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Research Article

The Relationship between Tertiary Level EFL Learners' Attitudes towards English and Technology and Their Autonomy Levels

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ABSTRACT

Technology is a vital part of language learning, and thus, students' attitudes towards it influence its effective use. Also, language learner autonomy is related to the use of technology. Thus, this study was conducted in a TELP (tertiary level intensive English program) to investigate students' attitudes towards English and technology, their autonomy levels, and the relationship between two constructs. Having a quantitative approach, two scales were used to gather data, English and Technology Attitudes Scale (ETAS) by Kearney et al. (2020) and Autonomy Perception Scale by Demirtaş (2010). The data from the scales was analysed using IBM SPSS Statistical Package 22.0. The findings revealed that students mostly had very positive attitudes towards English and technology, and male students achieved significantly higher results in confidence in English and technology than female students. In addition, the students were not found to be effectively autonomous. Furthermore, there was a significant and positive relationship between autonomy and attitudes towards English and technology. It can be concluded that autonomy improves using technology to learn English, and students who use technology to learn English become more autonomous. Teachers are responsible for guiding their students in this process.

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Introduction

As technology has become a vital part of everyday lives, it has also turned out to be an essential part of education. With the advent of Covid-19 pandemic, virtual classes and blended learning have become indispensable parts of language education, too. Second/foreign language (L2 henceforth) learners need to use Information and Communication Technology (ICT henceforth) every day to join classes, do homework, do exercises, and practice skills. Their attitudes towards the use of technology for L2 education is an important factor in their L2 learning process. The students' attitudes towards the use of technology influence the effectiveness of the technology use (Kitchakarn, 2015). Thus, attitudes towards the use of different technologies in class have been a focal point of investigation.

Attitude concept was defined by Gardner as "an evaluative reaction to some referent or object, inferred on the basis of the individual's beliefs or opinions about the referent" (1985, p. 91). In this sense, L2 learners' attitudes towards the use of technology have been investigated a lot since technology gained its importance in educational context. Previous studies investigated ELT students' attitudes towards the use of Web 2.0 tools (Aşıksoy, 2018; Tılfarlıoğlu, 2011), attitudes towards the use of mobile devices (m-learning henceforth) for learning English (Alshammari et al., 2018; Dashtestani, 2016,) attitudes towards the use of mobile learning (Yang, 2012; Yurdagül & Öz, 2018), attitudes towards the use of technology-enhanced language learning tools (Thao et al., 2019), attitudes towards the use of computer assisted language learning (CALL henceforth) (Asrifan et al., 2020; Ateş et al., 2006; Ayres, 2002; Kitchakarn, 2015; Rahimi & Hosseini, 2011) and attitudes towards the use of podcasts (Shahid & Ali, 2017).

On the other hand, autonomy is a part of the learners' choice of using technology for their own learning. Successful use of technology requires learner autonomy (Reinders, 2018). Holec defined autonomy as "the ability to take charge of one's own learning to have, and to hold the responsibility for all the decisions concerning all aspects of this learning" (1981, p.3). Language learner autonomy has been a hot point of debate for a long time. As the decision to include technology in one's own language learning process is an autonomous decision, the attitudes towards the use of technology are related to language learner autonomy. Serin and Bozdağ (2020) investigated the relationship between teachers' attitudes of using technology and teacher autonomy, but no studies to the researcher's knowledge have been carried out to investigate that relationship within the students' aspect after the Covid-19 pandemic. The pandemic has changed educational practices, and made it compulsory to adapt to new educational technologies all around the world. Therefore, this study aims to provide further information into the existing body of research on the relationship between the attitudes towards the technology and English and language learner autonomy with a post-pandemic perspective.

Literature review

Attitudes towards the Use of Technology

Educational technologies have been the focus of attention since the beginning of the new century, and have become even more important after the outbreak of Covid-19 pandemic. As the use of ICT is vital, educators have been interested in how to integrate technology into learning experiences (Kearney et al., 2020; Tılfarlıoğlu, 2011). Thus, the use of educational technologies to facilitate language learning has also dramatically increased (Ahmadi, 2018; Asrifan et al., 2020; Ayres, 2002; Güven, 2016; Kitchakarn, 2015). The use of educational technologies is an essential support to improve language learning (Ahmadi, 2018; Kitchakarn, 2015). For example, computers and Internet are expected to help language learners develop their listening, speaking, reading and writing skills (Kitchakarn, 2015; Yang & Chen, 2007) as well as providing L2 learners opportunities to practice. However, the effectiveness of educational technologies depends on the attitudes of L2 learners. Therefore, it is important to investigate learner attitudes in order to create an effective language learning environment with technology (Kadwa, 2012).

Many studies have investigated L2 learners' attitudes towards the use of technology in many different areas of the world with different purposes. The very first studies started to investigate L2 learners' attitudes towards the use of computer assisted language learning (CALL), and they found positive attitudes towards it. Ayres (2002) studied 157 undergraduate students' attitudes towards the use of CALL in New Zealand, and found that they appreciated using computers. Similarly, Ateş et al. (2006) investigated the attitude change of 30 high school students towards computers and English with CALL, and the learners' attitudes became more positive with CALL. Rahimi & Hosseini (2011) examined the effect of CALL activities on 42 Iranian high school female EFL learners' attitudes towards CALL, and found that CALL activities increased the level of positive attitudes of the learners from moderate to higher levels. Likewise, Sabti and Chaichan (2014) conducted a research study with 30 Saudi high school EFL learners to investigate these learners' attitudes towards the use of computer technologies in learning English. Their findings revealed that all the students had positive attitudes. Kitchakarn (2015) conducted a study to investigate 192 undergraduate EFL learners' attitudes towards using computers to learn English in Thailand, and the results indicated that students had positive attitudes. In another study, Asrifan et al. (2020) investigated 294 tertiary level students' attitudes towards CALL in Indonesia, and discovered all the participants had positive attitudes.

