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Psychosocial learning environments: EFL learners' voices during a pandemic

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ABSTRACT

The aim of this study was to investigate university students' psychosocial apperceptions between face-to-face and emergency remote learning environments they experienced in the same academic term during the 2019-nCoV (coronavirus) pandemic of 2020. Utilizing a mixed methods study design, our investigation involved quantitative data collection with the DELES-TR instrument, followed by online focus group interviews with questions derived from the survey results to gain a deeper understanding of students' perspectives of both educational environments. English as a Foreign Language students (*N*=687) from Çanakkale Onsekiz Mart University, Turkey participated in the study. The results indicated that students preferred the face-to-face environment over emergency remote learning due to difficulty in communication with instructors and peers and requiring students to take an active, responsible, and accountable role in their own learning in the remote learning environment.

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1. Introduction

Like many other countries under the threat of pandemic in early 2020, Turkey shifted to emergency remote learning with the aim of keeping both students and faculty safe. However, the hastily developed emergency remote learning experience, offered as a part of general precautions taken for the public health, was distinctive from well-planned online learning experiences since the administrators, instructors, and students were not prepared for emergency remote teaching (Hodges et al., 2020). Exceptionally, the students had to experience both face-to-face and remote education in one single academic term. Due to the nature of this unprecedented circumstance, we were without previous psychosocial learning environments research on which to fall back or review at the onset of this investigation, as affirmed by Hagedorn et al. (2022). However, the situation enabled us to make a comparison between these two modes of learning; face-to-face and remote. Through in-depth analyses of both quantitative and qualitative data, this study provides evidence from students' voices to the question whether the shift from in-class learning to emergency remote learning during the COVID-19 crisis worked for students or not, and to what extent.

1.1. School Closures and Sequestration during Crisis Events

School closures during crisis events are nothing new. For instance, in the 14thcentury the Black Death infected students and teachers at Winchester Grammar School in Oxford, England, closing the

school (Boothman & Cook, 2012). The 1918 "Spanish Flu" influenza virus closed schools in Sweden (Holtenius & Gillman, 2014) and elsewhere. Similarly, other crises have impacted instruction and have caused need for rapid instructional modifications. For example, in Hungary "…in the last two school years of World War II, many students did not attend school for more than 5 months…" (Illéyi, 2020, para. 1). Rather, teachers who were not defending the country were guided to use "circular letters"—letters from teachers to students, then back to teachers—to keep in communication with their students (Hungarian Spectrum, 2020, para. 5). An earlier societal crisis caused a rapid shift from face-to-face learning to distance education. During World War I the French Ministry of Education quickly shifted to distance learning by forming the *Centre National d'Enseignement à Distance* (CNED) in 1939 to educate children whose schools had closed due to the war (Holmberg, 2008).

1.2. School Closures and Rapid Shifts in Education During the 2020 Coronavirus Pandemic

School systems in China began to close as early as February 8, 2020, due to the outbreak of what we now know as the 2019-nCoV (novel coronavirus) (CDC, 2020). By March 31, 2020, most school systems around the world, including tertiary-level schools, were closed, affecting over 1.6 billion learners (UNESCO, 2020)—an unprecedented number of students, their instructors, administrators, and support staff. Turkey experienced a nationwide school shutdown on March 16, 2020, impacting over 24.9 million students, 7.2 million (28.9%) of those students were post-secondary level learners (UNESCO, 2020). By March 23, Turkey's Ministry of Education began teaching primary and secondary education online and through the Education Information Network television (Turkish Ministry of Education, 2020). However, unlike primary and secondary schools, universities in Turkey had to resort to continuing the school year on their own accord. Like much of the rest of the world, Turkish universities rapidly shifted to emergency remote learning rather than ending the academic year unfinished. One Turkish university, Çanakkale Onsekiz Mart University (ÇOMÜ), began offering coursework in synchronous and asynchronous formats on March 30, 2020, where the synchronous lessons were conducted via Microsoft Teams (SonDakika.com, 2020). Unlike school closures due to long-term crisis events in previous centuries, post-secondary education relied heavily on technology to finish out the academic year in early 2020.

1.3. Remote Education Learning Environments

In this paper we distinguish between *emergency remote* learning and *distance/online* learning. Distance education has a substantially long history interceded by online learning at a distance that involves web-based digital tools and learning environments. In many higher education settings, distance learning has strong support and has become an institutionally embedded standard of higher education. Emergency remote learning, on the other hand, was a result of a sudden shift midway through the first term of 2020. This was a crisis-driven higher education situation that involved a rapid shift from face-to-face classes to classes reliant on synchronous digital tools and environments most higher education instructors were not prepared for or even interested in participating (Craig, 2020; Hodges et al., 2020). Likewise, in the emergency remote learning scenario, students who were enrolled in face-to-face classes at the beginning of the 2020 academic year were also not prepared, necessarily interested in, or adept at learning through synchronous and asynchronous digital environments.

The focus of this paper is concerned with students' apperceptions-making sense of a new experience by assimilating it with prior experience-of the psychosocial environment initiated by the sudden shift to emergency remote learning.

1.4. Psychosocial Learning Environments

The history of inquiry into psychosocial learning environments reaches back to the 1970s with Anderson and Walberg (1974), and Moos (1976). Moos noted that "the growth of new institutional environments has increased the need for accurate descriptions of these environments." He expanded that notion by stating, "…currently available descriptions of social environments are inadequate. The environment is usually described as it is seen by a small and unrepresentative sample of the people in it… In addition, no 'feel' of how the environment actually functions is provided" (Moos, 1976, p. 351).

