THE EFFECT OF CULTURAL INTELLIGENCE ON EFL LEARNERS' PROFICIENCY

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Abstract

Cultural Intelligence (CQ) has been an essential element in the world as the intercultural settings and the need for communication between the countries gain prominence. It has been a part of the language learning process due to the fact that language learning per se conveys the culture in it. This study investigates the cultural intelligence of the participants and the relationship between cultural intelligence and foreign language proficiency by using a correlational study. The research was conducted in the preparatory class at a state university. As the participants, 86 randomly selected students were incorporated. The Turkish version of the Cultural Intelligence Scale (CIS), which contains 20 items with 7-point Likert type, was used to analyze the participants' cultural intelligence and the placement test scores which had been conducted at the beginning of the semester by the state university was utilized as the language proficiency indicator. According to the results, the study showed a significant positive correlation between participants' CQ levels and their language proficiency levels. The study aimed to shed light on participants' CQ levels and whether the CQ affects foreign language learning.

Keywords: *Correlational study, Cultural intelligence, Cultural intelligence scale, CQ, EFL Proficiency, Language learning*

1. Introduction

1.1 Cultural Intelligence

Cultural intelligence (CQ) was first established by Early and Ang (2003), and it is defined as a person's ability to function and manage effectively in a multicultural environment (Earley & Ang, 2003). In other words, cultural intelligence can also be defined as understanding and having the enthusiasm to learn about other cultures. Cultural intelligence consists of four components which are cognition, metacognition, motivation and, behavior (Ang et al., 2007). Cognitive CQ is a measure of general cultural knowledge and knowledge systems. The mental ability to acquire and interpret cultural knowledge is reflected by metacognitive CQ. Motivational CQ is the individual ability to have excitement toward learning about and operating in intercultural circumstances. Finally, behavioral CQ states individuals' ability to demonstrate acceptable verbal and nonverbal actions in culturally varied encounters (Ang & Dyne, 2008).

1.2 Cultural Intelligence and Language Learning

Early (2002) believes that those who lack the ability to learn languages, at least to a fair level of skill, have a low CQ. Moreover, Ang and Dyne (2008) claim that there is a positive

relationship between language skills and CQ. We could refer that we can use the CQ to predict the students' language-learning ability in the language learning classrooms.

Exposure to many cultures might be considered the main component that intensifies cultural intelligence (Crowne, 2008). Living in a different country could affect the level of cultural intelligence and naturally enhance it. It does not mean that it can only be enhanced by living abroad. Also, in the classrooms, the level of cultural intelligence can be analyzed and supported with cultural activities. Alahdadi and Ghanizadeh (2017) posit that the learners with a higher CQ perform better in tasks such as task completion, connection building, and communication; hence, it is obvious that language acquisition is fully embedded within a given cultural context. Cultural contexts might be adapted in the process of teaching and learning a language.

By means of this, having a high level of cultural intelligence might be one of the major factors of the ability or the motivation to learn a foreign language. If there is an evident correlation between cultural intelligence and language learning, this can be used as important evidence of the success of language learning in the classrooms. There is currently no information on what causes greater CQ levels (Crowne, 2008). However, understanding CQ will provide some insight for both teachers and students during the process of language learning.

Language proficiency has long been a prominent issue in foreign or second language studies since defining and measuring proficiency in language learning for non-native speakers is a difficult task. Morrow (1979) defines language proficiency as how effective the person is expected to be as a language user in common sense. According to the traditional perspective, grammar and lexis are the main dominances of proficiency (Harley et al., 1990) yet, competence includes skills (productive or receptive) and fluency (North, 2000). Foreign language competency can also be defined as the ability to express ideas and information utilizing the linguistic capabilities (listening, reading, writing, and speaking) and the cultural setting of the language being learned (Lange, 1990)

There are a lot of measurements of language proficiency that are being used currently in language learning settings; however, the most popular ones are the International English Language Testing System (IELTS) and Test of English as a Foreign Language (TOEFL). Also, there are many schools making their own proficiency exams.