Some studies have taken more general approaches. In one of them, Güven (2016) investigated the attitudes of 143 tertiary level EFL learners from Turkey towards the use of ICT and media tools in learning English. Thao et al. (2019) aimed to explore the attitudes of 197 Vietnamese tertiary level EFL learners towards the use of technology-enhanced language learning tools, and found that the learners had a high positive attitude and it changed according to the levels of learners' academic achievement. On the other hand, Kearney et al. (2020) conducted a study to investigate the attitudes towards learning

English with technology with 419 secondary school students, and found that the majority of the students had poor attitudes towards learning English with technology.

Mobile phones, one of the technologies we use while learning English, have become an indispensable part of our lives. Thus, studies investigating the attitudes towards the use of m-learning have also increased, and found positive attitudes. According to Yang's (2012) study in which he investigated 58 college students' attitudes from Taiwan towards the m-learning, most students had positive attitudes and their motivation increased with m-learning. Yurdagül and Öz (2018) studied the attitudes of 294 preparatory school students in a Turkish university towards m-learning, and revealed similar results. In their study, Alshammari et al. (2018) investigated the attitudes of 425 Saudi preparatory year EFL learners towards the use of mobile technologies in learning English, and the findings showed that the students had strongly positive attitudes with future intentions to further use mobile technologies.

There are some studies that aim to explore attitudes towards certain types of technology, such as Web 2.0 tools. Tılfarlıoğlu (2011) investigated the attitudes of 534 EFL learners from Turkey and Iraq towards the use of Web 2.0 technologies in learning English, and their results demonstrated that learners' attitudes towards them changed significantly between public or private institutions and the countries. Shahid and Ali (2017) conducted a research to investigate the Saudi male EFL learners' attitudes towards video-podcasts to improve their listening skills, and found the learners had positive attitudes towards video-podcasting; however, there were no significant differences between three groups who had different amounts of video-podcasting during the instruction. Aşıksoy (2018) carried out a study with 207 EFL learners in Turkey about their attitudes towards the use of Web 2.0 technologies in learning English. According to the results, the learners had positive attitudes, were aware of Web 2.0 tools and found them useful to learn English.

In some of the mentioned studies, the researchers also investigated the effect of gender on the learners' attitudes; however, the results were contradictory. Most studies found no significant differences with regard to gender in the attitudes towards CALL (Ateş et al., 2006), using computers (Kitchakarn, 2015) and m-learning (Yang, 2012; Yurdagül & Öz, 2018). There were also some studies which indicated female students had higher positive attitudes towards the use of ICT (Güven, 2016; Sabti & Chaichan, 2014), whereas very few studies found male students with higher positive attitudes towards learning English with technology (Kearney et al., 2020). As the previous studies have had contradictory results about gender issue, the topic is still investigated in different contexts to understand the differences better.

To sum up, all these attitude studies investigated L2 learners' attitudes towards the use of different kinds of technologies such as CALL, ICT, m-learning and web 2.0 tools in different contexts from secondary school to universities. All but one found positive attitudes towards the use of these technologies. However, they had mixed results related to gender differences when investigated.

The Use of Technology and Language Learner Autonomy

Language learning is an individual process. Every L2 student has their own path to reach their goals on this challenging journey. Language learner autonomy has always attracted attention as it relates to the effort put into this journey. Being an autonomous language learner requires spending time out of class to learn the L2, actively participating in the process, and using some strategies to learn better (Harmer, 2001). There are a lot of factors affecting this process, and the interplay among these factors demonstrates the autonomy level of the learners (Benson, 2001). The use of technology is one of these factors, providing an appropriate environment for learners to develop autonomy (Mutlu & Eröz-Tuğa, 2013). Moreover, the use of technology gives learners opportunities to decide the time, place and circumstances of their own language learning (Mutlu & Eröz-Tuğa, 2013). In other words, ICT promotes language learner autonomy by giving learners chances to take responsibilities for their own learning (Çakıcı, 2016). The concept of student autonomy is dynamic; many factors can affect it, such as psychological factors and environmental factors such as teachers and learning context. (Zhong, 2018).

In the era of technology, using technology to support one's own language learning also is a sign of autonomy. Lai (2019) thinks the relationship between autonomy and technology is dynamic and bidirectional, which means they affect each other during language learning process. Moreover, using mobile technologies to learn English emphasizes learner autonomy, as it provides learning opportunities beyond the classroom (Dudeney & Hockly, 2012). ICT tools help language learners learn an L2 in a sociable, collaborative and authentic environment (Mutlu & Eröz-Tuğa, 2013). For example, Kılıç Gönen (2020) carried out a mixed method study to investigate the language learner autonomy levels of intensive English program students, and in the qualitative part of the study, all adequately autonomous participants (N=14) accepted using technology to improve their English. Mısır et al. (2018) conducted a study to investigate language learner autonomy in Massive Open Online Language Course (MOOC) with 57 participants. The learners were found to be highly autonomous, and they concluded that these online courses encouraged autonomy and autonomous activities. They also expressed that they engaged in web based autonomous activities.

Teachers are also thought to be effective in promoting language learner autonomy (Ludwig & Tassinari, 2021; Wiraningsih, & Santosa, 2020). There are some studies investigating it by giving L2 learners some strategy training to promote learner autonomy. Mutlu and Eröz-Tuğa (2013) conducted a mixed method research study to investigate if it was possible to develop language learner autonomy by using CALL with 48 tertiary level EFL learners from Turkey. To achieve this aim, they had some strategy training with the experimental group for five weeks, while they did not have any strategy training in the control group. Their results indicated that strategy training with CALL helped the learners in the experimental group develop significant autonomy. Teng (2018) explored the effects of strategy training on learner autonomy and L2 lexical knowledge with 90 Chinese L2 learners. For this aim, he used an experimental design with two experimental and one control groups. The experimental group which read online and got strategy training had an increase in learner autonomy.

