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The Analysis of English Language Instructors' Critical Thinking Dispositions

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ABSTRACT

The aim of this study is to investigate whether English language instructors' critical thinking dispositions change according to their education level, gender, experience, the level they teach and the faculty they graduated from. The scope of this study is composed of 112 English language instructors working at the preparatory schools of Hacettepe University, Çankaya University, İzzet Baysal University and Gazi University. In this study the general scanning model is used within the scope of descriptive research. The data collection instrument used in this study is "California Critical Thinking Disposition Scale", which was translated into Turkish by Kökdemir in 2003. To answer questions 1, 2 and 5, one independent variable with 2 categories and one dependent variable T-test was done. Moreover, for both groups normality distributions were analyzed. Besides this, for the homogeneity of variance, the test of Levene was implemented. For questions 3 and 4, one independent variable with three categories and one dependent variable one-way ANOVA was implemented. Additionally, normality distribution was analyzed for each group's dependent variable. In order to analyze the differences between groups Post-hoc Bonferoni was conducted. According to the findings of the study, there is no significance between English language instructors' critical thinking dispositions and their education level or the years of experience they have. However, there is significance between their critical thinking skills and their gender, the level that they teach and faculties they graduated from.

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Keywords:
Critical Thinking, Critical Thinking Disposition, English Language Instructors

Introduction

With the advance of lifelong learning, educational institutions have become increasingly important. Learning to think has become more crucial than information exchange in education. In this context, critical thinking has been touched upon in many resources. Cotton (1991) states that critical thinking is an important skill needed in various working areas. Although critical thinking is a popular term, there is no clear-cut definition of it. In this context, when the literature review is analyzed, it is evident that the concept of critical thinking dates back to Socrates 2500 years ago. The Socratic questioning technique suggests criticizing topics from different perspectives. According to Socrates, one cannot turn his claims into knowledge just by questioning his own experiences. In light of these thoughts, Socrates came up with "classical critical thinking", which questions one's common beliefs and explanations. Plato and Aristoteles followed Socrates. All these thinkers claimed that reality is different from what is apparent (Center for Critical Thinking, 2003).

John Dewey is accepted as one of the pioneers of critical thinking in the field of education (Dewey, 1909). Dewey (1909) had an impact on critical thinking studies. According to him, critical thinking is an active process, and it needs thorough interpretation and questioning and he also suggested a student centered learning approach (Kanık, 2010).

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Paul (1995) came up with the most detailed definition. He defines critical thinking as a unique and intentional thinking skill. According to this definition, critical thinking helps individuals think systematically. As understood from these various definitions, there is no common definition of critical thinking, but the point is that critical thinking is an intentional, reflective thinking pattern that requires skills. The various dimensions of critical thinking are another important aspect to consider. According to Paul (1995), critical thinking has three important dimensions. Those are, thinking correctly, the elements of thought and thinking domains. Patrick (1986) indicates that if teachers ask challenging questions to students and require detailed answers, it is possible for students to enhance their critical thinking skills. On the other hand, Paul (1995) claims that one should avoid the didactic approach when teaching critical thinking. He adds that a student should analyze and synthesize information before coming to a conclusion. In addition to this, students should be active in the learning process and cooperate with each other. When a student encounters critical thinking for the first time, this skill can be taught to him directly. However, direct learning is not adequate in teaching critical thinking skills. In this respect, it is not effective when teachers explain the skills to the students and demonstrate how to use them (Huitt, 1998; cited in Sternberg, 1987). As the term is really important, another issue later came to mind. How about the assessment of critical thinking? After the studies of critical thinking are analyzed it can be easily seen that there are some common assessment tools, such as California Critical Thinking Skills Test, the Critical Thinking Disposition Inventory and Watson-Glaser Critical Thinking Appraisal (Racchini, 2007). They all try to measure critical thinking skills in some regard.

