A Survey on the Relationship between Willingness to Communicate and Learner Autonomy of Turkish EFL Students

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Abstract
This study was designed with an aim to investigate the relationship between willingness to communicate (WTC) and learner autonomy (LA) in EFL settings at a Turkish university context. The primary purpose of the study was to reveal the possible statistically significant relationship between L2 WTC and learner autonomy of EFL learners in the classroom setting. The study was based on a mixed-methods research design. 211 students majoring at the Department of English Language and Literature of a state university in Turkey participated in the study. The instruments which were used to collect data were a willingness to communicate scale, a learner autonomy scale, and classroom observation. The results revealed that there was a moderate but significant relationship between EFL learners’ WTC and LA. The autonomy levels of the EFL learners had a predictive role in their L2 WTC. The difference between the self-reported L2 WTC and the behavioural L2 WTC of the Turkish EFL students was higher when the autonomy level of the students was lower. Based on the results, implications for enhancing L2 WTC of EFL learners are discussed.

Keywords: Willingness to Communicate (WTC), Willingness to Communicate in Second Language (L2 WTC), Learner Autonomy (LA), Turkish EFL Context

Introduction
The significant role of communication in foreign or second language education has caused an indispensable shift in the way of research conducted in the last five decades. The theoretical and pedagogical implications of the research have identified a considerable number of factors which have influence on foreign or second language learning. Willingness to communicate (WTC) has emerged as a recent construct which is considered to be a relatively new individual difference variable. Since its introduction, the construct of WTC, defined as ‘a readiness to enter into discourse at a particular time with a specific person or persons, using a L2’ (MacIntyre et al., 1998, p. 547) has been investigated thoroughly in regard to its relationship with other variables in various contexts through various research methods.
WTC in First Language

The construct of WTC was originally conceptualized by McCroskey and Baer (1985) with reference to communication in first language (L1). The early studies of L1 WTC treated WTC as a personality trait, trait-like predisposition that persisted among various types of contexts and receivers. In other words, an individual displays similar WTC tendencies despite situational variables as this tendency is controlled by the personality of the individual.

WTC in Foreign and Second Language

In the early 1990s, the research on L1 WTC directed the attention of the researchers towards foreign and second language learners’ WTC. The spectrum of the studies of the L2 WTC significantly differs from the L1 WTC as the speakers of an additional language have different communication behaviours than the native speakers. MacIntyre et al. (1998) point out that L2 WTC cannot be regarded as the simple manifestation of L1 WTC (p.546).

As the first study on L2 WTC, MacIntyre and Charos (1996) combined MacIntyre’s model (1994) and Gardner’s socio-educational model of language learning (1985) and they investigated the underlying factors of L2 WTC . This study hypothesised that L2 WTC and L2 Motivation affect the frequency of communication in a target language and there is a direct effect of L2 anxiety and perceived competence on L2 WTC. It was also maintained that there exist other linguistic, social, cognitive, and emotional variables affecting L2 WTC. Upon their research on L2 WTC, MacIntyre et al. (1998) did not limit WTC to a trait-like variable and they treated WTC as a situational variable. They suggested that WTC has both enduring and transient influences. As a result of this suggestion, the researchers focused on examining the enduring and situational variables to comprehend the process of L2 communication. MacIntyre and his colleagues (1998) proposed a heuristic model of WTC, also called pyramid model, which includes linguistic, communicative, and social psychological variables in six categories defined as “layers”.

A bulk of research embodying both quantitative, qualitative, and mixed-methods research designs was employed to obtain insights into the complex relationships between the linguistic, psychological, and contextual variables affecting L2 learners’ WTC over the decades. Based on the empirical investigations conducted in the last two decades, it is possible to state that the construct of WTC has been studied in various contexts from various perspectives. The findings of these studies have provided comprehensive insights into the phenomenon under investigation.