2. Literature Review

The ability to understand and think properly with concepts and solve issues is referred to as intelligence (Schmidt & Hunter's, 2000); however, there are many intelligence types that focus on specific contexts such as emotional intelligence (Mayer & Salovey, 1993), practical intelligence (Sternberg et al., 2000) and social intelligence (Thorndike & Stein, 1937) while CQ is mostly centered on a particular domain–intercultural environments. CQ is a type of intelligence that can explain differences in enduring diversity and operating in different cultural environments (Early & Ang, 2003), and it has been a popular topic in business settings and social interactions. Since cultural intelligence has been a new issue, there are no adequate studies focusing on the relationship between language proficiency and CQ. Yet, CQ has been used and shown as one of the factors on language learning in some studies. A notable example of one of these studies is Kahraman's (2016) investigation about the factors affecting cultural intelligence. Some variables such as attitudes towards foreign languages, language learning strategies, and the conception of culture teaching were examined with 340

undergraduate students from different branches of the faculty of economics and administrative sciences. According to the result, middle-level cultural intelligence was found among the participants, and positive correlation between the participants' cultural intelligence level and their English proficiency level even the participants weren't a member of a preparatory class. A similar study was conducted in Iran, focusing on the relationship between CQ and other variables such as education, gender, traveling abroad and, place of living in Iran (Khodadady & Ghahari, 2011). As reported by the study, which was performed with 854 undergraduate and graduate students majoring in five branches, there is a role of CQ in education. The evidence of the effect of CQ on language achievement can be clearly seen in the case of Alahdadi and Ghanizadeh's (2017) research conducted with 180 TEFL and translation students. The interrelationships among variables, for example, cultural intelligence, tolerance of ambiguity, adaptability, learning approach, and language achievement were analyzed, and it was discovered that CQ affects learners' language achievement. Furthermore, there are some studies measuring cultural intelligence and another variable rather than exploring more than one. This is exemplified in work undertaken by Ghonsooly and Shalchy (2013). The prediction of CQ in writing scores of L2 learners was assessed, and a significant relationship between these two variables was discovered. The relationship between cultural intelligence and writing ability was an interesting and rare finding in the education context of language learning. Moreover, language learning strategies have been a well-known subject in the language learning context; it is one of the most important factors in the second language learning process, and there is an important study about the relationship between language learning strategies and CQ as well. However, there was no significant correlation between CQ and language learning strategies (Rachmawaty et al., 2018). The study reported here illustrates that cultural intelligence may not affect the strategies of language learning but may affect language learning per se. Last but not least, motivation has been an essential factor of language learning, and it is primarily predictable in foreign language success (Nikolov, 1999). In the study set in the preparatory class with 96 students carried out by Canbay (2020), the relationship between cultural intelligence and language learning motivation was investigated, and a positive correlation was found.

However, currently, there are no data specifically focusing on the relationship between cultural intelligence and language proficiency with the students in the process of language learning, especially in the Turkish EFL context. Motivated by this lack in the literature, this study aims to find answers for the following research questions:

1. What is the level of cultural intelligence of the participants?

2. What is the relationship between the cultural intelligence of the participants and their language proficiency?

3. Methodology

3.1 Setting and Participants

The study was conducted in the English preparatory class at a state university with 86 students via stratified random sampling. A placement test exam was conducted to determine students' English levels consisting of starter and elementary levels at the beginning of the year. Students take 25 hours course including Main Course and Four Skills Course (e.g., reading, listening, writing, speaking). The age range of the students was between 18-20 (M= 18,73; SD=,72). The majority of the students were male n=83, and the other students were female n=3 because of the university's unique feature. It can be observed in Table 1 that there

were 44 starter students and 42 elementary students in the study. They were asked to provide information on their level, age, gender, and placement test score.

Table 1
Age and Level

Level	Age (M)
Starter (n=44)	*18,82*
Elementary (n=42)	*18,64*

3.2 Data Collection Instrument

As the data collection instrument, the Cultural Intelligence Scale (CIS) developed by Ang et al. (2007) was used. The Turkish version of the cultural intelligence scale was retrieved from Validity and Reliability Study of the Turkish Version of the Cultural Intelligence Scale by İlhan and Çetin (2014). The scale has four sub-dimensions, including cognition, metacognition, motivation and, behavior. Items 1 to 4 are in the metacognition, 5-10 items are in the cognition, 11-15 items are in the motivation, and 16-20 items are in the behavior component.