The teaching of English as a foreign language is mandatory from the second grade of primary school in the Turkish education system. The aim of the English national curriculum is to develop knowledge in four basic skills (listening, speaking, reading and writing) so students can take the responsibility of his/her own learning and solve problems. As it can be inferred from the aim that these can be realized thorough critical thinking. However, although the students started learning English at an early age when they come to university, most of the students have to start preparatory classes from elementary level, which is the basic level of English. For that reason the Turkish education system is always criticized because it spoon feeds students and transmits knowledge into their brain without questioning it.

When that information is taken into account, the qualifications of teachers have a crucial role in teaching critical thinking. Whatever their majors are, the main duty of the teachers should be to help educate individuals who can create new things, question knowledge, and think critically. In this respect, teachers should give importance especially their education level, their year of experience and the level they teach. Because, as critical thinking skill is higher level thinking skill, it is expected that as the teacher gains more experience and continues his/her education, he/she can transfer such kind of higher skills to students. Moreover, when teachers have more experienced in their field, they will be more aware of the need of critical thinking and try to avoid spoon feed their students. Briefly, those things depend on basically a good teacher education. If teachers are not trained to be able to help students gain these skills, the teachers themselves are going to be the biggest obstacle for students in gaining critical thinking skills. Moreover, in the literature some studies are conducted to investigate the relation between gender of teachers and their critical thinking disposition (Karagöl & Bekmezci, 2015; Çetin, 2008; Akar, 2007). Accordingly, the aim of this study is to investigate whether English language instructors' critical thinking dispositions change according to their education level, gender, experience, the level they teach and the faculty they graduated from.

This study is important in terms of determining the English language instructors' critical thinking dispositions and the factors affecting their critical thinking dispositions. The findings might serve as a source for institutions that have English language teaching faculties. Furthermore, if a clue is found about teachers and their critical thinking dispositions, it can help us to understand to what extend they use critical thinking strategies in their classes. Moreover, critical thinking in the field of language teaching is a new concept, so the literature review is analyzed, there is not much research indicating the relationship between English language teaching in Turkey and critical thinking, so this study also significantly contributes towards literature review and the studies about this topic will continue to increase. Within the scope of this information the following research question and sub -questions are tried to be answered in this research.

Do English language instructors' critical thinking dispositions change according to their academic background and gender?

1- Do English language instructors' critical thinking dispositions change according to their education level?

2- Do English language instructors' critical thinking dispositions change according to their gender?

3- Do English language instructors' critical thinking dispositions change according to their experience?

4- Do English language instructors' critical thinking dispositions change according to the level they teach in?

5- Do English language instructors' critical thinking dispositions change according to the faculty they graduated from?

Method

Research Model

In this study the general scanning model is used within the scope of descriptive research. Karasar (2006) states "the General Scanning Model is a model that explains a situation as it is". In addition, expressions of purpose are expressed through question sentences, such as what, about what, what is it composed of, etc. When the scope of this study is considered, as the research problem is a question sentence and our research answers the question of "what", the general scanning model is seen as the most appropriate model for this study.

Study Group

This research was conducted in 2013 and the scope of this study is composed of 112 English language instructors working at the preparatory schools of Hacettepe University, Çankaya University, İzzet Baysal University and Gazi University. For this study, the sample was not chosen since it was estimated that all the instructors were thought to be contacted. However, in contrast to these estimations, some instructors were not contacted and some of the instructors didn't want to answer the questions and also some of them submitted incomplete questionnaires. There are 112 instructors who have participated in this study. Therefore, incidental sampling was used. That is, incidental sampling is used when conveniently available people are chosen, and researchers use this kind of sampling when the subjects are easily reached (Büyüköztürk et al., 2010).