WTC Studies in Turkish EFL Context

The WTC studies carried out in the Turkish EFL context have explored the certain aspects of the construct. Most of the studies tried the reveal the levels of L2 WTC and the variables that affect the L2 WTC of Turkish EFL learners (Akdemir, 2016; Altuner, 2018; Asmalı, 2016; Atay & Kurt, 2009; Bektaş-Çetinkaya, 2005; Bergil, 2016; Bursali & Öz, 2017; Hişmanoğlu & Özüdoğru, 2017; Öz, Demirezen & Pourfeiz, 2015; Şener, 2014). Some other studies compared two different EFL contexts with regard to L2 WTC to uncover the similarities and differences between the EFL contexts (Asmalı, Bilki & Duban, 2015; Mulalic & Oblacic, 2016). All the experimental studies into L2 WTC in the Turkish EFL context investigated the EFL students at the university level but for one study whose population included young learners (Buckingham & Alpaslan, 2017). In addition to these studies, a number of studies investigating the underlying factors affecting the L2 WTC of the Turkish EFL learners (Aydin, 2017), sub-constructs of WTC such as willingness to listen (Akdemir, 2016; Akdemir, 2019) and interrelations of self-guided motivational units and their predictive effects on WTC (Kanat-Mutluoglu, 2016) were reviewed.

Upon reviewing the studies on WTC in Turkish EFL context, it can be seen that the majority of the studies share similar aspects in terms of their methodologies, the WTC instruments they employed, and data collection procedures and analysis. The overuse of the WTC scale (McCroskey, 1992) is one issue that draws attention in that way. When the items of this mostly preferred WTC scale reviewed, it can be asserted that the items that scale includes do not properly measure the L2 WTC of EFL learners.
as it as originally prepared in order for measuring the WTC of L1 learners. By the same token, it can be observed that the majority of the studies on WTC in Turkish EFL context are methodologically based on quantitative research designs, which may lead to a lack of insight into gaining a clear understanding of the L2 WTC of Turkish EFL learners. In this sense, the need for extending the scope of the further studies regarding these aspects becomes evident.

WTC and LA

In addition to WTC, a powerful predictor of success in foreign language learning (Yashima, 2002), learner autonomy (LA), which has been a major area of interest in foreign language teaching for almost four decades, is suggested to contribute substantially to the communication efficiency in the target language (Little, 1991). Little maintains that independence, self-reliance, and self-confidence to fulfill the variety of social, psychological, and discourse roles that L2 learners should have to communicate efficiently in the target language depend on the significant degree of learner autonomy they have.

WTC in L2 has been investigated in regard to its relationship with several other variables of language learning process or learners; however, WTC of the autonomous language learners has not been studied extensively. Dam (1995) considers foreign language learning as an interactive and social process and emphasizes the value of LA and its relationship with WTC in foreign language classroom setting with the following definition of LA: ‘capacity and willingness to act independently and in cooperation with others as a sociable, responsible person’ (p.22). Also, current trends of the research on language learners are much more connected with communicative competence/performance and autonomy.

Studies conducted by Khaki (2013) and Naderifar and Esfandiar (2016) investigated the direct relationship between WTC and LA and revealed a statistically significant relationship between these two construct in Iranian EFL context. On the other hand, there are some relevant studies which investigate the indirect relationship of WTC and LA. Studies carried out by Nosratinia and Deris (2015) and Yaraghi and Shafiee (2018). Even if their studies did not analyse the direct relationship between the WTC and LA, they highlighted the critical roles of these two constructs on predicting and influencing the communication strategy uses of EFL learners. However, no studies explored their relationship in terms of the underlying reasons of this correlation. In addition, all the studies employed quantitative research design which led to the fact that the results of them lacked an in-depth understanding of the research problems.

In Turkish EFL context, the WTC of Turkish EFL learners has been studied in various aspects, but there is a gap to be fulfilled in terms of the relationship between the L2 WTC and LA of the Turkish EFL learners in the classroom contexts, and the underlying factors of their L2 WTC according to their different LA levels. In addition, in the relevant research, Peng (2007) suggests the construct of WTC should be investigated comprehensively in different EFL contexts since WTC shows obvious differences depending on the different cultural contexts. In this regard, the primary aim of the present study is to reveal the possible statistically significant relationship between the L2 WTC and LA of EFL learners in the classroom setting in a Turkish state university in Turkish EFL context. In this regard, the research questions of the study are as follows:

1. Is there a significant relationship between Turkish EFL learners’ WTC and LA levels?
2. If there is a relationship between Turkish EFL learners’ WTC and LA levels, what is the direction of this relationship?
3. Is there a difference between Turkish EFL learners’ self-report and behavioural WTC levels according to their LA levels?

