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Learner Autonomy and Learning Strategy Use before and during the COVID-19 Pandemic

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Abstract: This study aims to explore the autonomy level and use of language learning strategies in a preparatory school of a state university before and during the COVID-19 pandemic. One hundred fifty-five preparatory school students from a state university participated in the research. For the data collection, Oxford's Language Learning Strategy (LLS) and a learner autonomy questionnaire developed by Zhang and Li were used. Means, standard deviation, *t*-test, and Pearson's r-correlation were used to analyze the data. The results showed that while participants' level of learner autonomy before the pandemic was high, during the pandemic it was moderate. Additionally, the results from the LLS questionnaires showed that students used a moderate proportion of language learning strategies before and after the pandemic. Finally, the correlation analysis used to determine the relationship between the level of learner autonomy and LLS use before and during the COVID-19 pandemic indicated that there is a positive and linear relationship between the level of learner autonomy and LLS use.

Keywords: learner autonomy; language learning strategies; online learning; metacognitive strategies

1. Introduction

Coronavirus, also known as COVID-19, is a threat to life worldwide [1]. UNESCO claims that COVID-19 has affected the Turkish and global sectors of education. The government has released and enforced a variety of COVID-19 outbreak policies in Turkey. One of them is to prohibit people from meeting and performing activities outside the house [2]. The COVID-19 pandemic in Turkey, has triggered radical changes to the learning environment, including universities. In preparatory schools, for example, English is typically taught in the classroom in a formal system with the necessary equipment and facilities. However, COVID-19 has required online learning. The priorities remain unchanged, but the whole structure changed. Technology increased the language teaching options [3].

All universities in Turkey introduced a learning system through online media to mitigate the consequences of COVID-19. This condition changed the method of learning to keep students involved. For example, because of the limited guidance provided by lecturers, students are required to think critically, actively, and creatively. Online learning was implemented years ago and is not a new concept for education [4]. The implementation of online learning was consistent with the requirements of the 21st century, including connectivity, teamwork, imagination, and critical reasoning [5]. Online-based English language learning provides students with flexibility and comfort. However, when students are not autonomous, it was considered less effective [6]. Lack of autonomy and language skills in online classes can create psychological distance, dissatisfaction, and failure, especially in those who are not used to learning online [7], since the main aspects of the language learning process are autonomy and the use of language learning strategies. Autonomy has a long history that goes back to the 1970s, as a conception in the field of English language

teaching. Autonomy refers to the ability of learners to monitor their education. The acquisition of one's learning with an active involvement is a prerequisite for language learning to be successful, whether it is to monitor or be in charge of learning [8].

The autonomy of learners does not inherently imply an intrinsic capacity. Learners should be able to develop autonomy to learn the target language more efficiently [9]. Chan [10] advises that an instructor should be responsible for making students understand that they are supposed to become autonomous learners. In other words, the growth of autonomy in each learner should be an objective in the sense of learning a second language (SLA) and in language classrooms. This goal increases the awareness that student autonomy in the course design process is to be incorporated into the curriculum. Cotterall [11] presents several techniques contributing to learner objectives and learning processes, which can be taken into account in fostering the autonomy of students through the curriculum. These techniques can also play a remarkable role in the process of language education. In other words, the autonomy of learners should also be one of the priorities of language teachers. The need for this incorporation can also be supported by the fact that teachers cannot pass all of their expertise to their students. It is easier to show them how to learn all by themselves [12].

With the rising emphasis on the individual's autonomy and definition of autonomy, interest in different strategies used by students is also greater. Azumi [13] states that individual differences such as age, gender, motivation, and ability can influence the implementation of learning strategies. These concepts are all different. Such research may show that language learning strategies are an essential part of effective learning and become more important as language education is perceived as a process in which students actively engage in differences between themselves. Macaro [14] explores the structure of language learning methods in his study. The author notes that an aim, situation, and mental intervention should be included in the definition of learning strategies [14]. The study results also indicate that quality education can go beyond the frequency of use of strategies. The arrangement of different techniques should be correlated with the situation, not the frequency. Similar to autonomy, students have been very interested in learning strategies. The relationship between language learning strategies and other principles, such as the level of learning skills, is important [15].