Moos' declaration concerning new institutional environments was just as relevant in the 2020 pandemic-fueled learning milieu as it was five decades ago.

Psychosocial environments are durable human ecology qualities that give social spaces their vulnerability and strengths. Moos outlined this social ecosystem as having three enduring dimensions of: (1) relationship, (2) personal growth, and (3) system maintenance and change (Moos, 1974, 2002). These dimensions tend to be preserved in the settings in which we find ourselves, including educational environments. Further, these dimensions are "highly salient for the people who live and work in them…and profoundly influence their morale and behavior" (Moos, 1996, p. 194).

In terms of psychosocial *learning* environments, there are positive links between the environment and student outcomes, where positive student perceptions of their learning environment tend to support positive student outcomes (Fraser, 2018). Thus, by measuring the extent to which students perceive relationships, personal growth, and system maintenance and change in the classroom, we can learn a lot about the potential for positive student outcomes and work to adjust learning environment dimensions in order to support students in the short term and "…to develop better theories about environments' underlying patterns and dynamics" (Moos, 1996, p. 195) in the longer term.

Measurement of psychosocial learning environments has a 30-year history and is often investigated using survey instruments to gauge students' first-hand perceptions of their environment. Student viewpoints are strong indicators of their learning environment given that they themselves are experts in learning environments, having spent over "20,000 hours" as learners in a variety of learning environments by the time they complete a university degree (Fraser, 2018, p. 2).

While research on psychosocial learning environments have focused on learner perceptions about using such educational settings, this study differs from previous research in that it aims to understand the change in learners' opinions about learning English by using both physical (face-to-face) and emergency remote learning during the same academic term. On the other hand, the majority of the related research try to provide conceptualizations of the relationship between both modes of learning. However, most of them fail to make comparisons by focusing either on physical or psychosocial learning environments (Baars et al., 2021). This study also establishes comparisons of the two learning environments by focusing on various sub-dimensions namely, instructor support, student interaction, collaboration, personal relevance, authentic learning, active learning, and student autonomy (Hagedorn et al., 2022).

The present study also differs from previous research on psychosocial learning environments since it covers several student and teacher related factors. While previous research has also provided several findings for learner psychology (Olawale et al., 2021), learner experiences (Oliveira et al., 2021), and general psychological impacts of distance teaching (Romeo et al., 2021), this study is significant in providing findings by focusing on several aspects of psychosocial learning environments in a single study.

1.5. Aim of this Study

The aim of this study was to quantitatively and qualitatively ascertain students' psychosocial learning environment apperceptions during a pandemic. We investigated students' views of their face-to-face learning environment and the same students' views after the shift to emergency remote learning using a validated survey instrument. Using an economical and efficient survey instrument offered insight related to a broad picture of the extent of "what" students perceived. We followed the quantitative study (Phase I) with a set of focus group interviews (Phase II) of a sample of the same students in order to gain a more nuanced student perspective of "why" they perceived what they did.

The contributions of our study are the (1) demonstration of applied mixed-methods research to give voice to students through focus groups, to (2) demonstrate a method of rapidly gathering psychosocial perspectives from a representative sample of a large student body for practical relevance in the institute.

For the quantitative phase of our study, we worked from the hypothesis that students would perceive the remote class psychosocial learning environment less favorable than the face-to-face learning environment. Because we estimated that owing to the sudden shift from face-to-face-to learning to emergency remote learning, the instructors would have difficulty in modifying the new learning environment in terms of teaching materials, methods, and online teaching skills which in turn would create an obstacle for establishing an efficient learning environment.

Immediately following the shift to emergency remote teaching the institution organized online meetings for the instructors on topics such as the effective use of the online teaching platform, designing materials for online use, and outlining methods for assessment. Specifically, for the English as a Foreign Language course, the School of Foreign Languages provided the content of the course textbook, implemented the use of Microsoft Teams, and reframed the class in a more simplified version since many of the students were relying on their smartphones to participate in the class.

2. Method

To analyze students' apperceptions regarding psychosocial learning environment characteristics between face-to-face and emergency remote learning during the 2020 global 2019-nCoV pandemic, we gathered quantitative and qualitative data from students at Çanakkale Onsekiz Mart University in Çanakkale, Turkey. Our investigation utilized a mixed methods study design that involved quantitative data collection with a survey instrument followed by interviews of students with questions derived from the survey results. The sections below outline each of the two phases of the study.

2.1. Instruments

2.1.1. Phase I Quantitative Study: Survey Instrument

For the quantitative data collection phase of our study, we administered a modified version of the Turkish language *Distance Education Learning Environments Survey* (DELES-TR) which is a 34-item psychosocial learning environment instrument designed specifically to measure university students' apperceptions about the distance education learning environment in which they are immersed (Author, 2020). The original English-language DELES has six psychosocial scales: *Instructor Support* (8 items), *Student Interaction and Collaboration* (6 items), *Personal Relevance* (7 items), *Authentic Learning* (5 items), *Active Learning* (3 items), and *Student Autonomy* (5 items) (see Table 1). The response choices were: 1 = *Never*, 2 = *Seldom*, 3 = *Sometimes*, 4 = *Often*, and 5 = *Always*.

Participants were asked, using the modified DELES-TR administered online via Qualtrics Core XM (2020), to provide responses to each of 34 items for the pre-pandemic face-to-face context of their class and then the emergency remote learning context in which they experienced after the university shifted to emergency remote learning. Hence, the survey included 68 psychosocial items in total, not including demographic items. Sample items that were piloted with a small group of students prior to the study (N=170), read as (translated to English):

In this class, during…

1a. Classroom learning: When I have a question, the teacher devotes enough time to answer.