Teachers believed online learning environments promoted learner autonomy (Ludwig & Tassinari, 2021). In one of the studies, Lenkaitis (2020) carried out a study to see if videoconferencing via Zoom for six weeks would enhance language learner autonomy. 25 L2 Spanish learners participated in the study. The findings demonstrated that the implementation was effective to promote language learner autonomy. Pasaribu (2020) carried out a study to explore how digital reader response tasks promoted language learner autonomy with 25 participants from Indonesia. Their findings revealed that the digital reader response tasks improved the learners' autonomy, and the participants claimed to find it useful. Likewise, Rinekso and Kurniawan (2020) conducted a study about teachers' perceptions about language learner autonomy and ICT with 30 English teachers in Indonesia. Majority of English language teachers were found to believe that ICT contributed to promote language learner autonomy.

There are some studies investigating gender differences in language learner autonomy. The studies have various results. Firstly, Varol and Yılmaz (2010) studied 80 Turkish EFL learners, and found that female students were more autonomous than male students. Özer and Yükselir (2021) carried out a study to investigate autonomy levels of 248 Turkish EFL learners, and female learners had higher autonomy scores than male learners. Although there were differences in autonomy levels of learners in these studies in favor of female learners, the results were not significantly different. Moreover, Alrabai (2017) investigated the autonomy levels of 630 Saudi EFL learners, and female learners were significantly more autonomous than male learners. Şakrak-Ekin and Balçıkanlı (2019) studied the autonomy levels of 267 EFL learners. Their findings suggested that female learners had higher levels of autonomy. On the other hand, some studies found no significant relationships between two genders. Bozkurt and Arslan (2018) examined 214 Syrian EFL learners living in Turkey, and their results demonstrated no significant relationships between female and male learners. Olur (2013) conducted a study to investigate the autonomy levels of 98 EFL learners, and no significant differences were found between the autonomy levels of female and male learners. Yiğit (2017) examined the autonomy levels of 212 ELT students, and found no significant relationships between genders. Kırmızı and Kıraç (2018) investigated the autonomy levels of 100 EFL learners, and they found no significant difference between the autonomy levels of female and male learners. Behforouz and Frumuselu (2020) examined 74 EFL learners' autonomy levels, and no significant differences were found between genders.

The current study is carried out to explore tertiary level intensive English program (TELP henceforth) learners' attitudes towards the use of technology in learning English and their autonomy levels. Moreover, it is aimed to investigate if learners' attitudes towards the use of technology in learning English differ according to gender. Finally, the present research is conducted to examine if there are any relationships between the learners' attitudes towards the use of technology in learning English and learner autonomy in the specific context. To achieve these aims, a quantitative approach was utilized and the following research questions were addressed:

1. What are the attitudes of TELP learners towards the use of technology, and are there any significant differences between the attitudes of TELP learners towards the use of technology in terms of gender?

2. What are the autonomy levels of TELP learners in learning English, and are there any significant differences between the autonomy levels of TELP learners in learning English in terms of gender?

3. Are there any relationships between the attitudes of TELP learners towards the use of technology and their autonomy levels?

Methodology

Research design

The current study was designed as a quantitative research study. The aim of the study was to generalize the results from the sample about the studied topic (Creswell, 2014). It was also designed as a cross-sectional study, which was one of the best types of designs to describe patterns and variables at a definite time (Dörnyei, 2007).

Participants

The target population was TELP students in Turkey. Using convenience sampling, the study was participated by 141 TELP students (F=83, M=58) studying at a state university in Turkey. Their ages ranged from 18 to 23, with a mean age of 19 years. 115 students started the program at A2 level, and 26 students started it at B1 level according to the placement test carried out at the beginning of the semester. All the students voluntarily participated to the study. They approved an online consent form to accept to join the study voluntarily before moving on to the online survey.

Instruments

An online Google survey was formed to gather quantitative data. The online survey had three parts. The first part aimed to gather some demographic information, so there were questions about the participants' gender, age and the level they started the program.

The second part of the survey consisted of English and Technology Attitudes Scale (ETAS) by Kearney et al. (2020). In order to eliminate the language barrier and misunderstandings due to insufficient language proficiency, the items were translated into Turkish. Translation was done by the researcher, and an expert was asked to check the translation. The scale consisted of 19 self-report items with a five-point Likert scale. The answers ranged from "strongly disagree" to "strongly agree". All the items were positively worded. Items were loaded on five factors, behavioural engagement, technology confidence, English confidence, emotional engagement and attitude towards technology for English (Kearney et al., 2020).

The third part of the survey consisted of Autonomy Perception Scale by Demirtaş (2010), which was adapted from the survey Figura and Jarvis (2007) and translated into Turkish. The scale consisted of self-report items with a five-point Likert scale. The participants needed to choose the frequency of the item (1= never, 2=rarely, 3=sometimes, 4=often, 5=always). All the items were positively worded. All the items were loaded on one factor (Demirtaş, 2010).

First, a small-scale pilot study was conducted with students (N=20) from one of the classes in the same program to ensure the reliability of the scales in context. Cronbach's alpha value of ETAS was found to be .861. Cronbach's alpha value of Autonomy Perception Scale was found to be .902. Both of the values were above .70, so both of the scales can be regarded as reliable in this context (Dörnyei, 2007).

Data collection and analysis

Prior to the data collection, the Ethics Committee of the Institute of Social Sciences was applied at the context of the study, and the necessary permissions were acquired from the School of Foreign Languages (Bandırma Onyedi Eylül Üniversitesi Etik Kurulu, 2021-9 03/12/2021). The survey consisting of three parts was formed in Google forms online. The link of the survey was shared with each class individually by the researcher between 22nd December and 24th December, 2021. The students were informed about the survey, they were asked to participate and their questions were answered. It took about 15 minutes for each participant to complete the survey.

Quantitative data were analyzed with the IBM SPSS 22.0 statistical package. First, descriptive statistics were used to answer the first research question and mean scores were calculated for the ETAS. Evaluation criteria were adopted from Kearney et al. (2020). In each subscale, the mean scores of 3,0 and below were regarded as "neutral or negative attitude". The mean scores between 3,01 and 4,0 showed "moderately high" attitudes, whereas the scores above 4,01 were regarded as "very positive attitude". Moreover, test of normality was conducted to see if the data was normally distributed. The skewness and kurtosis values were between +1.5 and -1.5, suggesting that the data could be regarded as normally distributed (Tabachnick & Fidell, 2013). Therefore, parametric tests were used to analyse the data further. To explore if there were any significant differences in terms of gender, an Independent Samples t-test was applied.