Learning strategies are, therefore, considered essential, and research worthwhile defining these strategies and determining how they communicate with other education concepts, such as autonomy and the extent of language expertise, is regarded as essential. Latest studies have shown that English language learners have used multiple methods and strategies for categorizing LLS differently. The common taxonomy was developed by Oxford [16]. She categorized LLS as direct, consisting of memory, cognitive, compensatory strategies, and indirect, consisting of metacognitive, affective, and social strategies, in two sections. Successful students are aware of the techniques they use in language learning and the reason for using them [16].

Various research focused on the use of LLS and the recognition of techniques most widely used by students [17,18]. Other research based on the adoption of the LLS by school-aged students [19,20]. The use of LLS in language learning is also explored to promote learning and enhance language proficiency [18,20,21]. Some researchers have stressed that mastery primarily affects how the technique is used. Successful students employed a broader range of strategies than those who were less effective [21]. Some studies have examined the LLS's effect on language competencies. LLS is significant for the assessment of perceived language production and affects the language learning process [20]. Another important aspect of research is the study of the use of strategy concerning variables such as attitudes and motivation [20,22]. Most studies have shown that LLS is most commonly used by people who are positive rather than negative.

It is nothing but real experiences that make learner autonomy and LLS important subjects to be discussed. These experiences demonstrate that, even though they share several similarities such as age or department, several language students vary in terms of

autonomy levels. Additionally, students may develop new language learning strategies that function well for themselves in various circumstances. As individuals with their own learning strategies, autonomy should be approached holistically; there is now a particular interest in being able to define their connection with one another. Moreover, the students started to learn through online education following the spread of the COVID-19 pandemic and needed more autonomous learning. This contributed to the need for autonomy and the use of language learning strategies.

Oxford [23] indicates that language learning strategies indicate learner autonomy as LLS may help to plan, monitor, and guide their learning processes. The possibility of a link between the autonomy level of the students and the use of their strategy during the language learning process, therefore, needs to be investigated. While different research on the concepts of autonomy and learning strategies are performed separately, it is worth the study to define the relationship between the two before and during online education.

Many longitudinal studies were conducted concerning learner autonomy and language learning strategies for language students [24]. As Wong [25] stated, it can promote LLS usage among students with high self-efficiency. Furthermore, he found that metacognitive techniques influence the self-efficacy of EFL students. The studies noted above were performed at the level of university students. Additionally, several research studies were performed to analyze the autonomy of learners [26,27].

Autonomy is very critical because students have a chance to take an active part in the learning process to achieve a better outcome. In several studies, the different LLS used by learners were also reviewed. This research shows that students' use of these LLS when learning a language is challenging for them [28]. However, research into the relationship between the two remains very minimal, so that a study on this matter is worthwhile. This present study, therefore, seeks to expand existing knowledge by discovering the relationship between learner autonomy and LLS use before and during the pandemic. The practical aspect of this study is that if such LLS can be applied to increase the degree of autonomy, the students can be guided more consciously and therefore more effectively. Besides the fact that the interplay between LLS and learning autonomy should be studied in particular, the most important aspect is to understand how they are used before and during the COVID-19 pandemic. Moreover, it is essential to see how different LLS and levels of autonomy are used during traditional and online education.

In the light of the above discussion, this study aims to determine the level of autonomy and the use of LLS before and during the pandemic. The study also investigates whether these two variables have any significant relationship. The research questions of this study are:

(1) What is the level of autonomy of preparatory school students before and during the COVID-19 pandemic?
(2) Which language learning strategies are used by preparatory school students before and during COVID-19?
(3) Is there a significant relationship between the autonomy level and the use of language learning strategies among preparatory school students before and during COVID-19?

2. Materials and Methods

This study is descriptive and based on quantitative methods of research. A correlation and descriptive model were used in this research. LLS and autonomous learning are dependent variables in this study. This study attempted to describe a current situation. Additionally, a correlation analysis was performed to assess if the autonomy level and LLS use by the groups were statistically significant before and during the pandemic. To assess how the relationship differed before and throughout the pandemic, the correlation study was carried out separately within each group.