1b. Emergency remote learning: When I have a question, the teacher devotes enough time to answer.

Each item utilized the five-point response scale of the original DELES, thereby resulting in one 34-itemdata set related to the pre-pandemic face-to-face version of the class and a second 34-item data set related to class experience during emergency remote learning, allowing for a comparative analysis of students' perceptions of the two learning environments for the same class with the same instructor.

2.1.2. Survey Population

Our sample frame was the entire population of all freshman students enrolled in 117 English as a Foreign Language (EFL) classes in ÇOMÜ during the spring 2020 semester when the 2019-nCoV pandemic occurred. As a part of the measures taken for the pandemic, after five weeks of face-to-face education, the EFL course was migrated to a combination synchronous and asynchronous emergency remote learning format. We administered the instrument six weeks after the shift to remote teaching while students were still taking their classes. The EFL class population was estimated at 6,200 students. Thus, to achieve a probability sample with a 95% confidence level and 5% confidence interval, we aimed to collect survey responses from a minimum of 362 students.

Table 1. DELES Scales, Descriptions, and Items in Relation to Moos' Social Ecology Dimensions

Moos' Dimension	Scale	Scale Description	Items
Relationship – Individuals are involved in the environment and support/help each other; personal relationships between inhabitants; involvement, affiliation, support, assistance, peer cohesion	Instructor Support	Extent to which an instructor is approachable and responds quickly with feedback	8
	Student Interaction & Collaboration	Extent to which students have opportunities to interact with one another, exchange information and engage in collaboration	6
Personal Development – Opportunity afforded by the environment for self-enhancement and development of self-esteem; personal growth and development; autonomy, independence, intellectuality, academic achievement, competition	Personal Relevance	Relationship between students' out-of-school experience and their classroom experience	7
	Authentic Learning	Extent to which students have the opportunity to solve real-world problems that are authentic	5
	Active Learning	Extent to which students have the opportunity take an active role in their learning	3
System Maintenance & Change – The environment is orderly, clear in expectation, control, responsive to change, order, organization, clarity, control	Student Autonomy	Extent to which students have opportunities to initiate ideas and make their own learning decisions, and the locus of control is student oriented	5

(Walker, 2020)

2.1.3. Phase II Qualitative Study: Focus Group Interviews

In addition to the quantitative data collection, we conducted online focus groups of survey participants using a stratified purposeful sampling approach. We used focus group interviews since they establish a natural environment for discussion in contrast to single interviews (Krueger& Casey, 2000) and provide further interpretation of survey results (Merton, 1987). We organized three groups of four students each for triangulation purposes and to avoid groupthink (Hennink, 2014; Ruiz, 2017).

The focus group questions were based on the results of our quantitative survey comparison of means analysis arranged by DELES-TR scales to facilitate organization and comparison. Three 45 to 60-minute interviews were recorded and transcribed in order to allow for a content analysis using QDA Miner 4 Lite (2020) and to identify themes and categories (Miles et al., 2014).

3. Findings

This section outlines our two-phase study, presenting the quantitative results first, followed by the qualitative results. We developed customized qualitative items and sampling based on the results of the DELES-TR instrument administration.

3.1. Phase I Quantitative Study: Survey Instrument Results

We distributed the instrument to approximately 4,000 students and received 933 DELES-TR responses (23%) during a one-week administration period and analyzed those data using JASP 12.2 (2020). Of those responses 687(73.6%) were complete and usable. Most of the non-usable responses followed a partial non-response pattern, likely the result of respondent fatigue due to the nature of a 68-item survey where the mean response time was slightly over 10 minutes.

3.1.1. Demographics Results

Of the population sampled, 261 students were male (38%) and 426 were female (62%). The mean student age was 20 years old in a range of 18 years old to 45 years old. We determined that 56% of the students accessed the emergency remote learning portion of their class by smartphone, followed by 31% using a computer to access the class. The remainder used a tablet device or a combination of devices.

3.1.2. Validity and Reliability Results

Considering that we applied the DELES-TR in a non-standard manner—usually it is administered to collect psychosocial learning environments perceptions of 100% distance education classes—we conducted exploratory factor analysis to determine if the a priori scales held up in this unique situation. We treated the data as two subsets: one pre-pandemic face-to-face class subset and the other during-pandemic emergency remote learning subset. We refer to these subsets here as Before and After data.

The Kaiser-Meyer-Olkin (KMO) Test of sampling adequacy for the Before-data subset was 0.89, while the Bartlett's Sphericity Test resulted inp<.001. Similarly, the After-data subset also proved adequate (KMO=0.95, Bartlett's Sphericity Test p<.001).

Factor loadings for the face-to-face class portion (Before subset) demonstrated strong a priori loads (0.57 to 0.78) on the scale of Instructor Support and scale of Student Interaction & Collaboration. However, the scales of Personal Relevance and Authentic Learning did not support the a priori model and loaded strong on the same factor (0.57 to 0.74). Likewise, data for the scales of Active Learning and Student Autonomy loaded strong as one factor (0.53 to 0.71).

Correspondingly, factor loadings for the emergency remote learning portion of the class (After subset) also demonstrated strong a priori loading (0.65 to 0.80) on the scale of Instructor Support and scale of Student Interaction & Collaboration; similarly, the scales of Personal Relevance and Authentic Learning loaded high on the same factor (0.56 to 0.70), diverging from the a priori structure. Comparably, data for the scales of Active Learning and Student Autonomy loaded strong as one factor (0.60 to 0.76). Thus, for the remaining analyses and the qualitative design we combined scales as presented in Table 2.