Methodology

Research Design

This study employed a mixed-methods design in which explanatory design as the data collection procedure was used by implementing the quantitative and the qualitative phases of the study sequentially. The two-phase data collection provided the researcher with extending and elaborating the findings of the data obtained both quantitatively and qualitatively.
Setting and Participants
The research was conducted at the English Language and Literature Department of a Turkish state university, Atatürk University, in the fall and spring terms of the 2018-2019 academic years. 211 students majoring at the Department of English Language and Literature of a state university participated in the quantitative phase of this study. All the participants were native Turkish speakers who were learning English as a foreign language (EFL). The students who participated in this research were studying at the preparatory classes. 71.6 % of the students participating in the study are female and 28.4 % are male. 54 % of the students are under 20, while 46% of them are over 20.

Instruments
To collect the data, two questionnaires (WTC Scale developed by Weaver, 2005 and LA scale designed by Zhang and Li, 2004) and classroom observation (classroom observation scheme designed by Cao, 2009) were employed. Both questionnaires were translated into Turkish, the native language of all the participants, to increase the return rate. The Back-translation method was used to ensure the accuracy of the translated items.

Data Collection
After the piloting phase, quantitative data of the research was conducted with 211 students. The data obtained from the questionnaires were coded and then analysed by the Statistical Package for Social Sciences (SPSS 23). The analysis of the quantitative data revealed the L2 WTC and LA levels of each student, and then most autonomous five students and the least autonomous five students out of 211 participants were determined to be observed to gather observational data in addition to the self-report data in the second phase of the data collection procedure.

Data Analysis
Cronbach’s Alpha reliability coefficient of the measurements obtained from WTC Questionnaire was 0.88 while Cronbach’s Alpha reliability coefficient of the measurements obtained from LA Questionnaire was 0.72 (Cronbach, 1951). As for the analysis of the obtained data, the quantitative data were analysed through descriptive and inferential analysis procedures. Measures of central tendency and coefficients of skewness and kurtosis were calculated and skewness and Kolmogorov-Smirnov test was conducted to see whether each dependent variable was normally distributed. The skewness coefficient of the distribution was found to be -.243 and the kurtosis coefficient -. 054. The data were normally distributed (p>.05). Also the skewness coefficient of the distribution was calculated -.052 and the kurtosis coefficient -.042. To identify the potential differences between or among the mean scores in the data set, Independent-Samples t-test was adopted for the variables such as age, gender, and LA. In addition, Levene’s Test was adopted as a precondition for Independent-Samples T-test and the homogeneity of the variances was measured. To examine whether there is a significant relationship between WTC and LA, Pearson’s product-moment correlation analysis was conducted. Also, simple linear regression analysis was conducted to investigate whether the participants’ WTC predicts their LA. For the analysis of classroom observation, the numerical codes taken from the observation of the most autonomous five students and the least autonomous five students for three weeks were analysed to calculate each student’s WTC behaviour.