Furthermore, to answer the second research question, descriptive statistics were carried out, and the mean scores of Autonomy Perception Scale were calculated. Evaluation criteria of the scale were adopted from Demirtaş (2010). The mean scores up to 1,49 were evaluated as the activities were not carried out. The mean scores between 1,50 and 2,49 were evaluated as the autonomous activity was not preferred. The scores ranged from 2,50 to 3,49 were thought to be done inadequately. The scores between 3,50 and 4,49 were thought to be carried out adequately, whereas the mean scores above 4,50 were regarded as to be done effectively. In addition, test of normality was carried out to investigate if the data gathered by this scale was normally distributed. The skewness and

kurtosis values were between +1.0 and -1.0, so the data could be concluded to distribute normally (Barrett et al., 2011). Thus, parametric tests were used to answer the first research question. An Independent Samples t-test was conducted to investigate the gender differences in autonomy levels.

Finally, to investigate the relationship between students' autonomy perceptions and their attitudes, a correlation analysis was conducted. As the data from both scales was normally distributed, Pearson product-moment correlation was utilized (Dörnyei, 2007) to investigate this relationship.

Results

Attitudes towards English and technology

The first research question was asked to investigate TELP students' attitudes towards the use of technology. Firstly, descriptive statistics were carried out, and the mean scores for factors and individual students were calculated.

Table 1. Descriptive Statistics of Factors of ETAS

Factors	N	Mean	Std. Deviation
Behavioural Engagement	141	4,1702	,59843
Technology Confidence	141	3,9007	,93392
English Confidence	141	3,6933	,86725
Emotional Engagement	141	4,3759	,64547
Attitudes towards English with Technology	141	4,0833	,88472
Valid N (listwise)	141		

Table 1 above showed the mean scores of the factors. It demonstrated that the participants of the study had moderately high English confidence (M=3,69) and technology confidence (M=3,90), whereas they had very positive attitudes towards learning English with technology (M=4,08), very positive behavioural engagement in learning English (M=4,17) and emotional engagement in learning English (M=4,37). It can be concluded that they had lower confidence in English, but they had higher emotional engagement in learning English.

Table 2. ETAS Mean Scores of Individual Students

Factors	Ranges	Frequency	Percent
Behavioural Engagement	Neutral or Negative Attitude 1,00-3,00	9	6,38
	Moderately High Attitude 3,01-4,00	61	43,26
	Highly Positive 4,01-5,00	71	50,36
	Total	141	100,0
Technology Confidence	Neutral or Negative Attitude 1,00-3,00	31	21,99
	Moderately High Attitude 3,01-4,00	47	33,33
	Highly Positive 4,01-5,00	63	44,68
	Total	141	100,0

English Confidence	Neutral or Negative Attitude 1,00-3,00	36	25,53
	Moderately High Attitude 3,01-4,00	60	42,56
	Highly Positive 4,01-5,00	45	31,91
	Total	141	100,0
Emotional Engagement	Neutral or Negative Attitude 1,00-3,00	9	6,38
	Moderately High Attitude 3,01-4,00	27	19,16
	Highly Positive 4,01-5,00	105	74,46
	Total	141	100,0
Attitudes Towards Learning English with Technology	Neutral or Negative Attitude 1,00-3,00	19	13,48
	Moderately High Attitude 3,01-4,00	48	34,04
	Highly Positive 4,01-5,00	74	52,48
	Total	141	100,0

Table 2 above indicated the individual scores of the participants per factor. The participants had mostly moderately high (N=61, 43,26%) or very positive attitudes (N=71, 50,36%) towards behavioural engagement in learning English. For technology confidence, although highly positive attitudes were more (N=63, 44,68%), it was possible to see that the number are actually close to each other. Thus, students' confidence in the use of technology highly differs. More participants had moderately high attitudes only for English confidence (N=60, 42,56%), Still, the results were close to each other, showing the students' attitudes did not show any particular tendencies. For emotional engagement factor, the participants mostly showed highly positive attitudes (N=105, 74,46%), making it the highest percentage in the results. For the attitudes towards learning English with technology factors, the participants were also highly positive (N=74, 52,48%).

After exploring all the mean scores of the group and individuals, an Independent Samples t-test was conducted to investigate if there were any significant differences in any of the factors between genders. The results were listed in Table 3 below. In all factors, male participants had higher scores than female participants. However, out of five factors, there were significant differences between genders only in two factors, namely technology confidence and English confidence.

Table 3. Independent Samples T-test Results of ETAS

Factors	Gender	N	Mean	Std. Deviation	t	P
Behavioural Engagement	Male	83	4,19	,62042	,629	,530
	Female	58	4,13	,56864		
Technology Confidence	Male	83	4,18	,83883	4,718	,000*
	Female	58	3,48	,91338		
English Confidence	Male	83	3,92	,77845	4,045	,000*
	Female	58	3,35	,88371		
Emotional Engagement	Male	83	4,45	,58364	1,682	,095
	Female	58	4,26	,71614		
Attitudes towards learning English with Technology	Male	83	4,16	,91505	1,325	,187
	Female	58	3,96	,83305		

In technology confidence, there was a significant difference in mean scores between male (M=4,18, SD=,83) and female (M=3,48, SD=91), t(141)=4,718,p<,05. The effect size was found to be 0,14, which showed large effect size, explaining .14 per cent of the variance in technology confidence (Dörnyei, 2007). In English confidence, there was also a significant difference in mean scores between male (M=3,92, SD=,77) and female (M=3,35, SD=,88), t(141)=4,045,p<,05. Its effect size was calculated, and found to be 0,11, showing moderate effect size as it explained .11 per cent of the variance in English confidence (Dörnyei, 2007).