Reliability of our refined DELES-TR was strong using Cronbach's alpha coefficient as the measure. Coefficients ranged from 0.87 to 0.96 across scales (see Table 2) and was calculated as .96 for the entire data set (Before subset α=0.95, After subset α=0.97).

Table 2. Cronbach's Alpha Coefficients by Scale

Revised DELES-TR Scales	Number of Items	α
Instructor Support before	8	.91
Instructor Support after	8	.93
Student Interaction & Collaboration before	6	.91
Student Interaction & Collaboration after	6	.92
Personal Relevance + Authentic Learning before	12	.94
Personal Relevance + Authentic Learning after	12	.96
Active Learning + Student Autonomy before	8	.87
Active Learning + Student Autonomy after	8	.91

N=687

3.1.3. Comparison of Means Results

In order to investigate the hypothesis that students would perceive the emergency remote learning psychosocial learning environment less favorable than the face-to-face learning environment we conducted a comparison of means analysis using a paired-samples *t*-test and descriptive analyses using the revised scales of the DELES-TR. The data subsets were normal where in the *Before* subset M = 3.8, Mdn = 3.8, RKU = -0.11, skewness = -0.34 and in the *After* subset M = 3.2, Mdn = 3.3, RKU = -0.63, skewness = -0.14. As presented in Table 3, there is a drop in mean for each before/after scale were 1 = *Never*, 2 = *Seldom*, 3 = *Sometimes*, 4 = *Often*, and 5 = *Always*. The correlation between scale subsets was positive, significant, and strong with the exception of the Active Learning + Autonomy scale, which also has the least difference in means.

We conducted a paired-samples t-test to compare the before and after means on the four scales of the modified DELES-TR. There was a significant difference in the means for all subscales as presented in Table 4. The t-test results demonstrate that shifting from a face-to-face learning environment to an emergency remote learning environment resulted in students viewing the face-to-face psychosocial learning environment more favorably than they did the resulting emergency remote learning environment.

Table 3. Means, Standard Deviations, Correlations, and Significance by Scale

Revised DELES-TR Scales	*M*	[redacted]	SD	*r*	*p*
Instructor Support before	4.13	.54	0.23	.86	.006
Instructor Support after	3.59		0.30		
Student Interaction & Collaboration before	3.32	.77	0.21	.98	.000
Student Interaction & Collaboration after	2.55		0.24		
Personal Relevance + Authentic Learning before	3.76	.75	0.16	.72	.008
Personal Relevance + Authentic Learning after	3.01		0.15		
Active Learning + Student Autonomy before	3.99	.38	0.16	.54	.163
Active Learning + Student Autonomy after	3.61		0.15		

N=687

Table 4. Results of a Paired-Samples T-Test

Revised Scales	*M*	SD	*SEM*	Lower	Upper	*t*	*df*	*p*
Instructor Support	0.54	0.16	0.06	0.4	0.67	9.51	7	.000
Student Interaction & Collaboration	0.77	0.05	0.02	0.71	0.82	36.37	5	.000
Personal Relevance & Authentic Learning	0.75	0.12	0.03	0.68	0.82	22.25	11	.000
Active Learning & Student Autonomy	0.38	0.15	0.05	0.25	0.5	7.13	7	.000

N=687, *p* = two tailed.

Overall, after data analyses, we reduced the original DELES-TR scales from six to four and determined good instrument and scale reliability. Comparison of means data suggest a drop in students' apperceptions of their English as a Foreign Language class learning environment when it shifted from face-to-face to remote as visualized in Figure 1. Instructor Support had the strongest *Before* mean (4.13, *Often* occurring) and remained relatively strong after shifting to emergency remote learning (*M*=3.59, just above *Sometimes* occurring). In contrast, Student Interaction and Collaboration was low to begin with (*M*=3.32, *Sometimes* occurring) and fell even lower (*M*=2.55, just above *Seldom* occurring) during emergency remote learning. The least difference in means was that occurring on the scale of Active Learning + Student Autonomy (*Before M*=3.99, *Often*; *After M*=3.61, nearly *Often* occurring).

1.6. Phase II Qualitative Method: Interviews

This section presents findings of the qualitative analysis based on focus group interviews in accordance with each scale of the modified DELES-TR. Each section provides existing links between the *t*-test results obtained from the survey data and the themes and categories obtained from the analysis of the focus group interviews.

Question 1: What are the differences between face-to-face and emergency remote learning regarding instructor support?

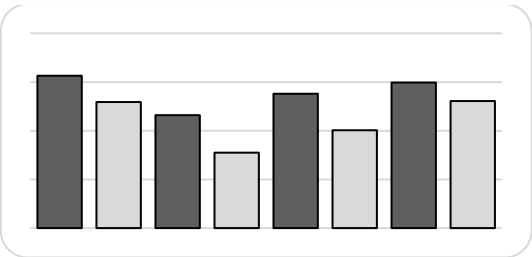

Fig. 1. Means of the modified DELES-TR Scale data before and after subsets.

The results of the content analysis with reference to the first question had the most input and revealed eight different themes under four main categories (see Table 5). These categories are interaction with instructors, communication problems, technical problems, and lack of motivation.