2.1. Participants

This research was carried out by studying a total of 155 learners in 2019–2020 at the preparatory school of a state university. The distribution of data on the demography of the students involved in the study is listed in Table 1.

Table 1. Demographic characteristics of preparatory school students.

Variables	Groups	*n*	%
Gender	Male	77	49.67
	Female	78	50.33
	Total	155	100

As shown in Table 1, 49.6% of the preparatory grade students in the sample are males, while 50.3% of them are females.

2.2. Data Collection Tools

Two questionnaires were used as instruments for data collection. One of them was the learner autonomy questionnaire developed by Zhang and Li [29], and the other one was Oxford's [16] language learning strategies questionnaire. A question on the gender of the students was added to these surveys to collect personal information. In this study, the participation was voluntary for students. The participating students had consent for the engagement in the research. The data collection and handling were declared to correspond strictly with the usual norms of research ethics accepted by Ankara Hacı Bayram Veli University.

2.2.1. Learner Autonomy Questionnaire

The key concept of the learner autonomy questionnaire [29] is based on the four components as "the willingness, self-confidence, motivation, and ability of the students". There are two main parts to the questionnaire. The first part aims at identifying participants' autonomy levels driven by self-evaluation. In this section, participants choose the closest option on a Likert scale. The goal is also to collect more precise details on their self-definition of autonomy in the second part. The questionnaire includes 11 items with a 5-point Likert scale form from "Never" to "Always". In these eleven items forming the first part of the questionnaire, the level of autonomy is determined based on the average score of the participants. Regarding the categorization, the interval 1.0–2.4 is low, 2.5–3.4 is medium, and 3.5–5.0 is a high degree of autonomy for the learner. For the scale, the Cronbach alpha coefficient is calculated to be 0.73.

2.2.2. Language Learning Strategies Scale

Oxford's [16] language learning strategy scale with 50 items was used to assess the students' use of LLS. It is structured to analyze language learning strategies with two main categories and six subcategories. The major categories are divided into two classes, namely, "direct strategies" and "indirect strategies;" subcategories of direct strategies are "memory, cognitive, and compensation strategies" and subcategories of indirect strategies are "metacognitive, affective, and social strategies". This 5-point Likert scale ranges from "never correct to always correct". A 46-item structure with six subcategories was obtained from the factor analysis to determine the constructive validity of the scale. The Cronbach alpha coefficient for the whole scale was calculated to be 0.88. The reliability coefficients for the subcategories are listed as follows: "memory strategies as 0.87, cognitive strategies as 0.91, compensation strategies as 0.83, metacognitive strategies as 0.96, affective strategies as 0.87, and social strategies as 0.85". Based on the Cronbach alpha coefficient values, it was decided that the scale is reliable.

2.3. Data Collection and Analysis

The data were collected through two questionnaires distributed before and before and during the COVID-19 pandemic from preparatory school students who studied at a state university. The study was initiated before the COVID-19 pandemic. The researchers aimed to conduct a research study to explore the autonomy level and use of language learning strategies by students in a preparatory school of a state university and gathered data by using the scales mentioned. However, as COVID-19 emerged, they decided to reshape their study to analyze the autonomy level and usage of language learning strategies before and during COVID-19. The purpose of the data collection was explained to the students during the application of the scales. Participants were carefully ensured to participate in the study. The main data were gathered in compliance with legal standards and ethical concerns. Following the standards of confidentiality, participants were informed about the purpose of the study. The participants also issued a consent form.

With the SPSS 22 program, the data were analyzed. Initially, the Kolmogorov–Smirnov test examined whether a normal distribution was reached in the sample. The analysis showed that the data provided a normal distribution ($p > -0.5$).