Results
Quantitative Results
The mean, standard deviation and percentage values related to participants’ WTC are shown in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>$\bar{x}$</th>
<th>$\text{Sd}$</th>
<th>$D_{na}$ %</th>
<th>$P_{na}$ %</th>
<th>$P_{a}$ %</th>
<th>$D_{a}$ %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Greet someone in English.</td>
<td>2.77</td>
<td>.87</td>
<td>9</td>
<td>24.6</td>
<td>46</td>
<td>20.4</td>
</tr>
<tr>
<td>2. Say thank you in English when someone lends you a pen.</td>
<td>3.35</td>
<td>.79</td>
<td>3.3</td>
<td>9.5</td>
<td>36.5</td>
<td>50.7</td>
</tr>
<tr>
<td>3. Give directions to your favourite restaurant in English.</td>
<td>2.12</td>
<td>.94</td>
<td>29.9</td>
<td>37</td>
<td>24.6</td>
<td>8.5</td>
</tr>
</tbody>
</table>
4. Tell someone in English about the story of a TV show you saw. 2.36 .98 24.6 27 36.5 11.8
5. Read out a two-way dialogue in English from a textbook. 3.39 .79 3.3 9 33.2 54.5
6. Translate a spoken utterance from Turkish into English. 2.79 1.00 14.7 18.5 40.3 26.5
7. Interview someone in English asking your own original questions. 2.70 .92 13.3 21.3 47.4 18
8. Interview someone in English asking questions from the textbook. 3.29 .81 4.3 9.5 38.9 47.4
9. Do a role-play in English at your desk (e.g. ordering food in a restaurant). 2.71 1.02 15.6 23.2 35.5 25.6
10. Do a role-play standing in front of the class in English (e.g. ordering food in a restaurant). 1.93 1.00 44.5 27.5 18.5 9.5
11. Give a short speech in English about your hometown with notes. 3.17 .85 6.2 10.4 43.6 39.8
12. Give a short self-introduction without notes in English. 3.24 .81 3.8 12.3 40.3 43.6
13. Ask someone in English to repeat what they have just said in English because you did not understand. 2.83 .96 10 25.6 35.5 28.9
14. Ask the meaning of a word you do not know in English. 2.75 1.03 12.8 29.9 27 30.3
15. Ask someone how to pronounce a word in English. 2.93 1.00 10.9 20.4 33.2 35.5
16. Ask someone in English how to say a phrase you know how to say in Turkish but not in English. 2.55 1.01 16.1 34.6 27 22.3
Total 2.81 .56

Table 1 shows that upon examining the mean scores of all items, the students’ WTC was found as high (\(\bar{X} = 2.81\)). Participants strongly agreed on the items “Read out a two-way dialogue in English from a textbook” (\(\bar{X} = 3.39\)), “Say thank you in English when someone lends you a pen” (\(\bar{X} = 3.35\)) and “Interview someone in English asking questions from the textbook” (\(\bar{X} = 3.29\)). Also, they responded “Give a short self-introduction without notes in English” (\(\bar{X} = 3.24\)), “Give a short speech in English about your hometown with notes” (\(\bar{X} = 3.17\)), “Ask someone how to pronounce a word in English” (\(\bar{X} = 2.93\)), “Ask someone in English to repeat what they have just said in English because you did not understand” (\(\bar{X} = 2.83\)), “Translate a spoken utterance from Turkish into English” (\(\bar{X} = 2.79\)), “Greet someone in English” (\(\bar{X} = 2.77\)), “Ask the meaning of a word you do not know in English” (\(\bar{X} = 2.75\)), “Do a role-play in English at your desk (e.g. ordering food in a restaurant)” (\(\bar{X} = 2.71\)), “Interview someone in English asking your own original questions” (\(\bar{X} = 2.70\)) and “Ask someone in English how to say a phrase you know how to say in Turkish but not in English” (\(\bar{X} = 2.55\)) as “agree”. However, they disagreed on the items “Tell someone in English about the story of a TV show you saw” (\(\bar{X} = 2.36\)), “Give directions to your favourite restaurant in English” (\(\bar{X} = 2.12\)) and “Do a role-play standing in front of the class in English (e.g. ordering food in a restaurant)” (\(\bar{X} = 1.93\)).

The mean, standard deviation and percentage values related to students’ LA are displayed in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>(\bar{X})</th>
<th>Sd</th>
<th>Never %</th>
<th>Rarely %</th>
<th>Sometimes %</th>
<th>Often %</th>
<th>Always %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think I have the ability to learn English well.</td>
<td>4.13</td>
<td>.77</td>
<td>0</td>
<td>1.4</td>
<td>19.4</td>
<td>43.6</td>
<td>35.5</td>
</tr>
<tr>
<td>2. I make good use of my free time in English study.</td>
<td>3.40</td>
<td>1.06</td>
<td>3.8</td>
<td>14.2</td>
<td>37.9</td>
<td>26.1</td>
<td>18</td>
</tr>
</tbody>
</table>
As can be seen in Table 2, students’ LA is at the medium level (\(\bar{x} = 3.26\)). Respondents strongly agreed with Item 10 (\(\bar{x} = 4.48\)) while they responded the items “I think I have the ability to learn English well” (\(\bar{x} = 4.13\)), “I choose books, exercises which suit me, neither too difficult nor too easy” (\(\bar{x} = 3.99\)), “I can finish my task in time” (\(\bar{x} = 3.66\)) and “I finish my task in time” (\(\bar{x} = 3.66\)) as “agree”. In addition, participants slightly agreed on the items “I make good use of my free time in English study” (\(\bar{x} = 3.40\)) and “I preview before the class” (\(\bar{x} = 2.62\)). According to the table, participants reported that they disagreed on the items “I make self-exam with the exam papers chosen by myself” (\(\bar{x} = 2.59\)), “I attend out-class activities to practice and learn the language” (\(\bar{x} = 2.50\)), “During the class, I try to catch chances to take part in activities such as pair/group discussion, role-play, etc.” (\(\bar{x} = 2.37\)) and “I keep a record of my study, such as keeping a diary, writing review etc.” (\(\bar{x} = 2.10\)).