Table 5. Categories and Themes for Responses to Question 1

Category	Theme	Description	Count	Frequency
Interaction with instructors	gestures and body language	Students understand better when they observe (see) instructors teaching in the classroom.	7	11.1%
	feeling away from instructors	Remote education feels like learners are not close to instructors.	7	11.1%
	eye contact with instructors	Students learn better when they have eye contact with instructors in the classroom.	9	14.3%
Communication problems	hard to communicate	Students think that remote education is not an easy way to communicate with instructors.	7	11.1%
	hesitate for communication	Students think participating in remote learning might interrupt the lesson due to time limitations.	13	20.6%
Technical problems	internet connection problems	Students cannot follow the online classes because of internet problems.	4	6.3%
Lack of motivation	demotivated instructors	Instructors are less motivated in remote education when compared to face-to-face education.	5	7.9%
	demotivated learners	Learners think remote learning is not motivating.	11	17.5%

The first category, "interaction with instructors" includes three main themes, namely gestures and body language, feeling distant from instructors, and eye contact with instructors. Findings suggest that a remarkable number of the participants provided responses that included expressions, pointing out the importance of observing the instructors in the classroom as they were teaching (*f*=16). Students emphasized the importance of seeing the instructor in the classroom during face-to-face learning. However, many believed the lack of eye contact and physical interaction in the remote education environment as obstacles to learning and mutual understanding.

> ***S:*** *"…when we were in the classroom, the instructors were able to get feedback from our eyes, gestures, and mimics. But in emergency remote learning most of the students do not turn their webcams on. However, in face-to-face learning, you cannot hide your facial expressions. It is easier both for the students and the instructors to understand each other with physical support".*

Interestingly, very few participants (*f*=4) reported their Internet connection problems as a hindrance for getting instructor support in emergency remote learning. However, in the few cases where they did have difficulty, they seemed to "check out" of learning.

> ***B:*** *"…during online classes the Internet quality gets weaker and I have to close the video stream and only have the chance to listen to the instructor. However, sometimes it is even worse. I find myself disconnected from the class. This is so annoying that I do not even try to reconnect to the team".*

Additionally, some of the participants (*f*=20) stated that they found it hard to communicate in the emergency remote learning environment and they avoided asking questions or making comments due

to time limitations. According to the participants, it is also clear that both the learners and the instructors were less motivated to communicate compared to the face-to-face educational environment (*f*=16).

Question 2: What are the differences between face-to-face and emergency remote learning regarding student communication and collaboration?

The analysis addressing the second question revealed five different themes under two main categories (see Table 6). These categories were socialization (*f*=16) and student collaboration (*f*=13).

Table 6. Categories and Themes for Responses to Question 2

Category	Theme	Description	Count	Frequency
Socialization	no social time with friends	Students are not happy with remote learning since they cannot meet their friends.	6	20.7%
	less communication with friends	Students have less communication with their classmates during remote education.	7	24.1%
	less fun	Students do not enjoy remote education.	3	10.3%
Student collaboration	ineffective collaboration	Students believe that online collaboration is not effective and is time consuming.	10	34.3%
	less opportunity for collaboration	Students think they have less opportunity for collaboration in remote learning.	3	10.3%

For the socialization category, the participants' arguments mostly focused on the social aspect of face-to-face learning (*f*=16). Most of the participants complained about lack of social contact with peers during remote education. Since they do not have the opportunity to meet their friends, they think it is not as fun of a way of learning.

> ***M:*** *"...I can still ask questions to my friends by using Whatsapp. However, that is not the point. We cannot meet and chat anymore. We used to go to social places together before, but unfortunately, we don't have that chance in emergency remote learning".*

The participants also reported similar complaints about remote collaboration (*f*=13). They believed that although there are several means of communication available, none of them are as effective as face-to-face collaboration and trying to learn from others is time consuming when they are remote.

> ***K:*** *"...when we had face-to-face interaction, information exchange was much faster. As we were discussing a problem, others could contribute and share their ideas, so we were able to find quick solutions. Also, we used to gather for doing assignments and projects at the library. However, things are harder in emergency remote learning. You cannot get answers to your questions all the time. When we were at school, we could collaborate more effectively and solve our problems with the help of others".*

Question 3: What are the differences between face-to-face and emergency remote learning regarding personal relevance and authentic learning?

The results of the analysis related to the third question revealed four different themes under two main categories namely authentic learning (*f*=16), and personal relevance (*f*=8) (see Table 7).

The analysis revealed (*f*=16) students' criticism of remote education for not being a genuine learning experience. In general, they stated that emergency remote learning failed in offering language practice opportunities such as interactive classroom activities, pair work, and role playing—an issue related to instruction rather than delivery mode. As a result, they considered remote education as an unreal way of language learning since they have less opportunity to use and practice the foreign language they learn.

A: *"…learning English in the classroom was what I would prefer. Because, we were able to use English in the classroom by the help of role-play activities. In remote education, we didn't have any pair or group work activities. I think this is not a realistic way of learning a foreign language. Languages are best learnt with interaction".*

Table 7. Categories and Themes for Responses to Question 3

Category	Theme	Description	Count	Frequency
Authentic learning	not an active way of language learning	Interactive classroom activities cannot be performed in remote education.	4	16.7%
	no practical application	Students cannot practice what they learn in remote learning.	5	20.8%
	no real learning	Remote learning does not feel like real learning.	7	29.2%
Personal relevance	less sharing of experiences	Less opportunity for transferring their experiences into remote classes.	8	33.3%

As for the personal relevance category, the participants reported that they thought sharing their experiences or their prior knowledge during remote classes was irrelevant since it might be time consuming or not suitable for an emergency remote learning setting.