Data Collection Instrument

In this study, it was analyzed whether there is a considerable difference between English language instructors' critical thinking dispositions and their education level that is bachelor degree or master degree (BA or MA), gender, experience (between 1-5 years, between 6-10 years and more than 10 years), the level they teach (beginner, intermediate, or upper-intermediate) and the faculty that they graduated from (education faculty and faculty of letters). Within the scope of this purpose, the data collection instrument used in this study is the "California Critical Thinking Disposition Scale", which was adapted for Turkish publication by Kökdemir in 2003. This scale was first developed as a result of the Delphi Project organized by American Philosophers Association in 1991. The original scale has 7 sub scales and 75 questions. Those dimensions are; truth seeking, open mindedness, analyticity, maturity, self-confidence and inquisitiveness. The internal coefficient of consistence of sub scales is between .60 and .78. For the total score of the scale, the internal coefficient of consistence is .90 (Kökdemir, 2003). 913 students were used for the adaptation study. The original scale was reduced to 51 questions and 6 dimensions. For the new scale, the internal coefficient of consistence of sub scale is .61 and .78. For the total score of the new scale, the internal coefficient of consistence is .88. Before conducting this study, necessary permission was taken. As a result of the analysis, the internal coefficient of consistence was found .87. During data analysis, SPSS 15.0 was used. To answer the 1.,2.,5., questions, as there is one independent variable having 2 categories and one dependent variable T-test was done. Moreover, for both groups normality distributions were analyzed. Besides, for the homogeneity of variance, the test of Levene was implemented. For the 3. and 4. questions, as there is one independent variable having three categories and one dependent variable one-way ANOVA was

implemented. Moreover, normality distribution was analyzed for each group's dependent variable. In order to analyze the differences between groups Post-hoc Bonferoni was conducted.

Findings

According to Levene test, as p>.05 both groups variances' are homogeneous. Assumptions are held for independent test.

Findings Related To English Language Instructors' Critical Thinking Dispositions and Their Education Level

Table 1. English Language Instructors' Critical Thinking Dispositions Scores According To Their Education Level

Education Level	N	Mean	sd.	t	df	p
Bachelor	30	2.250.667	2.335.178	-1.188	102	.238
Master	74	2.301.892	1.839.273			

In order to analyze the differences between groups, independent sample T-test was used. That is, there is no significance between their critical thinking dispositions and their education level ($t_{(102)}$=-1,188, p>.05).

Findings Related To English Language Instructors' Critical Thinking Dispositions and Their Gender

Table 2. English Language Instructors'' Critical Thinking Dispositions Scores According To Their Gender

Gender	N	Mean	sd.	t	df	p
Female	83	2.337.711	1.661.789	4.712	110	.000
Male	29	2.155.862	2.118.544			

In order to analyze the differences between groups, independent sample T-test was used. There was significantly difference between girls and boys with %95 confidence interval ($t_{(110)}$=4,712, p<.05). Hence, females have higher critical thinking skills than males.

Findings Related To English Language Instructors' Critical Thinking Dispositions and Their Experience

The findings related to the sub-problem "Do English language instructors' critical thinking dispositions change according to their experience?" are given in Table 3.

Table 3. English Language Instructors' Critical Thinking Dispositions Scores According To Their Experience

Experience	N	Mean	sd.		Sum of Squares	df	Mean Square	F	Sig.
Between 1-5 years	45	226.77	21.16	Between Groups	587,738	2	293,869	0,768	0,467
Between 6-10 years	32	228.81	15.95	Within Groups	41730,824	109	382,852		
More than 10 years	35	232.22	20.39	Total	42318,563	111			

Moreover, in order to analyze the differences between groups, one way ANOVA was done. That is, there was no significance difference between their critical thinking dispositions and their year of experience ($F_{(2,109)}$=.768, p>.05).

Findings Related To English Language Instructors' Critical Thinking Dispositions and the Level They Teach

The findings related to the sub-problem "Do English language instructors' critical thinking dispositions change according to the level they teach?" are given in Table 4.