The CIS consists of 20 items with a 7-point Likert type. In this analysis, Cronbach's Alpha coefficient was found to be .90 by İlhan and Çetin (2014). The scale, which has a strong, positive and, significant correlation, was stated to be valid and reliable. On the scale, 1 refers to strongly disagree, and 7 refers to strongly agree. The scale can be observed in the appendix. The second set of data consists of students' placement test scores as an indicator of students' language proficiency. The placement test was conducted by the state university at the beginning of the term to determine the levels of students. The placement test includes 100 questions containing grammar and vocabulary parts. Each question values 1 point. Hence, students can get 100 points from the test at most. According to the results, students study in the level classes consisting of starter and elementary for a year. The data was analyzed using SPSS. For the first research question, the mean scores of the CIS were calculated, and the correlation between the CIS scores and students' placement scores was tested for the second research question.

4. Results

Students were asked to answer the CIS questionnaire to discover their level of cultural intelligence. The highest point of the questionnaire is 140, and the lowest is 20. Therefore, the points between 20-59 indicate the lowest cultural intelligence, 60-100 indicate the medium level of cultural intelligence, and 101-140 show the highest cultural intelligence points according to the CIS scores. The mean scores of students' CIS points were calculated to yield the level of cultural intelligence of the participants. The mean score of CIS of students was found to be M=99,83, SD=16,14. It can be referred that students have a medium cultural intelligence level. As Table 2 shows, elementary level students have a higher cultural intelligence level than the starter level group. Elementary level students have a high level of CIS (M=102,81, SD=16,62).

Table 2
Distribution of mean scores of students' CIS scores and English Levels

	Level	N SD	M
CIS Total	Starter	44 15,31	96,98
	Elementary	42 16,62	102,81

The distribution of mean scores of all the items can be observed in Table 3 below.

Table 3

Distribution of mean scores of students' CIS scores

	N	M	SD
Item 1	86	5,21	1,149
Item 2	86	5,26	1,285
Item 3	86	5,24	1,246
Item 4	86	5,31	1,331
Item 5	86	4,52	1,509
Item 6	86	3,93	1,478
Item 7	86	5,00	1,363
Item 8	86	4,52	1,524
Item 9	86	4,66	1,360
Item 10	86	4,60	1,374
Item 11	86	5,76	1,414
Item 12	86	5,43	1,351
Item 13	86	5,49	1,253
Item 14	86	4,97	1,765
Item 15	86	5,43	1,435
Item 16	86	5,08	1,220
Item 17	86	4,59	1,544
Item 18	86	4,65	1,517
Item 19	86	4,85	1,203
Item 20	86	5,31	1,161

As it can be observed in Table 4, students gave the higher points to item 11, item 12, item 13, and item 15. The implication from this table might be the confidence of students. Participants are fond of having interaction with people who are from other cultures and countries. They have self-confidence while having a conversation with people from different cultures, and they trust themselves in some situations which might be difficult to encounter in different customs.

Table 4
Most highly-rated items of CIS

	M	SD
Item 11: I enjoy interacting with people from different cultures.	5,76	1,41
Item 12: When I meet people from a culture that is foreign to me, I feel confident to socialize with them.	5,43	1,35
Item 13: I feel confident in coping with the stress I will experience in the process of adapting to a new culture.	5,49	1,25
Item 15: I am confident in getting used to shopping conditions in a different culture.	5,43	1,43

Table 5 represents the least highly-rated items of CIS and it can be observed below.

Table 5
Least highly-rated items of CIS

	M	SD
Item 5: I know the legal and economic systems of other cultures.	4,42	1,50

Item 6: I know the rules of other languages (e.g., vocabulary, grammar).	3,93	1,47
Item 8: I know the marriage structures of other cultures.	4,52	1,52

When the least highly-rated items of CIS are examined, it can be referred participants don't have the knowledge of other cultures' legal and economic systems and their structures of marriage. Interestingly, students gave lower points to item 8, which is related to the rules of other languages such as vocabulary and grammar despite their approximately 12 years of English education.