To determine whether there was a significant difference between the students with high and low LA in terms of WTC, Independent Samples T test was administered and the findings were shown in Table 3.

As can be seen in Table 3, students’ WTC significantly differs in terms of LA variable (t (122) = -4.715; p<0.05). WTC of the students with high LA (\(\bar{x} = 3.05\)) was significantly higher than the students with a low level of LA (\(\bar{x} = 2.45\)).

Pearson correlation analysis was used to check if there was a significant difference between WTC and LA of the students and the findings were demonstrated in Table 4.

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| 3. I preview before the class. | 2.62 | 1.01 | 13.3 | 33.2 | 36 | 13.3 | 4.3 |
| 4. I find. I can finish my task in time. | 3.97 | 1.05 | 2.4 | 8.1 | 18.5 | 32.7 | 38.4 |
| 5. I keep a record of my study, such as keeping a diary, writing review etc. | 2.10 | 1.25 | 46.9 | 16.6 | 20.9 | 10.4 | 5.2 |
| 6. I make self-exam with the exam papers chosen by myself. | 2.59 | 1.24 | 25.1 | 21.8 | 31.3 | 12.8 | 9 |
| 7. I reward myself such as going shopping, playing etc. when I make progress. | 3.66 | 1.32 | 8.5 | 10.9 | 25.1 | 17.1 | 38.4 |
| 8. I attend out-class activities to practice and learn the language. | 2.50 | 1.36 | 29.9 | 26.5 | 21.3 | 8.5 | 13.7 |
| 9. During the class, I try to catch chances to take part in activities such as pair/group discussion, role-play, etc. | 2.37 | 1.23 | 31.3 | 25.6 | 24.6 | 11.4 | 7.1 |
| 10. I know my strengths and weaknesses in my English study. | 4.48 | .73 | 0.5 | 1.4 | 7.1 | 31.3 | 59.7 |
| 11. I choose books, exercises which suit me, neither too difficult nor too easy. | 3.99 | .96 | 2.4 | 3.3 | 22.3 | 37.4 | 34.6 |
| Total | 3.26 | .57 |

Table 3 T-Test Results for the Difference among Students’ L2 WTC According to the Variable of LA

<table>
<thead>
<tr>
<th>Learner autonomy</th>
<th>N</th>
<th>(\bar{x})</th>
<th>Sd</th>
<th>Df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (1.00-2.40)</td>
<td>17</td>
<td>2.45</td>
<td>.59</td>
<td>122</td>
<td>-4.715</td>
<td>.000</td>
</tr>
<tr>
<td>High (3.21-5.00)</td>
<td>107</td>
<td>3.05</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 The Relationship between L2 WTC and LA

<table>
<thead>
<tr>
<th>WTC</th>
<th>LA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.511**</td>
</tr>
</tbody>
</table>

**p<0.01
According to the table above, Pearson correlation test showed a significant relationship between WTC and LA positively (r=.511, p<.01), which indicates that as the students’ WTC increases, their LA also increases.

Simple linear regression analysis was conducted to investigate whether the participants’ WTC predicts their LA and Table 5 displays the results of this analysis.