3. Results

3.1. Level of Learner Autonomy

This section addresses the results of the study based on the data gathered through the learner autonomy survey. In the questionnaire, the level of autonomy is determined based on the average score of the participants. Regarding the categorization, the interval 1.0–2.4 is low, 2.5–3.4 is moderate, and 3.5–5.0 is a high degree of autonomy for the learner. First, to show the overall learner autonomy level of the participants, the means and standard deviation of each domain in the questionnaire are given. Even a *t*-test was used in the analysis of results. The *t*-test was used to compare the mean values of two samples. The *t*-test compares the means of learner autonomy level before and during the COVID-19 pandemic. Findings regarding the scores obtained from the learner autonomy questionnaire are presented in Table 2.

Table 2. The level of learner autonomy before and during the pandemic.

Domain		Before Pandemic	During Pandemic	t	Sig.
Willingness	$\bar{x}$	4.01	2.18	4264	0.000 *
	Sd	0.82	0.39		
	autonomy level	high	low		
Self-confidence	$\bar{x}$	3.79	3.01	3816	0.000 *
	Sd	0.55	0.78		
	autonomy level	high	moderate		
Motivation	$\bar{x}$	3.65	2.00	4932	0.003 *
	Sd	0.81	0.91		
	autonomy level	high	low		
Capacity	$\bar{x}$	3.21	3.28	−1316	0.205
	Sd	0.72	0.76		
	autonomy level	moderate	moderate		
Total	$\bar{x}$	3.66	2.61	4102	0.002 *
	Sd	0.72	0.71		
	autonomy level	high	moderate		

* $p < 0.05$.

Table 2 shows that the total mean ($\bar{x}$) of the learner autonomy level of preparatory school students before the pandemic was 3.66 and the standard deviation (SD) was 0.72, and during the pandemic the total mean was $\bar{x}$ 2.61 and SD 0.71. The range of 3.66 according to the parameters indicates a high level of autonomy for learners, while 2.61 indicates

a moderate level of learner autonomy. Thus, it can be claimed that while the learner autonomy level of the participants before the pandemic was high, it was at a moderate level during the pandemic. When both of the groups are compared, there exists a significant difference between the levels of autonomy (t: 4102 $p < 0.05$). This means that the participants had higher levels of learner autonomy before COVID-19 than after its spread.

When Table 2 is analyzed in detail, it can be stated that before COVID-19, the participants had high levels of learner autonomy in all domains except the capacity to learn. The level of willingness was at the highest level of the full scale ($\bar{x}$ = 4.01, SD = 0.82), followed by self-confidence ($\bar{x}$ = 3.79, SD = 0.55). Additionally, their level of motivation was high ($\bar{x}$ = 3.65, SD = 0.81), while the capacity to learn autonomously was at moderate level ($\bar{x}$ = 3.21, SD = 0.72). When the data gathered during the COVID-19 pandemic were analyzed, it can be stated that the participants had moderate and low levels of learner autonomy. The level of capacity to learn was at the highest level of the scale ($\bar{x}$ = 3.28, SD = 0.76), although it was at a moderate level, followed by self-confidence ($\bar{x}$ = 3.01, SD = 0.78). Furthermore, both the level of willingness ($\bar{x}$ = 2.18, SD = 0.39) and the level of motivation were at low level ($\bar{x}$ = 2.00, SD = 0.91).

When the *t*-test result of the willingness to learn autonomously for both groups was compared, there existed a significant difference between the participants (t: 4264 $p < 0.05$). This means that during the pandemic, the students' level of willingness was lower than before. The level of self-confidence was also compared and there existed a significant difference between the participants (t: 3816 $p < 0.05$). This means that during the pandemic, the students' level of self-confidence was lower than before. The *t*-test results regarding the level of motivation showed that there was a statistically significant difference between the groups (t: 4932 $p < 0.05$), which means that during the pandemic, the participants had a lower level of motivation than before. Finally, the significance level of the capacity to learn autonomously, 0.205 ($p < 0.05$), does not indicate a statistically significant difference between the groups.