Autonomy perceptions

The second research question was asked to investigate learners' language learning autonomy. To begin with, descriptive statistics were conducted, and the mean scores for the scale and individual students were calculated. Table 4 below showed the descriptive statistics of the items in the scale. Q12 had the lowest score (M=2,30), which was the only activity was not preferred by the participants. The item showed that the students did not reflect on their activities. Most of the items (N=20, Q1, Q2, Q6, Q7, Q9, Q10, Q11, Q17, Q18, Q19, Q21, Q22, Q23, Q25, Q26, Q27, Q28, Q29, Q30) had mean scores between 2,50-3,49, which indicated most of these activities were done inadequately (for the questions, please check Appendix A). The mean scores of nine questions (Q3, Q4, Q5, Q8, Q13, Q14, Q15, Q16, Q20, Q24) were between 3,50-4,49, which showed these activities were done adequately, but no items were done effectively.

Table 4. Descriptive Statistics of Autonomy Scale

Items	N	Mean	Std. Deviation
Q1	141	2,96	1,081
Q2	141	2,85	1,114
Q3	141	3,50	1,026
Q4	141	3,73	,999
Q5	141	3,60	1,055
Q6	141	3,35	1,082
Q7	141	3,38	1,087
Q8	141	3,76	,909
Q9	141	2,87	,985
Q10	141	2,78	1,109
Q11	141	2,75	1,135
Q12	141	2,30	1,241
Q13	141	3,64	1,136
Q14	141	3,83	,956
Q15	141	4,13	,955
Q16	141	4,01	1,089
Q17	141	3,43	1,214
Q18	141	3,23	1,087
Q19	141	3,03	1,121
Q20	141	3,97	,978
Q21	141	3,35	1,135
Q22	141	3,09	,960
Q23	141	2,95	1,002
Q24	141	3,26	1,092
Q25	141	3,47	1,174
Q26	141	3,38	1,144
Q27	141	3,31	1,202
Q28	141	2,69	1,160
Q29	141	3,07	1,125
Q30	141	2,99	1,140
Valid N (listwise)	141		

Table 5 below showed the overall mean scores of participants' language learning autonomy levels. The mean score was 3,28, which meant the participants of the study were inadequately autonomous, which was in line with the results of individual items, because it showed that twenty items were done inadequately and one item was not preferred.

Table 5. Descriptive Statistics of Overall Autonomy Levels

Factors	Number	Mean	Std. Deviation
Mean of Autonomy	141	3,2882	,61746
Valid N (Listwise)	141		

In addition, individual autonomy levels were also calculated and demonstrated in Table 6 below. 14 students did not prefer to do autonomous activities. Nearly half of the participants (N=69, 48,94%) were inadequately autonomous. 56 students (39,72%) of the participants were adequately autonomous, and only 2 students (1,41%) were effectively autonomous. Thus, it was possible to conclude that most of the participants of this study (N=125, 88,76%) were either inadequately or adequately autonomous.

Table 6. Autonomy Perception Mean Scores of Individual Students

Ranges	Frequency	Percent
Students between 1-1,49	0	0
Students between 1,50-2,49	14	9,93
Students between 2,50-3,49	69	48,94
Students between 3,50-4,49	56	39,72
Students between 4,50-5,00	2	1,41
Total	141	100,0

After the language learning autonomy levels of the participants were explored, an Independent Samples t-test was conducted to investigate the differences in language learning autonomy levels between genders. The mean score of male students was 3,34, and the mean score of female students was 3,20. Although male students had a higher mean score than female students in the current study, there was no significant difference in the language learner autonomy levels between genders in this TELP (,209>,005).

The relationship between autonomy and ETAS

The third research question was aimed to explore if there were any relationships between language learner autonomy levels and ETAS. To answer this question, parametric Pearson product-moment correlation was conducted. The findings were demonstrated in Table 7 below. Language learning autonomy significantly and positively correlated with all sub-scales of attitudes. The highest correlation was between autonomy and emotional engagement (r=.425, p<.001). It was concluded that more autonomous learners engaged in learning English more. The second highest correlation was autonomy and English confidence (r=.418, p<.001), so more autonomous learners had more confidence in English. Autonomy also significantly and positively correlated with behavioural engagement (r=.406, p<.001), which meant students who were more autonomous engaged in activities related to learning English more. In addition, autonomy had a significant positive relationship with the attitudes towards learning English with technology (r=.344, p<.001). Thus, the students who were more autonomous had higher positive attitudes towards learning English with technology. Finally, there was a significant positive relationship between autonomy and confidence in using technology (r=.286, p<.001). This

result demonstrated that more autonomous learners also had more confidence in using technology.

Table 7. Correlations between Autonomy and Sub-scales of Attitudes

		A	BE	TC	EC	EE	ET
Autonomy (A)	Pearson Correlation	1	,406**	,286**	,418**	,425**	,344**
	Sig. (2-tailed)		,000	,001	,000	,000	,000
	N	141	141	141	141	141	141
Behavioural Engagement (BE)	Pearson Correlation		1	,350**	,445**	,624**	,316**
	Sig. (2-tailed)			,000	,000	,000	,000
	N		141	141	141	141	141
Technology Confidence (TC)	Pearson Correlation			1	,476**	,385**	,535**
	Sig. (2-tailed)				,000	,000	,000
	N			141	141	141	141
English Confidence (EC)	Pearson Correlation				1	,624**	,364**
	Sig. (2-tailed)					,000	,000
	N				141	141	141
Emotional Engagement (EE)	Pearson Correlation					1	,465**
	Sig. (2-tailed)						,000
	N					141	141
English with Technology (ET)	Pearson Correlation						1
	Sig. (2-tailed)						
	N						141

**. Correlation is significant at the 0.01 level (2-tailed).

Furthermore, sub-dimensions of ETAS correlated significantly and positively with each other too. The highest correlations were between Emotional Engagement and English Confidence (r=.624, p<.001), and Behavioural Engagement and Emotional Engagement (r=.624, p<.001). Also, the second highest significant and positive relationship was between Technology Confidence and attitudes towards learning English with technology (r=.535, p<.001). In addition, there were significant positive relationships between Behavioural Engagement and Technology confidence (r=.350, p<.001), Behavioural Engagement and English confidence (r=.445, p<.001), Behavioural Engagement and attitudes towards learning English with technology (r=.316, p<.001), Technology Confidence with English confidence (r=.476, p<.001), Technology Confidence with Emotional Engagement (r=.385, p<.001), English Confidence and attitudes towards learning English with technology (r=.364, p<.001), and Emotional Engagement with attitudes towards learning English with technology (r=.465, p<.001).