**Table 5 The Predictive Power of L2 WTC in LA**

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Standard Error</th>
<th>Beta</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.796</td>
<td>.173</td>
<td>.511</td>
<td>10.383</td>
<td>.000</td>
</tr>
<tr>
<td>Willingness to Communicate</td>
<td>.520</td>
<td>.060</td>
<td></td>
<td>8.603</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 5 shows a moderate but significant relationship between students’ WTC and LA (R=.51, R²=.26, p<.01). This means that LA explains 26 percent of variance of WTC. When examined standardized beta coefficient and t values, it appears that LA significantly predicts WTC. Also, significance test of the main predictive variable coefficient (B = .520) of the regression equation shows that LA is a significant predictive (p<.01).

According to the result of regression analysis, regression equation which predicts WTC can be presented as following:

L2 Willingness to Communicate = (.520 X Learner Autonomy) + 1.796

Table 6 and 7 display the students with the highest and lowest WTC and LA to reveal whether there is a statistically significant relationship between WTC and LA.

**Table 6 Participants with Highest LA Level**

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>LA Level (5.00)</th>
<th>L2 WTC Level (4.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smiley</td>
<td>4.64</td>
<td>3.31</td>
</tr>
<tr>
<td>Green</td>
<td>4.55</td>
<td>3.88</td>
</tr>
<tr>
<td>Yoonspire</td>
<td>4.55</td>
<td>3.38</td>
</tr>
<tr>
<td>Curly</td>
<td>4.36</td>
<td>3.13</td>
</tr>
<tr>
<td>Photographer</td>
<td>4.36</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Table 6 shows the most autonomous five students out of 211 participants who took part in the quantitative phase of the study. The table also indicates the WTC levels of the students, which display the results of WTC Questionnaire (Weaver, 2005).

**Table 7 Participants with Lowest LA Level**

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>LA Level (5.00)</th>
<th>L2 WTC Level (4.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tantuni</td>
<td>1.64</td>
<td>2.38</td>
</tr>
<tr>
<td>Ice-cream</td>
<td>1.82</td>
<td>1.19</td>
</tr>
<tr>
<td>Rotten Machine</td>
<td>2.00</td>
<td>2.50</td>
</tr>
<tr>
<td>Jenna</td>
<td>2.09</td>
<td>3.00</td>
</tr>
<tr>
<td>Daisy</td>
<td>2.09</td>
<td>1.94</td>
</tr>
</tbody>
</table>

Table 7 shows the least autonomous five students and their WTC levels according to the results of the analysis of the LA scale (Zhang & Li, 2004) implemented in the quantitative part of the study.

**Table 8 The Differences Between Self-Reported L2 WTC and Behavioural L2 WTC**

<table>
<thead>
<tr>
<th>The Pseudonym of the Participants</th>
<th>Self-Reported L2 WTC</th>
<th>Behavioural L2 WTC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score Level</td>
<td>Score Level</td>
</tr>
<tr>
<td>High LA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smiley</td>
<td>82 High</td>
<td>75 High</td>
</tr>
<tr>
<td>Green</td>
<td>97 High</td>
<td>95 High</td>
</tr>
<tr>
<td>Yoonspire</td>
<td>84 High</td>
<td>72 High</td>
</tr>
<tr>
<td>Curly</td>
<td>78 High</td>
<td>75 High</td>
</tr>
<tr>
<td>Photographer</td>
<td>93 High</td>
<td>85 High</td>
</tr>
</tbody>
</table>
The Table 8 shows the self-reported WTC scores and levels and behavioural WTC scores and levels of the most and least autonomous students. The WTC levels of the students were identified as high, middle, and low according to the criteria regarding the analysis of the frequency distributions suggested by Cao and Philp (2006). According to this analysis, the students’ scores below 35 are defined as low WTC, those between 35 and 70 are defined as middle WTC, and those over 71 are defined as high WTC.

To compare the self-reported WTC and the actual classroom WTC behaviours of both most autonomous and least autonomous students, Pearson Correlation Test was administered, the results of which are shown in Table 9 and 10.