3.2. Level of Language Learning Strategy Use

This section addresses the results of the study of the data gathered through the LLS scale. First, to show the level of LLS use by the participants, the means and standard deviation of each domain in the questionnaire were calculated. Even a *t*-test was used to compare the mean values of the two groups. The *t*-test compares the means of the level of LLS use before and during the COVID-19 pandemic. Regarding the categorization, the interval 1.0–2.4 is low, 2.5–3.4 is moderate, and 3.5–5.0 is a high degree of LLS use. Findings regarding the scores obtained from the LLS scale are presented in Table 3.

Table 3 shows that the total mean and standard deviation of the level of LLS use by preparatory school students before the pandemic was ($\bar{x}$ = 2.94, SD = 0.21) and during the pandemic, the total mean was $\bar{x}$ 2.58 and SD 0.68. According to the parameters, these ranges indicate a moderate level of LLS use. Thus, it can be claimed that the level of LLS use by the participants before and during the pandemic was at a moderate level. When both of the groups were compared by using a *t*-test, a significant difference between the levels of LLS use (t: −4121 $p < 0.05$) exists. This means that the participants used LLS more before the pandemic.

When the use of direct strategies was analyzed, it can be claimed that it was at the high level with a grand mean of 3.52 and Sd of 0.85 before the pandemic, while it was at the low level with a grand mean of 1.93 and Sd of 0.85 during the pandemic. Additionally, the results of the use of direct strategies revealed that before the pandemic, the participant students employed cognitive strategies as the largest proportion ($\bar{x}$ = 4.01 Sd = 0.32). The memory strategies ($\bar{x}$ = 3.98 Sd = 0.81) were used at the high level while compensation strategies were used at the moderate level ($\bar{x}$ = 2.59 Sd = 0.72). However, the data gathered

during the pandemic showed that the students used a low level of direct strategies ($\bar{x}$ = 1.93 Sd = 0.85). The compensation strategies ($\bar{x}$ = 1.78 Sd = 0.75), cognitive strategies ($\bar{x}$ = 2.00 Sd = 0.75), and memory strategies ($\bar{x}$ = 2.02 Sd = 0.75) were all used at the low level. When the *t*-test result of direct strategies of both groups was compared, a significant difference between the groups (t: −4927 *p* < 0.05) exists. This means that during the pandemic, the students' level of direct strategy use was lower than before.

Table 3. The strategy usage results before and during the pandemic.

Domain		Before Pandemic	During Pandemic	T	Sig.
(A) Direct	$\bar{x}$	3.52	1.93	−4927	0.000 *
	Sd	0.85	0.85		
	LLS use	high	low		
Memory	$\bar{x}$	3.98	2.02		
	Sd	0.81	0.75		
	LLS use	high	low		
Cognitive	$\bar{x}$	4.01	2.00		
	Sd	0.32	0.75		
	LLS use	high	low		
Compensation	$\bar{x}$	2.59	1.78		
	Sd	0.72	0.75		
	LLS use	moderate	low		
(B) Indirect	$\bar{x}$	2.36	3.07	−3316	0.000 *
	Sd	0.72	0.72		
	LLS use	moderate	moderate		
Metacognitive	$\bar{x}$	2.31	3.24		
	Sd	0.21	0.76		
	LLS use	low	moderate		
Affective	$\bar{x}$	1.96	3.02		
	Sd	0.72	0.91		
	LLS use	low	moderate		
Social	$\bar{x}$	2.76	2.95		
	Sd	0.23	0.78		
	LLS use	moderate	moderate		
Total	$\bar{x}$	2.94	2.58	−4121	0.00 *
	Sd	0.21	0.68		
	LLS use	moderate	moderate		

* *p* < 0.05.

The use of indirect strategies was also analyzed, and Table 3 indicates that both before and during the pandemic, the use of LLS was at the moderate level ($\bar{x}$ = 2.36 Sd = 0.72; $\bar{x}$ = 3.07 Sd = 0.72). Furthermore, the findings of the implementation of indirect strategies before the COVID-19 pandemic indicate that social strategies were used by the largest proportion of students ($\bar{x}$ 2.76 Sd = 0.23). Both metacognitive and affective strategies were used at the low level ($\bar{x}$ 2.31 Sd = 0.21; $\bar{x}$ 1.96 Sd = 0.72). On the other hand, during the COVID-19 pandemic, the strategies most employed were metacognitive ($\bar{x}$ 3.24 Sd = 0.76). Affective and social strategies were used at a moderate level ($\bar{x}$ 3.02 Sd = 0.91; $\bar{x}$ 2.95 Sd = 0.78). There was a significant difference between the groups when the *t*-test result of indirect strategies was evaluated (t: −4927 *p* < 0.05). This implies that the amount of indirect strategy used by students was higher during the pandemic than before.

