists between the students’ critical reading self-efficacy perceptions and their attitudes towards a reading habit ($r = 0.533, p < 0.01$) and media literacy ($r = 0.572, p < 0.01$). Although the correlation coefficient between the students’ critical reading self-efficacy perceptions and their academic achievement is low, this relationship is positive and significant ($r = 0.111, p < 0.01$). No significant relationship is discerned between the students’ critical reading self-efficacy perceptions and their parents’ educational background. A low-level inverse correlation exists between the students’ critical reading self-efficacy perceptions and their habits of social media use ($r = -0.077, p > 0.05$).

Another result of this paper is that the perception of self-efficacy toward critical reading is explained by attitudes toward reading habit at the rate of twenty-eight percent and by media literacy at the rate of fourteen percent.

**RECOMMENDATIONS**

Students should first become good readers before being good critical readers. Therefore, it is important to engage students in activities that help them in form reading habits. Instead of just adhering to course books, teachers should provide students with books other than course books to improve their students’ reading skills. This will positively affect students’ reading habits and attitudes toward reading.

When the results were analyzed according to the departments, students of the Turkish Language Teaching Department had the highest scores on the Critical Reading Self-Efficacy Scale. This result stems from the fact that students of Turkish Language Teaching have courses related to reading and are obliged to read many books during their education. Considering this fact, other departments should also have courses for reading.

It is important for students to use social media in a conscious way. University students are expected to have habits and skills of using social media. However, it is seen that there is a negative relationship between the students’ reading habits, critical reading self-efficacy perceptions and media literacy levels. Media literacy courses in high schools should be taught in a more efficient and healthy way.

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