B: *"…when we were learning in the classroom, we had more chances of giving examples or mentioning something relevant to the topic. However, in [remote] classes I feel that giving extra information based on my prior knowledge would not be suitable and even time consuming. We have limited time and I feel like I would bother others if I take extra turns. As a result, I stay silent instead of making a contribution to the lesson".*

Question 4: What are the differences between face-to-face and emergency remote learning regarding active learning and student autonomy?

The analysis addressing the fourth question revealed three different themes under two main categories (see Table 8). These categories were active learning (*f*=4) and student autonomy (*f*=16).

Table 8. Categories and Themes for Responses to Question 4

Category	Theme	Description	Count	Frequency
Active learning	opportunity for active learning	Students believe remote education supports active learning since they are on their own.	4	20%
Student autonomy	not suitable for my approach to learning	The flexible schedule of classes is not suitable for some students' approaches to learning since they feel like they have less control on their learning.	9	45%
	requires much responsibility	Students think they are more responsible for their own learning in remote learning.	7	35%

It is interesting to note that the participants commented in favor of emergency remote learning only for the active learning category. Some of the participants believed that remote education supported active learning since they were on their own and actively solved their own problems. According to those participants, emergency remote learning led them to become more involved and responsible for their learning when compared to the face-to-face learning environment.

A: *"I never felt myself active in the classroom. Because, there was someone asking or answering the questions, taking notes, or helping on assignments. However, in emergency*

remote learning you don't have these advantages since you are in front of the screen on your own. It didn't take too long for me to realize that I would fail if I did not become active".

Similarly, the participants had the idea that emergency remote learning required a good deal of learner responsibility when compared with in-class learning. Some participants used the word "responsibility" in a negative sense while others used it as something positive that referred to their self-efficacy and being a better learner.

F:*"When we were in the classroom, we could ask instant questions to our friends and instructors easily. But now it is not always possible to find someone to help from home. This led me to try hard to find my own answers by doing research on the Web. I feel more responsibility about my own learning, and I believe I am doing well so far. I feel more confident about my capacity to learn something by myself".*

Additionally, the majority of the students (*f*=9) in this category reported emergency remote learning as unsuitable for their learning approaches since they felt as if they lost the control of their learning.

S:*"I am kind of a student who prefers to keep control of his learning by planning his time. During face-to-face learning this was easy because we had a fixed weekly program and we could plan the rest of the day according to that. However, in [remote] learning, our program is flexible and depends mostly on the availability of the teachers. I find this quite demotivating for individual study. I feel like I have lost the control of my own learning".*

Almost all the participants' apperceptions related to remote education were negative. Many found it exhausting to spend a long time in front of their screen, even though the average time this age group spends online is more than seven hours per day (Phipps et al., 2020). As a new psychosocial learning environment, they were pessimistic, even about some of the advantages of emergency remote learning such as the opportunity to watch recorded class videos at their leisure. They thought that being able to watch the content as a recorded video at any time made them less thoughtful during remote classes and demotivated them to actively take notes, which they were doing in face-to-face classes.

4. Discussion

With no contemporary investigations of pandemic induced rapid shifts in global education upon which to rely at the onset of our study (Hagedorn et al. 2022), aside from non-peer reviewed situational descriptions such as those of Craig (2020) and Hodges et al. (2020), we had no psychosocial learning environments research to compare or contrast our work prior to our study. Therefore, we relied upon well-established qualitative (ex. Krueger & Casey, 2000; Merton, 1987, Ruiz, 2017) and quantitative (ex. Anderson & Walberg, 1974; Fraser, 2018, Moos, 1976, 1996) methods to investigate the situation at hand. However, post research several studies emerged and could be categorized into these broad, semi-related categories: student stress and wellness (Co et al., 2021; Olawale et al., 2021), teacher affect (Zou et al., 2021), general exploratory student experience investigations (Hagedorn et al., 2022; Oliveira et al., 2021; McMaughan et al., 2021), and general psychosocial impacts such as those related to employment and work-home environments (Romeo et al., 2021). However, none of these studies looked exclusively at psychosocial *learning* environments. McMaughan et al. (2021, p. 10), however, came to the conclusion that students had "neutral feelings" related to online learning, which did not align with our results.

In our study of the unprecedented and rapid shift from a face-to-face learning environment to an emergency remote learning environment during a global pandemic, university-level students' apperceptions measured with the DELES-TR (Phase I) confirmed our hypothesis that students would perceive the remote class psychosocial learning environment less favorably than the face-to-face learning environment. The Phase II qualitative follow-up study component substantiated why.

On the scale of Instructor Support students began rating the learning environment at *M*=4.13 (*Often*) and ended the term in the emergency remote learning environment at *M*=3.59 (close to *Sometimes*). Many of the focus group respondents attributed this drop to their own hesitation to interrupt in a videoconference learning environment. This situation could be mitigated through instructional methods, to include the instructor stopping more frequently to ask for questions or

establishing a social environment that encourages interruption for questions. Further, in contrast to students in the United States, where "…an untold number of college and university students [were] living in homes without a broadband connection" (Campus Technology, 2020, para. 1) and many without any Internet access, including instructors (McMurtrie, 2020), ÇOMÜ students reported few problems with Internet connectivity—over half of the sample accessing their remote class via smartphone.

The scale of Student Interaction & Collaboration demonstrated the weakest learning environment characteristic (*M*=3.32, *Sometimes* occurring) in the face-to-face environment and fared even worse in the remote scenario (*M*=2.55, halfway between *Seldom* and *Sometimes*), the largest drop in student apperception amongst the four scales. The majority responded that the emergency remote learning environment was simply not effective, and any collaboration was time consuming. However, this characteristic being low both before and after the change in learning environment suggests that instructors may want to consider how to increase student interaction and collaboration in all instructional scenarios.