3.3. Correlation of LLS Use and Learner Autonomy

Pearson's r-correlation analysis was employed for the last objective of this current research. Correlation analysis was performed to assess if the autonomy level and LLS use by the groups were statistically significant before and during the pandemic. With each group, the correlation study was carried out separately to assess how the relationship differed before and throughout the pandemic. Pearson r-correlation study findings for learner autonomy and the use of strategy are presented in Table 4.

Table 4. Correlation of learner autonomy and LLS use.

Sig.	L.A vs. LLS Use
Pearson's r before COVID-19	0.69 *
Pearson's r during COVID-19	0.81 *

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

The analysis of the Pearson r-correlation showed that, before the COVID-19 pandemic, the participants' level of learner autonomy and their use of LLS was reasonably positive, $r(155) = +0.69$, $p < 0.001$ two-tailed. With a focus on the other group, namely participants during the COVID-19 pandemic, the analysis of Pearson's r-correlation showed that the autonomy of participants and their LLS use were linked on a statistically significant level, $r(155) = +0.81$, $p < 0.001$ two-tailed.

Table 5 also presents the results of correlation analysis pertaining to the subdimensions of learner autonomy and LLS.

When the potential relationships between the subdimensions of learner autonomy and LLS use before COVID-19 are investigated, it is seen that significant positive correlations are observed between cognitive strategies and willingness ($r = 0.215$, $p < 0.05$ at a weak level), motivation ($r = 0.411$, $p < 0.05$ at a moderate level), and capacity ($r = 0.288$, $p < 0.05$ at a weak level), while the self-confidence dimension is correlated with compensation strategies ($r = 0.455$, $p < 0.05$ at a moderate level).

With reference to the relationships between learner autonomy and LLS use during COVID-19, it is seen that there is significant positive correlation between metacognitive strategies and all subdimensions of learner autonomy (willingness ($r = 0.212$, $p < 0.05$ at a weak level); self-confidence ($r = 0.416$, $p < 0.05$ at a moderate level); motivation ($r = 0.431$, $p < 0.05$ at a moderate level); and capacity ($r = 0.434$, $p < 0.05$ at a moderate level).

Table 5. Correlation between subdimensions of learner autonomy and LLS use.

		Willingness	Self-Confidence	Motivation	Capacity	Memory	Cognitive	Compensation	Metacognitive	Affective	Social
	Willingness	1	−0.205	0.400	0.085	0.101	0.215 *	−0.007	−0.251	−0.153	0.231
	Self-Confidence		1	0.150	0.270	0.202	0.102	0.455 *	0.511	0.407	0.255
	Motivation			1	0.432	0.116	0.411 *	0.387	0.167	−0.137	0.154
BEFORE COVID-19	Capacity				1	0.584	0.288 *	0.085	−0.009	0.584	0.021
	Memory					1	0.511	−0.187	−0.276	−0.232	−0.009
	Cognitive						1	0.143	−0.365	−0.256	−0.453
	Compensation							1	0.085	−0.004	−0.003
	Metacognitive								1	0.202	0.123
	Affective									1	0.490
	Social										1
	Willingness	1	0.234	0.401	0.432	0.112	0.342	0.009	0.212 *	0.321	0.211
	Self-Confidence		1	0.465	0.121	0.098	0.110	0.002	0.416 *	0.231	0.341
	Motivation			1	0.134	0.111	0.009	0.045	0.431 *	0.137	0.123
AFTER COVID-19	Capacity				1	0.121	0.098	0.076	0.434 *	0.076	0.065
	Memory					1	0.121	0.146	−0.121	−0.098	−0.089
	Cognitive						1	0.121	−0.002	−0.098	0.001
	Compensation							1	−0.121	−0.113	0.134
	Metacognitive								1	0.456	0.112
	Affective									1	0.121
	Social										1

* $p < 0.05$.