Discussion

This quantitative study was conducted to investigate three research questions related to TELP students' attitudes, autonomy levels, and their relationships. The first research question was related to the attitudes of the participants. They were found to have moderately high English confidence (M=3,69) and technology confidence (M=3,90), whereas they had very positive attitudes towards learning English with technology (M=4,08), behavioural engagement in learning English (M=4,17) and emotional engagement in learning English (M=4,37). It can be concluded that they had lower confidence in English and technology use. As their English levels are not very high, lower English confidence is not surprising. However, it is unexpected to see they had lower confidence in technology as they use it every day, even for their online classes or homework. Furthermore, they had higher behavioural and emotional engagement in

learning English. The students in TELP either chose a voluntary TELP program, or a department the medium of which was English, so they knew they would study English for a year. Moreover, they had very positive attitudes towards the use of technology to learn English, which directly influences the effectiveness of technology use (Kitchakarn, 2015). Since the interest in using technology to teach English arouse, there have been many studies which found positive attitudes towards using it (Alshammari et al., 2018; Asrifan et al., 2020; Aşıksoy, 2018; Ateş et al., 2006; Ayres, 2002; Dashtestani, 2016; Güven, 2016; Kitchakarn, 2015; Rahimi & Hosseini, 2011; Sabti & Chaichan, 2014; Shahid & Ali, 2017; Thao et al., 2019; Yang, 2012).

Emotional engagement is the subscale the most students were highly positive about (74,46%), while English confidence is the one where students had moderately high attitudes (42,56%). These findings showed that they wanted to engage in learning English emotionally, such as being interested in learning English, thinking it is fun or beneficial; however, they did not have enough confidence in themselves while learning English.

Although male students had higher means in all factors, there were only significant differences between genders in two dimensions; in technology confidence with a large effect size and in English confidence with a moderate effect size. Yang (2012) studied self-efficacy beliefs of students for m-learning, and found males had significantly higher self-efficacy beliefs. In behavioural and emotional engagement and attitudes towards learning English with technology no significant differences between genders were revealed. Previous studies have contradictory results related to gender differences even in similar contexts; however, only Kearney et al. (2020) found males with significantly more positive attitudes. It should be remembered that three of the sub-dimensions did not have significant differences between genders, so it is in line with Ateş et al. (2006), Kitchakarn (2015), Yang (2012) and Yurdagül and Öz (2018). It can be concluded that attitudes towards the use of technology are very individualistic, so they change even in similar contexts of in the same country.

The second research question was aimed to have an understanding related to language learning autonomy perceptions of the participants. Most of the autonomous activities (66,66%) were done inadequately. Most of the participants were either inadequately autonomous (N=69, 48,94%) or adequately autonomous (N=56, 39,72%). In this program, the students take 30% of their classes online, and they have weekly online writing assignments. In their study in MOOC context, Mısır et al. (2018) found the learners were highly autonomous.

Students may choose their learning contexts according to their autonomy levels, or the contexts may also have an impact on their autonomy levels. There are some studies which found teachers were effective in developing their learners' autonomy (Ludwig & Tassinari, 2021; Wiraningsih, & Santosa, 2020). Also, Zhong (2018) claims psychological and environmental factors affect learner autonomy. On the other hand, there were no significant differences between genders in terms of autonomy perception levels. This is in line with the studies conducted by Olur (2013), Yiğit (2017), Bozkurt and Arslan (2018), Kırmızı and Kıraç (2018), and Behforouz and Frumuselu (2020). However, there are studies which demonstrated female learners were more autonomous language learners

(Alrabai, 2017; Özer & Yükselir, 2021; Şakrak-Ekin & Balçıkanlı, 2019; Varol & Yılmaz, 2010). Thus, further studies can be useful to have a deeper understanding about the differences in these results.

The third question was asked to investigate if there was a relationship between participants' autonomy perceptions and attitudes. Language learning autonomy perception correlated with positively and significantly with sub-dimensions of the attitudes, namely behavioural engagement (r=.406, p <.001), confidence in technology (r=.350, p<.001), confidence in English (r=.406, p<.001), emotional engagement and attitudes towards learning English with technology. The students who were more autonomous were also expected to have higher behavioural and emotional engagement in learning English as autonomous learners were reported to be engaged in autonomous language learning activities (Kılıç Gönen, 2020; Mısır et al., 2018) more than the others and more effectively. Furthermore, autonomy perceptions and confidence in English and technology use had significant positive relationship, too. Thus, it can be concluded that more autonomous learners may have more confidence. In this study, most of the students did not have effectively autonomous levels, and they had moderate confidence in English and technology. In addition, autonomy and attitudes towards learning English with technology positively and significantly correlated. As Reinders (2018) puts forward, successful technology use requires learner autonomy, which can explain the results of attitudes towards the use of technology to learn English. Also, there are some studies which found use of ICT promoted learner autonomy (Çakıcı, 2016; Lenkaitis, 2020; Pasaribu, 2020; Rinekso & Kurniawan, 2020; Teng, 2018).