Personal Relevance + Authentic Learning, two scales of the original DELES-TR that we combined into one considering their factor loadings, also demonstrated a substantial decrease in psychosocial characteristics in the eyes of the students—moving from nearly *Often* occurring (*M*=3.76) to only *Sometimes* occurring (*M*=3.01). Personal Relevance, which was related to students solving their own problems, seeking their own answers, and exploring their own learning strategies, despite being statistically related to Authentic Learning, appeared to have had the strongest impression (*f*=33.3%) upon students who reported having reservations about conveying their prior knowledge primarily due to time limitations and the less spontaneous video conference-oriented emergency remote learning environment. Nearly as strong, a theme of "no real learning" (*f*=29.2%) emerged where students perceived the learning environment as being disingenuous due to the lack of collaborative abilities found in a face-to-face setting.

Active Learning + Student Autonomy, two more combined scales, had the least difference between means, *M*=3.99 (*Often* occurring) and 3.61 (about halfway between *Sometimes* and *Often* occurring) respectively. Results demonstrated these were strong psychosocial learning environment characteristics to begin with and remained so after the shift to emergency remote learning. Despite the smallest drop in means, nearly half (*f*=45%) of the students interviewed reflected that emergency remote learning was not suited to their learning preferences due to a loss in locus of control. In contrast, 20% of them reported the only positive comments related to emergency remote learning, that it supported their opportunities for active learning, leading us to believe some students favor active, involved learning where autonomy was concurrently available. In relation, a theme of *responsibility* surfaced from the students; it seems they may have used the term somewhat backhanded as if they knew they should be responsible for their learning and the remote environment forced them into more accountability than they wanted.

5. Conclusion

The largest take away from this study is evident—students who enrolled in a required face-to-face EFL class in a Turkish university context preferred the face-to-face version over the crisis-induced emergency remote learning scenario to the extent that their apperceptions were supported by both statistical and practical significance. Major themes of (1) difficulty in communication with both instructors and peers was evident, as was what appears to be requiring students to take (2)an active, responsible, and accountable role in their own learning.

A pandemic of this magnitude was unprecedented and rather than completely closing down higher education across the globe that might have occurred in this situation thirty years ago, colleges and universities attempted to march on by rapidly shifting to using variations of synchronous and asynchronous digital tools many face-to-face instructors were not accustomed to using, either methodologically or practically. Of the psychosocial learning environment scales examined with the DELES-TR, indications are that attention needs to be addressed toward instructor-student and student-student communication and interaction. Without a relatively easy to correct, clear, and overt instructor-recognized communication strategy, students' negative views tended to bleed over from the

social ecology dimension of *Relationship* to that of *Personal Development* (see Table 1) that lends itself to students shutting down because they can no longer actively participate with peers.

Our study contributed what may be a once in a lifetime, real-time analysis of a massive and rapid shift in global higher education from which we can learn. On a less exuberant scale we have demonstrated another practical application of the 17-year-old DELES as research instrument that, while not holding true to all a priori scales in our study, was flexible enough to allow us an adroit glimpse into the psychosocial nature of students' views of their learning environment as they interpret it, followed by an unprecedented qualitative examination that gave voice to the students' views and increased the depth and nuance of the entire study.

6. Limitations

Limitations of our study include the fact that we did not have actual pre-pandemic quantitative data from the DELES-TR, rather we had students' apperceptions after the fact. Given that any future pandemic or global crisis would be difficult to predict, recommendations for future research are difficult to suggest other than attempting to gather data prior to a rapid-onset crisis event. Also, the target population of our study comprised students from a public university. Different findings could be obtained by using participants from a larger population.

7. Suggestions

Due to the limited amount of evidence concerning the comparison of psychosocial and face-to-face learning environments, follow-up studies are needed to explore this relationship. Further studies may focus on perceptions of learners from different countries to find out the effect of cultural differences on the comparison of the two modes of learning. Also, unlike our study, further research may focus on perceptions of learners from primary and secondary education since their approach to learning might vary owing to various reasons.

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REFERENCES

Anderson, G. J., & Walberg, H. J. (1974). Learning environments. In H. J. Walberg (Ed.), *Evaluating educational performance: A sourcebook of methods, instruments and examples* (pp. 81-98). McCutchan Publishing.

Baars, S., Schellings, G. L. M., Krishnamurthy, S., Joore, J. P., den Brok, P. J., & van Wesemael, P. J. V. (2021). A framework for exploration of relationship between the psychosocial and physical learning environment. *Learning Environments Research*, *24*(1), 43-69. https://doi.org/10.1007/s10984-020-09317-y

Boothman, L., & Cook, M. (2012). Death and disease in the community, 1400-2010. *Local Population Studies, 88*(1), 6-11.