**Table 9 The Difference between the Self-Reported and Behavioural L2 WTC of the Most Autonomous Students**

<table>
<thead>
<tr>
<th>Students (Pseudonym)</th>
<th>Smiley</th>
<th>Green</th>
<th>Yoonspire</th>
<th>Curly</th>
<th>Photographer</th>
<th>Mean</th>
<th>SD</th>
<th>Variance</th>
<th>Correlation (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Reported L2 WTC</td>
<td>82</td>
<td>97</td>
<td>84</td>
<td>78</td>
<td>93</td>
<td>86.80</td>
<td>7.92</td>
<td>62.70</td>
<td>0.91</td>
</tr>
<tr>
<td>Behavioural L2 WTC</td>
<td>75</td>
<td>95</td>
<td>72</td>
<td>75</td>
<td>85</td>
<td>80.40</td>
<td>9.53</td>
<td>90.80</td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 9, the mean (86.80) of the self-reported WTC of the most autonomous students is higher than the mean (80.40) of the behavioural WTC of the same students. The bivariate correlation of these two variables was found to be $r = 0.91$.

This finding shows that there is a quite significant and positive correlation between the self-reported WTC and behavioural WTC of the most autonomous students participated in this study.

**Table 10 The Difference between the Self-Reported and Behavioural L2 WTC of the Least Autonomous Students**

<table>
<thead>
<tr>
<th>Students (Pseudonym)</th>
<th>Tantuni</th>
<th>Ice-cream</th>
<th>Rotten Machine</th>
<th>Jenna</th>
<th>Daisy</th>
<th>Mean</th>
<th>SD</th>
<th>Variance</th>
<th>Correlation (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Reported L2 WTC</td>
<td>59</td>
<td>29</td>
<td>62</td>
<td>75</td>
<td>48</td>
<td>54.60</td>
<td>17.24</td>
<td>297.30</td>
<td>0.91</td>
</tr>
<tr>
<td>Behavioural L2 WTC</td>
<td>23</td>
<td>25</td>
<td>21</td>
<td>33</td>
<td>18</td>
<td>24.00</td>
<td>5.66</td>
<td>32.00</td>
<td></td>
</tr>
</tbody>
</table>

Table 10 shows that the mean (54.60) of the self-reported WTC of the least autonomous students is higher than the mean (24.00) of the behavioural WTC of the same students. The bivariate correlation of these two variables was found to be $r = 0.44$, which means that there is a moderate and positive correlation between the self-reported WTC and behavioural WTC of the least autonomous students taking part in this study.

It is obvious that the correlation between these variables for each group shows difference, that is, the correlation is higher for the most autonomous students than the least autonomous students. It is concluded that the difference between the self-reported L2 WTC and behavioural L2 WTC of the most autonomous students is lower than the difference between the self-reported L2 WTC and behavioural L2 WTC of the least autonomous students. This indicates that level of autonomy is predictive for determining the actual behavioural L2
WTC of the students in the classroom setting. The difference between the self-reported L2 WTC and behavioural L2 WTC of the Turkish EFL students is higher when the autonomy level of the students is lower.

Discussion

Research Question 1: Is there a significant relationship between Turkish EFL learners’ WTC and LA levels?

The first question of the research aimed to reveal whether there is a statistically significant relationship between WTC and LA of the Turkish EFL learners in Turkish EFL classroom context. Based on the results of the quantitative data, there was a significant relationship between WTC and LA positively (r=.511, p<.01), which indicated that as the students’ WTC increases, their LA will also increase.

Similar to the findings of this study, Khaki (2013) found that there was a significant and strong relationship between LA and trait-like WTC in Iranian EFL learners (r=.55, P=.000<.05). Another study conducted by Naderifar and Esfandiari (2016) also found that there was a positive statistically significant relationship between WTC and LA (r = 0.547, n = 197, p = .000, r2 =0.299). The research carried out by Nosratinia and Deris (2015) investigated the association between the WTC and self-regulation among EFL learners and found a significant direct relationship between these two constructs (p = .56, n = 520, p<.05). The construct of self-regulation which is defined by Zimmerman (2000, p.16) as “self-generated thought, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals” can be considered to have close relations with LA as both are believed to enable learners to direct their own learning process. In this sense, the results of the study of Nosratinia and Deris (2015) share the same points with the findings of this study.

Yaraghi and Shafiee (2018) aimed to reveal the possible relationships among WTC, LA, and communication strategy use of EFL learners, and they found a weak, positive and statistically significant relationship between LA and communication strategy use as well as a moderate, positive, and statistically significant relationship between WTC and communication strategy use. Even if their study did not analyse the direct relationship between the WTC and LA, it highlighted the critical roles of WTC and LA on predicting and influencing the communication strategy uses of EFL learners. In the current study, the researcher concluded that the EFL learners with higher autonomy levels have higher level of WTC in Turkish EFL classroom settings. In this sense, the study of Yaraghi and Shafiee displays the similar emphasis on the effects of LA and WTC on promoting the EFL learners’ communication skills in the target language.