4. Discussion

The main aim of this study was to evaluate students' level of autonomy and their use of LLS before and during the COVID-19 pandemic. The students' autonomy levels were therefore first described, considering the pre- and post-COVID-19 pandemic. While participants' level of learner autonomy before the pandemic was high, during the pandemic it was moderate. This indicates that before the COVID-19 pandemic, the level of autonomy was higher. Although the motivational aspect is supposed to be higher during online learning, the reality does not correspond with the expectations. Although the dimension of motivation was on a high level before the pandemic, during the pandemic it was low. This may be because of the various educational facilities; as the students need to use English in class, they are more motivated in the face-to-face learning process. This study is in line with Dişlen's research, which also drew a similar conclusion [30]. In his study, he claimed that the moderately autonomous students were conscious to some degree of the notion of autonomy in their learning. In other words, the students noticed the value of autonomous learning. It seems, however, that they presumably were all seeking teacher help since they were all used to traditional methods of teaching. On the other hand, the findings of this study were not in line with Dokuz [31] and Fazey and Fazey's studies [32]. In their studies, they claimed that the learners were more inclined to believe in their own abilities to learn something independently of instructors and peers. They had the potential to study independently outside of the classroom. Additionally, Scharle and Szabo [33] found that only when students were given the opportunity to demonstrate their own potential in their learning process, rather than passively absorbing ready-made material from a superior authority, could they achieve autonomy. This finding was also not parallel to the findings of our study.

Regarding learner autonomy, it can also be stated that participants had a high degree of autonomy in all fields before the COVID-19 except for the capacity to learn. The level of willingness and self-confidence were at the highest level of all scales. Once data collected during the COVID-19 emergence were analyzed, a moderate and low level of learner autonomy was identified for the students. The level of learning capacity and self-confidence were at the highest level. Additionally, the motivation level and willingness were both low. Therefore, it can be claimed that during the pandemic, the students' level of willingness, self-confidence, and motivation were lower than before. These findings are not parallel to the findings of Zhong [34]. In his study, he claimed that the students that were educated online were more successful and able to regulate their self-directed studies. Additionally, the findings of our study are not in line with Yıldırım's study [35]. He indicated that during online training, the students appeared to take more responsibility for their learning and many felt that their failure or performance had been the key factors. However, Sönmez's study supports our findings by stating that it was found that the concept of learner autonomy differs with different cases in terms of student responsibility [36]. Briefly, the results indicated that the participating students were moderately autonomous and varied in various domains of the concept during online education. The students were also well aware of the idea of autonomous learning, but they had to take some actions to accomplish their learning autonomously. In this respect, moreover, the results of the current study are found to be parallel to previous studies carried out in the field [34,36]. In their studies, they also stated that the students already knew about autonomous learning, but they had to take steps to complete their learning independently.

After identifying the level of learner autonomy, LLS use before and during the pandemic were also examined. When the literature was examined, it was found that there were many studies conducted on language learning strategies [37]. In this study, it was found that the level of LLS use before and during the pandemic was at a moderate level; however, the students used LLS more before the pandemic. While the use of direct strategies was high with the highest use of cognitive strategies before the pandemic, it was at a low level during online education. This finding is in line with previous studies conducted by Samaie et al. [38] and White [39]. Additionally, indirect strategies were used at a moderate

level both before and during the pandemic; however, the amount of indirect strategy used by students was higher during the pandemic than before. While social strategies were used more before the pandemic, after its spread, students preferred to use metacognitive strategies. This result is in line with many studies in the literature [40–44]. However, this result does not concur with Liu's [45] study, which indicated that the most frequently used LLS was compensation strategies.