Table 4. English Language Instructors' Critical Thinking Dispositions Scores According To the Level They Teach

Level	N	Mean	sd.		Sum of Squares	df	Mean Square	F	Sig.
Elementary	31	231.83	24.89	Between Groups	2927,576	2	1463,788	4,05	0,020
Intermediate	60	224.65	42.476	Within Groups	39390,986	109	361,385		
Upper-Intermediate	21	237.57	16.75	Total	42318,562	111			

Moreover, in order to analyze the differences between groups, one way ANOVA was done. That is, there was statistically significance between their critical thinking dispositions and the level that they teach ($F_{(2,109)}$=4.05, p<.05). In order to analyze the difference between groups, Post-Hoc Bonferroni technique was used. It was shown in table 5.

Table 5. Multiple Comparison Table between Levels of Teaching

(I)Level they teach	(J)Level they teach	Mean Difference (I-J)	Std. Error	Sig.
Elementary	Intermediate	-7,18871	4,20484	0,271
	Upper-Intermediate	-12,92143*	4,81995	0,025
Intermediate	Elementary	7,18871	4,20484	0,271
	Upper-Intermediate	-5,73272	5,37275	0,865
Upper-Intermediate	Elementary	12,92143*	4,81995	0,025
	Intermediate	5,73272	5,37275	0,865

According to Table 5, it was found that there is statistically significant difference between elementary and upper-intermediate instructors with %95 confidence interval (p<.05). Since upper-intermediate instructors' mean of critical thinking scores higher than elementary instructors' mean, upper-intermediate have higher critical thinking than elementary instructors.

Findings Related to English Language Instructors' Critical Thinking Dispositions and The Faculty They Graduated From?

The findings related to the sub-problem "Do English language instructors' critical thinking dispositions change according to the faculty they graduated from?" are given in Table 6.

Table 6. English Language Instructors' Critical Thinking Dispositions Scores According To the Faculty They Graduated from

Level	N	Mean	sd.	t	df	p
Education Faculty	58	223.9138	17. 993459	-2,994	110	,003
Faculty of Letters	54	234.5926	19. 75082			

In order to analyze the differences between groups, independent T-test was used. That is, there is significance difference between their critical thinking dispositions and the faculty they graduated from. ($t_{(110)}$=-2,994, p<.05). Students from faculty of letters have higher critical thinking than students from education faculty.

Discussions, Results and Suggestions

For the first sub-problem "Do English language instructors' critical thinking dispositions change according to their education level?" The following results are found.

English language instructors' education levels do not affect their critical thinking dispositions. This result might show that critical thinking skills aren't acquired during higher education. In contrast, one should acquire this skill during his/her primary, secondary or high school years. When the literature is analyzed there is a study indicating whether the education level of a teacher affects their critical thinking dispositions. The research conducted by Kutlu and Schreglmann in 2011 aimed at describing the relation between lecturers' titles, faculties, universities and their critical thinking dispositions. The results of this research indicated that the titles, faculties and universities of lecturers don't affect their critical thinking

disposition. However, Shell (2000) investigated the problems that hinder nurses' critical thinking dispositions. The students studying at the nursing faculty were the participants of the study. According to the results of the research the biggest problem that hinders students to acquire critical thinking skill is their teachers' education level and their perception about this issue. This result of the research shows us that although higher level of educational development is expected in MA level, there is no difference between them in terms of developing critical thinking dispositions of people. Therefore, as education is a continuous process, the building of each element of it should be based on the development of a person.

For the second sub-problem "Do English language instructors' critical thinking dispositions change according to their gender?" the following results are found.