Moreover, ETAS sub-dimensions significantly and positively correlated with each other as well. When looking at the highest correlations, behavioural and emotional engagement significantly and positively correlated (r=.624,p<.001). It can be concluded that students who are more interested/motivated/happy/willing etcetera to learn English are also engage in learning activities or attend more regularly or vice versa. English confidence and emotional engagement significantly and positively correlated too (r=.624,p<.001), explaining students who are more confident in English are also more interested/motivated/happy/willing etcetera to learn English. Finally, technology confidence and attitudes towards the use of technology significantly and positively correlated (r=.535, p<.001), indicating that students who are more confident in using technology have more positive attitudes towards using it to learn English. These results can help us understand how these constructs interact with each other, and help us improve our students as improving one will result in improvements in the other construct, too.

Conclusion

The current study was conducted to investigate TELP students' attitudes towards English and technology, language learner autonomy, and their relationship. The participants had very positive attitudes towards learning English with technology, behavioural and emotional engagement in learning English. For the individual subscales, the participants were highly positive about behavioural engagement, technology confidence, emotional engagement and attitudes towards learning English with technology.

Moreover, significant differences were found between genders in technology confidence and English confidence. On the other hand, the participants were mostly inadequately autonomous, and they did autonomous activities inadequately. No gender differences were found in language learning autonomy levels of the students. Finally, there was a significant positive relationship between autonomy and behavioural engagement, technology confidence, English confidence, emotional engagement and attitudes towards learning English with technology each.

With the outbreak of Covid-19, technology became an inevitable part of education. Having positive attitudes towards learning English with technology is vital. Teachers have responsibility for that to investigate and ensure students have that, which will help their students' learning process, as technology provides them easy access to information while learning an L2 (Yurdagül & Öz, 2018). Also, technology helps learners solve their problems occurring during language learning, and provides them a context to practice what they learn effectively and meaningfully (Ahmadi, 2018).

The participants in this study had lower confidence in both technology and English. Self-efficacy beliefs related to learning an L2 and using technology can be investigated further, and their possible relationship can be investigated to understand the students and the concepts better. It is essential for language learners to be effectively autonomous to learn an L2 better and faster. Effectively autonomous learners also use technology to improve themselves. In this context, there are no effectively autonomous learners. The teachers working in TELP in Turkey can investigate and work on this issue. Strategy training and using technology seem to help improve language learner autonomy.

Language learner autonomy and all sub-dimensions of the attitudes are significantly and positively interrelated. Thus, if teachers work on the attitudes towards technology and learning English, it will affect learners' autonomy in return, or vice versa. Teachers can help improve their learners' use of technology, and support their learners in the process (Reinders, 2018). Sub-dimensions significantly and positively correlated as well. If teachers know their students' attitudes, understanding these relationships will help them provide better guidance for their students. For example, providing the students with activities which can improve their confidence in English by showing them they can actually communicate in English, teachers can also help them engage in learning English more enthusiastically and use technology more autonomously for this aim.

Limitations of the Study

There are some limitations of the study. Firstly, this was a quantitative study, which provided us some information, but we may need further qualitative studies to understand why these things occur. Also, there was only gender variable to investigate the attitudes and autonomy. More variables can be investigated to understand the concepts better.

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Appendices

Appendix A. English and Technology Attitudes Scale in Turkish

Bölüm 1: Kisisel Bilgiler		
1.	**Cinsiyet**	**___ Kadin / ___ Erkek**
2.	**Yas**	**___**
3.	**Ingilizce Seviyeniz**	**___ A2 / ___ B1**

Bölüm 2: Ingilizce ve Teknoloji Tutumlari Ölçegi	**Kesinlikle Katilmiyorum**	**Katilmiyorum**	**Emin Degilim**	**Katiliyorum**	**Kesinlikle Katilmiyorum**
1. Ögretmen Ingilizce bir soru sordugunda, sorunun cevabini düsünmeye çalisirim.	**1**	**2**	**3**	**4**	**5**
2. Eger Ingilizce konusurken bir hata yaparsam, düzeltene kadar üzerinde çalisirim.	**1**	**2**	**3**	**4**	**5**
3. Eger Ingilizce bir soruya nasil cevap vermem gerektigini bilmiyorsam, ögrenmeye çalisirim.	**1**	**2**	**3**	**4**	**5**
4. Bilgisayar kullanmakta iyiyim.	**1**	**2**	**3**	**4**	**5**
5. Oyun konsollari, tabletler, akilli telefonlar vs. gibi cihazlari kullanmakta iyiyim.	**1**	**2**	**3**	**4**	**5**
6. Teknik problemleri çözmede iyiyim.	**1**	**2**	**3**	**4**	**5**
7. Okul için gerekli olan herhangi bir bilgisayar programinin ya da uygulamanin üstesinden gelebilirim.	**1**	**2**	**3**	**4**	**5**
8. Zihnim Ingilizceyle bagdasir.	**1**	**2**	**3**	**4**	**5**
9. Ingilizce ögrenmede iyi sonuçlar elde edebilirim.	**1**	**2**	**3**	**4**	**5**
10. Ingilizce ögrenirken karsima çikan zorlayici noktalarla basa çikabilirim.	**1**	**2**	**3**	**4**	**5**
11. Ingilizce' de kendime güvenirim.	**1**	**2**	**3**	**4**	**5**
12. Ingilizce' de yeni seyler ögrenmekle ilgileniyorum.	**1**	**2**	**3**	**4**	**5**
13. Ingilizce ögrenmek faydalidir.	**1**	**2**	**3**	**4**	**5**
14. Ingilizce ögrenmek eglencelidir.	**1**	**2**	**3**	**4**	**5**
15. Ingilizce sorulan bir soruya yanit verebildigimde memnuniyet duygusu hissederim.	**1**	**2**	**3**	**4**	**5**
16. Ingilizce için teknolojik araçlari kullanmayi severim.	**1**	**2**	**3**	**4**	**5**
17. Ingilizce ögrenmek için teknolojik araçlari kullanmak zahmete deger bir seydir.	**1**	**2**	**3**	**4**	**5**

18. Ingilizce ögrenirken teknolojik araçlari kullanmak daha ilginçtir.	**1**	**2**	**3**	**4**	**5**
19. Ingilizce ögrenirken teknolojik araçlari kullanmak daha iyi ögrenmeme yardimci olur.	**1**	**2**	**3**	**4**	**5**

Appendix B. Perception of Autonomy Scale

ÖZERKLIK ALGI ÖLÇEGI

Asagida egitim sürecinizde özerklik durumlarini betimlemeye yönelik ifadelere yer verilmistir. Lütfen sorularinizi cevaplarken **INGILIZCE ÖGRENMEYI** düsününüz. Her bir madde ile tanimlanan davranisi gösterme sikliginizi, asagida belirtilen besli derecelendirme ölçegi üzerinde uygun gelen seçenegi (ölçek noktasini) isaretleyerek belirtmeniz beklenmektedir.