Table 6

Distribution of CIS subdimensions

	N	Mean	Std. Deviation
Metacognition	86	21,02	4,167
Cognition	86	27,24	5,957
Motivation	86	27,07	5,696
Behavior	86	24,49	4,737

As the given information about the subdimensions of CIS at the beginning of the study shows, metacognition reflects the mental ability to acquire and interpret cultural knowledge; cognition indicates a measure of general cultural knowledge and knowledge systems; motivation reflects the individual ability to have excitement toward learning about, and operating in intercultural circumstances and behavior item of CIS reflects individuals' ability to demonstrate acceptable verbal and nonverbal actions. The cognition items of CIS have the highest mean value (M=27,24; SD=5,95) while metacognition sub-dimension has the lowest mean value (M=21,02; SD=4,16) in this study. Furthermore, cognitive CQ reveals comprehending of norms, customs, economic, legal, and social systems, as well as the knowledge of basic patterns of values in other cultures (Triandis, 1994; Hofstede, 2001; Ang & Dyne, 2008).

Table 7
Students' CIS scores and students' placement test scores

	N SD	M
Placement Test Scores	86 20,141	49,53
Total CIS Scores	86 16,142	99,83

Table 8

Correlation of CIS scores and Language proficiency

		Placement Test Scores	CIS Total Scores
Placement Test Scores	Pearson Correlation	1	,234[*]
	Sig. (2-tailed)		,030
	N	86	86
CIS Total Scores	Pearson Correlation	,234[*]	1
	Sig. (2-tailed)	,030	
	N	86	86
*. Correlation is significant at the 0.05 level (2-tailed).			

As for the second research question of the current study, as Table 8 shows, there is a statistically significant positive correlation at a weak level (r=,23*; p=,03) between the students' CIS scores (M=99,83; SD=16,14) and their language proficiency levels (M=49,53; SD=20,14). Therefore, there is a significant relationship between participants' language proficiency levels and their cultural intelligence levels.

5. Discussion

This study aimed to determine the participants' cultural intelligence level and the relationship between their cultural intelligence level and language proficiency. The first research question dealt with the students' cultural intelligence level, and results indicated that they have medium level CQ (M=99,83; SD= 16,14). These results are in accord with the recent study indicating that the participants had medium-level CQ (Kahraman, 2016). Also, results seem to be consistent with the other research carried out by Rachmawaty et al. (2018) which found the medium level of CQ as well. A possible explanation for these results may be the lack of adequate exposure to the language. Crowne (2008) concluded that spending time abroad for education, work or any other reason makes a positive contribution to the cultural intelligence of individuals. However, these students may not have any experiences of spending time abroad which can affect their CQ level. On the other hand, some students have a high medium level of CQ. It may be that these participants benefitted from TV, the internet, social media websites, music, film, etc. thanks to today's current communication tools all around the world in the target language. Also, elementary and starter group students don't have a great difference in their CQ levels. Furthermore, as Table 6 shows, the highest subdimensions are cognition (M=27,24; SD=5,95) and motivation (M=27,07; SD=5,69) indicating the importance of getting to know and interact with people from different cultures. These are in agreement with Khodadady and Ghahari's (2011) findings which showed the motivation and cognition subdimensions of CIS have the highest scores in the study.

With respect to the second research question, by using Pearson Correlation Coefficient analysis, the current study reveals that there is a statistically significant positive correlation between the participants' CQ levels and language proficiency levels (r=,23; p=,03). This implies that as foreign language success levels increase, the cultural intelligence levels of the students increase as well. This study supports evidence from previous observations (e.g.,

Kahraman, 2016; Khodadady & Ghahari, 2011; Alahdadi and Ghanizadeh, 2017). In contrast to these findings, however, no evidence of correlation was detected in Rachmawaty et al.'s (2018) research among CQ, language learning strategies and English language proficiency. It is difficult to explain this result, but it might be related to students' personal features since in the study metacognition subdimension is the highest in CIS, which also differs from the current study.

6. Conclusion

The current study was designed to examine the cultural intelligence levels of the participants and whether there is a relationship between language proficiency and cultural intelligence. It was seen that the participants have a medium level of cultural intelligence and there is a significant positive correlation between the students' language proficiency and cultural intelligence levels. This finding has important implications for language learning. It can be suggested that CQ levels might be the indicator and predictor of language learning and its process and CQ can be enhanced like other intelligence types. Besides, teachers can use cultural activities during their classes and give more cultural information about the customs of the target language since the culture and the language are impossible to separate. If it is possible, people who desire to learn a foreign language can go abroad to study or work, or they may have exposure to the language via TV, films, music, etc.