The gender of English teaching instructors affects their critical thinking dispositions, so males' critical thinking dispositions are lower than females' critical thinking dispositions. In this respect, critical thinking disposition is a kind of skill that varies according to genders. The research conducted by Kelly (2003) also supports this result. Kelly made this research in order to reveal the critical thinking disposition of students of education faculty. According to the results of this study, there is a considerable relation between gender, age, and education level, major and critical thinking disposition. Moreover in the research of Hayran (2000), it is revealed that there is a significant relation between gender of instructors and their critical thinking disposition. In contrast, Semerci (2000) aimed at revealing the critical thinking dispositions of education faculty students in the east of Turkey. The results indicated that senior students' critical thinking disposition do not show considerable difference according to their gender. However, it shows significant difference according to their universities and departments. Moreover, Özdemir (2005) conducted a study related to the level of university students' critical skills and their gender, the place they were born, and their socio economic background. 128 education faculty students from a public university were participated to the study. The findings of the study emphasized that there was no statistically significant difference between the participants' critical thinking skills and their gender, place of birth and their socio economic level.

For the third sub-problem "Do English language instructors' critical thinking dispositions change according to their experience?" the following results are found.

English language instructors' experience level does not affect their critical thinking dispositions. This result shows that there is no significance between inexperienced and experienced teachers. This is an unexpected result for this study. Because before the study was conducted it was assumed that the more experience you are, the more critical you think. However, this result shows us that critical thinking disposition may not change based on the experience level of the teachers. Different factors are more influential on their critical thinking dispositions. This result depends on two reasons: few numbers of participants and the idea that critical thinking disposition is acquired even before higher education, such as primary, secondary and high school. When the literature is analyzed, there are some researches supporting this finding. Howe (2004) made a research in order to compare critical thinking perceptions of secondary school teachers in Canada and Japan. It is concluded that whatever their qualifications, ages and majors are, teachers consider teaching of critical thinking is a superficial teaching activity. Similarly, Palmer (2007) aimed at revealing critical thinking dispositions of part time lecturers having different majors in liberal arts universities in the west of U.S. The sample of this study was 120 lecturers. The results of this study indicated that the experience level of lecturers do not affect their critical thinking dispositions. Besides the studies of Yeh (2007) and İrfaner (2002) also supports these findings and came to a conclusion that experience level of instructors does not have an effect on teachers' critical thinking skills.

For the fourth sub-problem "Do English language instructors' critical thinking dispositions change according to the level they teach in?" the following results are found.

The level that English language instructors teach, affects their critical thinking dispositions. This result might indicate that in higher levels the students receive education that helps them to acquire critical thinking skills. Within the framework of this finding, there is no study revealing the relation between English language instructors' critical thinking dispositions and the level they teach.

For the fifth sub-problem "Do English language instructors' critical thinking dispositions change according to the faculty they graduated from?" the following results are found.

The faculty that the English language instructors' graduated from has an effect on their critical thinking dispositions. This result emphasizes that the teachers graduated from education faculties are behind the students graduated from faculty of letters in terms of their critical thinking skills. Accordingly, between the years of 1994-1998 a project was conducted by the cooperation of World Bank and YOK (Higher Education Board) about preservice teacher education. The report emphasized that the curriculum of education faculties and faculty of letter started to be similar, but there is no effective cooperation between those faculties. The report indicated that the sources of Ministry of National Education were not used for qualified teacher training instead they were used for doing researches (Akdemir, 2013). This result is really important in terms of the contribution of the educational process of the faculty of education and within the scope of this information, it can be said that there should be an effective communication between education faculties and faculty of letters. Moreover, the content of the curriculum of education faculties should be looked through in detailed and especially it should enforce higher level thinking skills.

Based on the results of this research it can be suggested that as the educational development of a person continues to a higher level, more critical thinking dispositions should be implemented in Master programs compared to bachelor programs. Furthermore, curriculum of English classes varies according to the level of the students. That is, a variety of curriculum from elementary to advanced level is implemented, so the content of the curriculum should also be enriched by using higher thinking skills in parallel to the level of the students. That's why, more critical thinking materials should be implemented in higher levels compared to lower levels. As a final remark, it is suggested that the curriculum of educational faculties and faculty of letters should be reconsidered in order to prevent the differences between them.

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