Bölüm 3: Ölçek **DAVRANIS**	**Hiçbir zaman**	**Nadiren**	**Bazen**	**Sik sik**	**Her zaman**
1. Ingilizce ögrenme sürecimi planlarim.	**1**	**2**	**3**	**4**	**5**
2. Ingilizce ögrenirken zaman planlamasi yaparim.	**1**	**2**	**3**	**4**	**5**
3. Ingilizce ögrenme amaç ve hedeflerimi belirlerim.	**1**	**2**	**3**	**4**	**5**
4. Ingilizceyi daha iyi ögrenmenin yollarini arastiririm.	**1**	**2**	**3**	**4**	**5**
5. Ingilizce ögrenmek için düzeyime uygun araçlar ve materyaller bulmaya çalisirim.	**1**	**2**	**3**	**4**	**5**
6. Arkadaslarimla ve/veya ögretmenlerimle Ingilizce konusmaya çalisirim.	**1**	**2**	**3**	**4**	**5**
7. Arkadaslarimla ve/veya ögretmenlerimle nasil Ingilizce ögrenilecegi konusunda görüs alisverisinde bulunurum.	**1**	**2**	**3**	**4**	**5**
8. Anlamadigim bir konu hakkinda arkadaslarimdan ve/veya ögretmenlerimden yardim almaya çalisirim.	**1**	**2**	**3**	**4**	**5**
9. Bir ögrenme etkinliginin sonunda ne kadar ögrenebildiğim hakkinda arkadaslarima ve/veya ögretmenlerime yorumlar yaparim.	**1**	**2**	**3**	**4**	**5**
10. Bir ögrenme etkinliginin sonunda ne kadar ögrenebildiğim hakkinda arkadaslarimdan ve/veya ögretmenlerimden yorumlar yapmasini isterim.	**1**	**2**	**3**	**4**	**5**
11.Bir ögrenme etkinliginin sonunda arkadaslarimin ne kadar ögrenebildigi hakkinda yapici yorumlar yaparim.	**1**	**2**	**3**	**4**	**5**
12. Ögrenme etkinliklerim hakkinda kendi yaptigim ya da baskalarindan aldigim yorumlari yazarim.	**1**	**2**	**3**	**4**	**5**
13. Radyo, internet vb. kaynaklardan Ingilizce konusmalari dinlerim. Eger yanitiniz 'Hiç bir zaman' ise 19. sorudan devam ediniz.	**1**	**2**	**3**	**4**	**5**
14. Ingilizce dinleme yaparken önemli anahtar kelimelere yogunlasirim.	**1**	**2**	**3**	**4**	**5**
15.Ayni dinleme metnini daha iyi anlamak için mümkün ise birkaç kez dinlerim.	**1**	**2**	**3**	**4**	**5**
16. Ingilizce sarkilari sözlerini anlayarak dinlemeye çalisirim.	**1**	**2**	**3**	**4**	**5**
17. Karsilastigim yeni sözcükler, sözcük gruplari, deyimler ya da yapilari not alirim.	**1**	**2**	**3**	**4**	**5**
18. Yeni karsilastigim her sözcük ya da yapiyi her firsatta konusarak kullanmaya çalisirim.	**1**	**2**	**3**	**4**	**5**
Eger 13. maddeye hayir yaniti verdiyseniz bu sorudan baslayiniz.	**1**	**2**	**3**	**4**	**5**

19. Yeni karsilastigim her sözcük ya da yapiyi her firsatta yazarak kullanmaya çalisirim.					
20. Ingilizce program veya film izlerken daha iyi anlamak için görüntüye dikkat ederim.	**1**	**2**	**3**	**4**	**5**
21. Karsilastigim yeni sözcükler, sözcük gruplari, deyimler ya da yapilari not alirim.	**1**	**2**	**3**	**4**	**5**
22. Yeni karsilastigim her sözcük ya da yapiyi her firsatta konusarak kullanmaya çalisirim.	**1**	**2**	**3**	**4**	**5**
23. Yeni karsilastigim her sözcük ya da yapiyi her firsatta yazarak kullanmaya çalisirim.	**1**	**2**	**3**	**4**	**5**
24. Kitap, dergi, gazete, internet vb. kaynaklardan Ingilizce okurum. Eger yanitiniz 'Hiç bir zaman' ise asagidaki sorulari yanitlamayiniz.	**1**	**2**	**3**	**4**	**5**
25. Bir parçayi okumaya baslamadan önce baslik ve resimlerden konu hakkinda tahminde bulunmaya çalisirim.	**1**	**2**	**3**	**4**	**5**
26. Parça içindeki bilinmeyen kelimelerin anlamini sözlük kullanmadan tahmin etmeye çalisirim.	**1**	**2**	**3**	**4**	**5**
27. Karsilastigim yeni sözcükler, sözcük gruplari, deyimler ya da yapilari not alirim.	**1**	**2**	**3**	**4**	**5**
28. Kelime bilgimi tazelemek için düzenli olarak daha önce okuduğum parçalarin üzerinden geçerim.	**1**	**2**	**3**	**4**	**5**
29. Yeni karsilastigim her sözcük ya da yapiyi her firsatta konusarak kullanmaya çalisirim.	**1**	**2**	**3**	**4**	**5**
30. Yeni karsilastigim her sözcük ya da yapiyi her firsatta yazarak kullanmaya çalisirim.	**1**	**2**	**3**	**4**	**5**