7. Limitations and Suggestions

This study, however, is not without limitations. The first limitation is concerned with the data collection instrument. The validity and the reliability of the placement test used as the second data collection instrument could not be statistically proved. In future investigations, it might be possible to use different, more valid and reliable exams' results such as IELTS or TOEFL to observe learners' language proficiency. Another limitation is that the placement test was conducted at the very beginning of students' language learning process. It is believed that exit exams or final exams at the end of the year might be more effective and predictive about the appropriate results of achievement in language learning. However, it was an obligation to use the existing exam because of the time restraints of this study. Another weakness is that the study includes two variables. Some other effects such as individual differences and socio-economic factors can be combined in future studies and their relations could be analyzed as well. Future studies on the current topic are therefore recommended since there is no current investigation on the relationship of CQ and language proficiency, especially in the Turkish EFL context and preparatory classes in which the real language learning process can be observed and examined.

Appendix

Turkish Version of the Cultural Intelligence Scale

Madde No	Maddeler	Kesinlikle uygunsuz	Uygunsuz	Biraz Uygunsuz	Tarafsızım	Biraz Uygun	Uygun	Tamamen Uygun
1	Farklı kültürel geçmişe sahip insanlarla etkileşim kurarken kullandığım kültürel bilgilerin	1	2	3	4	5	6	7

	farkındayım.							
2	Bana yabancı bir kültürden gelen insanlarla etkileşim kurarken kültürel bilgimi ayarlarım.	1	2	3	4	5	6	7
3	Kültürlerarası etkileşimlerde kullandığım kültürel bilgimin farkındayım.	1	2	3	4	5	6	7
4	Farklı kültürlere sahip insanlarla etkileşim halindeyken, kültürel bilgilerimin doğruluğunu control ederim.	1	2	3	4	5	6	7
5	Diğer kültürlerin yasal ve ekonomik sistemlerini bilirim.	1	2	3	4	5	6	7
6	Diğer dillerin kurallarını (örneğin; kelime bilgisi, dilbigisi) bilirim.	1	2	3	4	5	6	7
7	Diğer kültürlerin dini inançlarını ve kültürel değerlerini bilirim.	1	2	3	4	5	6	7
8	Diğer kültürlerin evlilik yapılarını bilirim.	1	2	3	4	5	6	7
9	Diğer kültürlerin sanat ve zanaatlarını bilirim.	1	2	3	4	5	6	7
10	Diğer kültürlerin sözel olmayan davranışları (jest ve mimik) ifade etme şekillerini bilirim.	1	2	3	4	5	6	7
11	Farklı kültürden insanlarla etkileşim kurmaktan zevk alırım.	1	2	3	4	5	6	7
12	Bana yabancı bir kültürün halkı ile karşılaştığımda onlarla kaynaşabilme konusunda kendime güvenirim.	1	2	3	4	5	6	7
13	Yeni bir kültüre uyum sağlama sürecinde yaşayacağım stres ile başa çıkabilme konusunda kendime güvenirim.	1	2	3	4	5	6	7
14	Yabancısı olduğum bir kültürde yaşamaktan hoşlanırım.	1	2	3	4	5	6	7
15	Farklı bir kültürdeki alışveriş koşullarına alışabilme konusunda kendime güvenirim.	1	2	3	4	5	6	7
16	Konuşma davranışlarımı (örneğin; ses tonu, aksan vb.) kültürlerarası iletişimin gereklerine göre ayarlarım.	1	2	3	4	5	6	7
17	Farklı kültürlerarası durumlara uyum sağlamak için duruma göre duraksar ya da sessiz kalırım.	1	2	3	4	5	6	7
18	Konuşma hızımı kültürlerarası etkileşimin gereklerine göre	1	2	3	4	5	6	7

	değiştirebilirim.							
19	Sözel olmayan davranışlarımı kültürlerarası etkileşimin gereklerine göre değiştirebilirim.2	1	2	3	4	5	6	7
20	Yüz ifadelerimi kültürlerarası etkileşimin gereklerine göre değiştirebilirim.	1	2	3	4	5	6	7

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