Research Question 2: If there is a Relationship between Turkish EFL Learners’ WTC and LA Levels, What is the Direction of this Relationship?

The second research question aims to reveal the direction of these two constructs according to the result of the first question which indicates that there is a statistically significant relationship between them. Based on the quantitative analysis, a moderate but significant relationship between students’ WTC and LA was found (R=.51, R2=.26, p<.01). This means that LA explains 26 percent of variance of WTC. When examined standardized beta coefficient and t values, it appeared that LA significantly predicts WTC. Also, significance test of the main predictive variable coefficient (B = .520) of the regression equation shows that LA is a significant predictive (p<.01).

The findings of the study conducted by Khaki (2013) were compatible with the present study in
terms of predictive power of LA. Khaki, in his study, aimed to present whether there was a statistically significant relationship between LA and WTC in Iranian EFL contexts. With this aim, the researcher concluded that LA could predict 30 percent of trait-like WTC (R = .556, R Square= .30), also LA could predict only 6.5 percent of situational WTC (R = .256, R square = .06). Based on the findings of the study of Khaki and the present study, one can conclude that LA significantly predicts WTC in EFL contexts.

Research Question 3: Is there a difference between Turkish EFL learners’ self-report and behavioural WTC levels according to their LA levels?

The three-week classroom observation made by the researcher showed that there were differences between the self-reported WTC and their actual classroom behavioural WTC of participants with both higher autonomy levels (r = 0.99) and lower autonomy levels (r = 0.44). There was a quite significant and positive correlation between the self-reported WTC and behavioural WTC of the most autonomous students participated in this study, while there was a moderate and positive correlation between the self-reported WTC and behavioural WTC of the least autonomous students who took part in this study. The correlation was higher for the most autonomous students than the least autonomous students, which concluded that the difference between the self-reported L2 WTC and behavioural L2 WTC of the most autonomous students was lower than the difference between the self-reported L2 WTC and behavioural L2 WTC of the least autonomous students. The findings of the classroom observation concluded that level of autonomy is predictive for determining the actual behavioural L2 WTC of the students in the classroom setting. The difference between the self-reported L2 WTC and behavioural L2 WTC of the Turkish EFL students is higher when the autonomy level of the students is lower. This indicates that the learners with higher autonomy levels report and actualize the similar willingness in their communication, which might show a true perception regarding their WTC level that would be reflected in the success of the students in a positive way.

Conclusion

The present study concludes that students’ WTC significantly differs in terms of LA variable. WTC of the students with higher level of LA is significantly higher than the students with a low level of LA. The study indicates that as the students’ WTC increases, their LA also increases. It was also found that there is a moderate but significant relationship between students’ WTC and LA. In summary, LA significantly predicts WTC inside the classroom in Turkish EFL contexts.

On the basis of the classroom observation, the study indicates that level of autonomy is predictive for determining the actual behavioural L2 WTC of the students in the classroom setting. The main finding regarding the self-reported and behavioural L2 WTC is that the difference between the self-reported L2 WTC and behavioural L2 WTC of the Turkish EFL students is higher when the autonomy
level of the students is lower.

In line with these remarkable conclusions, it can be suggested that language teachers should search for the effective ways of fostering LA to increase their learners’ WTC. The course syllabi and curricula of foreign language education should be designed with the aim of fostering LA. In EFL classroom settings, the EFL teachers who play a vital role in guiding, monitoring, and evaluating the learning process need to use effective strategies, such as reducing learner anxiety and encouraging learners to monitor their own stress and emotions so as to foster LA (Little, 2001). For further research, it can be suggested to employ different methods used in qualitative research such as reflective journals, focus group interviews, stimulated-recall interviews, or think-aloud protocols to enhance the credibility of the study. Further research can include the language teachers and gather the perceptions of the teachers regarding the issue to extend the understanding of the L2 WTC from the perspectives of EFL teachers.

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