Depending on the variations of the strategies used for language learning, it can be claimed that the learning environment, both traditional and online learning, is important. The results of LLS use in advance of the pandemic could represent the way of teaching. Since they made the most use of cognitive strategies, it was about how they constructed their way of learning, by practicing, analyzing, deductively reasoning, conveying ideas, summarizing, and emphasizing the need. Since the curriculum allows the students to consider their way instead of guiding them in a restricted way, this enables the students to consider their learning process.

According to the differences in LLS use, the process of the participants' learning is reflected for both face-to-face and in online learning environments. The result of LLS use before the pandemic reflects the way they were taught. Based on their highest use of cognitive strategy, how they conduct practice, analyze or reason from their method of learning, transfer the idea, summarize the lesson, and stress the need, are all reflected. Since students need to reflect on their path rather than lead it in a limited way through the international curriculum, they are expected to be encouraged to consider the process of learning. The use of indirect strategies, particularly social strategies, was also high before the pandemic. Students used direct strategies instead of indirect ones because their linguistic mechanism was directly affected.

In addition, language professors should also accustom their students to these strategies in maintaining the application of LLS to allow them to automatically use the strategies during the language learning process. LLSs are visible, as they are able to learn, and allow students to be lifelong learners. This concept also coincides with how autonomy works for learners. Thus, the students can establish their way and eventually become self-reliant students using appropriate methods. On the other hand, students used mostly metacognitive strategies during the pandemic, since they had little chance for English interaction, as expected. Our study may be used to help teachers think about the ways of teaching language learning strategies to their students or to prove that their students are autonomous.

Finally, the relationship between preparatory school students' level of learner autonomy and LLS use before and during the COVID-19 pandemic was analyzed using correlation analysis. The analysis of relevant data indicated that there is a positive and linear relationship between the participants' level of learner autonomy and their use of LLS. This finding is parallel to the previous findings [28,38]. Additionally, the relationships between the subdimensions of learner autonomy and LLS use were investigated before COVID-19; it was seen that significant positive correlations were observed between cognitive strategies and subdimensions of learner autonomy, except for the self-confidence dimension. During COVID-19, significant positive correlations were observed between metacognitive strategies and all subdimensions of learner autonomy.

5. Conclusions

This study indicates that after the sudden outbreak of the COVID-19, online learning was implemented to keep the learners involved in the learning process. The only way to help them participate in this process was to encourage them to use language learning strategies and became autonomous learners. Online learning offers students an outstanding opportunity to find online resources in English language learning. Electronic books, photographs, recordings, or other conversation materials are used to access learning opportunities. As a result, online learning can be considered as an opportunity that results from these facilities.

The current study identifies both empirical and practical implications for preparatory school classes. First and foremost, it is stated in this study that instructors must take specific efforts to train their students to become more autonomous learners during online courses, since they are already aware of the necessity of learner autonomy but require more practical developments. It can be suggested that during both conventional and online education, instructors and curricula should allow students to rely more on themselves. This study revealed that students are moderately self-reliant during online education and can improve themselves more if they are assisted by the instructors. As a result, it is the instructors' obligation to assist their students in becoming more self-sufficient in their learning. This may result in more productive and effective education, making it more valuable for both instructors and students.

As far as the outcomes of students' language learning strategies are concerned, the study found that students used a medium proportion of LLS. EFL instructors should take LLS into account and teach their learners the appropriate strategies. It is also great to motivate students to use all the strategies, so the students can foster self-confidence and positive incentives, as effective strategies can help students cope with difficulties. Similar to the idea of autonomy, it is critical to encourage the use of more language learning strategies, since it appears that successful learners utilize the strategies substantially more. Furthermore, because they are interconnected, utilizing more strategies may result in more autonomous learners.

However, there are two research limitations that need be addressed. These limitations originate from the difficulties of quantifying the idea of autonomy as well as the study's small sample size. Autonomy is not a tangible concept, therefore recognizing autonomy through a single questionnaire may not be sufficient for a comprehensive understanding. Furthermore, because the study's environment is confined to students at a preparatory school of a public institution, the sample size is quite small. As a result, the findings may vary if the subjects had been drawn from different contexts.

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