Campus Technology. (2020, May 12). *Where to get free Wi-Fi for students during COVID-19*. https://campustechnology.com/articles/2020/04/30/where-to-get-free-wifi-for-students-during-covid19.aspx

Centers for Disease Control (CDC). (2022, April 26). *SARS-CoV-2 variant classifications and definitions*. https://www.cdc.gov/coronavirus/2019-ncov/variants/variant-classifications.html

Co, M., Ho, M. K., Bharwani, A. A., Chan, V. H. Y., Chan, E. H. Y., & Poon, K. S. (2021). Cross-sectional case-control study on medical students' psychosocial stress during COVID-19 pandemic in Hong Kong. *Heliyon, 7*, 1-5. https://doi.org/10.1016/j.heliyon.2021.e08486

Craig, R. (2020, April 2). What students are doing is remote learning, not online learning. There's a difference. *EdSurge*. https://www.edsurge.com/news/2020-04-02-what-students-are-doing-is-remote-learning-not-online-learning-there-s-a-difference

Fraser, B. J. (2018). Milestones in the evolution of the learning environments field over the past three decades. In D. B. Zandvliet& B. J. Fraser (Eds.), *Thirty years of learning environments: Looking back and looking forward* (pp. 1-19). Brill–Sense. https://doi.org/10.1163/9789004387720_001

Hagedorn, R. L., Wattick, R. A., & Olfert, M. D. (2022). "My entire world stopped": College students' psychosocial and academic frustrations during the COVID-19 pandemic. *Applied Research in Quality of Life, 17*, 1069-1090. https://doi.org/10.1007/s11482-021-09948-0

Hennink, M. M. (2014). *Focus group discussions.* Oxford University Press.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020, March 27). The difference between emergency remote teaching and online learning. *Educause Review*. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

Holmberg, B. (2008). *The evolution, principles and practices of distance education* (Vol. 11). BIS-Verlag der Carl von Ossietzky Universität Oldenburg.

Holtenius, J.,& Gillman, A. (2014). The Spanish flue in Uppsala, clinical and epidemiological impact of the influenza pandemic 1918-1919 on a Swedish county. *Infection Ecology and Epidemiology, 4*(1), 1-8. https://doi.org/10.3402/iee.v4.21528

Hungarian Spectrum. (2020, April 12). *"Distance learning" in Hungary between 1943 and 1945*. https://hungarianspectrum.org/2020/04/12/distance-learning-in-hungary-between-1943-and-1945/

Illéyi, B. (2020, April 11). The truncated school years of World War II were an early major test of today's distance education. *Radar 360*. https://hvg.hu/360/202015__csonka_tanevek__korlevelek_es_radioiskola__hadierettsegi__szunetkozi_orak

JASP Team. (2020). *JASP Version 0.12.2* [Computer software]. https://jasp-stats.org/

Krueger, R. A., & Casey, M. A. (2000). *Focus groups: A practical guide for applied research* (3rd ed.). SAGE.

McMaughan, D. J., Rhoads, K. E., Davis, C., Chen, X., Han, H., Jones, R. A., Mahaffey, C. C., & Miller, B. M. (2021). COVID-19 related experiences among college students with and without disabilities: Psychosocial impacts, supports, and virtual learning environments. *Frontiers in Public Health, 9*(782793). https://10.3389/fpubh.2021.782793

McMurtrie, B. (2020, April 6). Students without laptops, instructors without Internet: How struggling colleges move online during Covid-19. *The Chronicle of Higher Education*. https://www.chronicle.com/article/Students-Without-Laptops/248436

Merton, R. (1987). The focused interview and focus groups: Continuities and discontinuities. *Public Opinion Quarterly, 51*, 550–566. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.890.112&rep=rep1&type=pdf

Miles, M.B., Huberman, A.M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. SAGE.

Moos, R. H. (1974). Systems for the assessment and classification of human environments: An overview. In R.H. Moos and P. M. Insel (Eds.), *Issues in social ecology: Human milieus* (pp. 5-29). National Press Books.

Moos, R. H. (1976). *The human context: Environmental determinants of behavior*. John Wiley & Sons.

Moos, R. H. (1996). Understanding environments: The key to improving social processes and program outcomes.*American Journal of Community Psychology, 24*, 193-201. https://doi.org/10.1007/BF02511887

Moos, R. H. (2002). The mystery of human context and coping: An unraveling of clues. *American Journal of Community Psychology, 30*(1), 67-88.

Olawale, B., Mutongoza, B., Adu, E., & Omodan, B. (2021). COVID-19 induced psychosocial challenges in South African higher education: Experiences of staff and students at two rural universities. *Research in Social Sciences and Technology, 6*(3), 179-193. https://doi.org/10.46303/ressat.2021.37

Oliveira, G., Teixeira, J. G., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Education Technology, 52*, 1357-1376. https://10.1111/bjet.13112

Phipps, B., Dubras, R., Yeo, M., & Clark, D. (2020). *Digital 2020: 3.8 billion people use social media*. https://wearesocial.com/blog/2020/01/digital-2020-3-8-billion-people-use-social-media

QDA Miner 4 Lite (2020). *QDA Miner Lite free qualitative data analysis software* [Computer software]. https://provalisresearch.com/products/qualitative-data-analysis-software/freeware/

Qualtrics. (2020). *Qualtrics Core XM* [Computer software]. https://www.qualtrics.com/core-xm/

Romeo, M., Yepes-Baldo, M., Soria, M. A., & Jayme, M. (2021). Impact of the COVID-19 pandemic on higher education: Characterizing the psychosocial context of the positive and negative states using classification and regression trees. *Frontiers in Psychology, 12*(714397), https://10.3389/fpsyg.2021.714397

Ruiz, J. R. (2017). Collective production of discourse: An approach based on the Qualitative School of Madrid. In R. S. Barbour & D. L. Morgan (Eds.), *A new era in focus group research*: *Challenges, innovation and practice* (pp. 277-300). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-58614-8

SonDakika.com. (2020, March 23). *ÇOMÜ'de uzaktan eğitim başladı* [*Distance education started at ÇOMÜ*]. https://www.sondakika.com/haber/haber-comu-de-uzaktan-egitim-basladi-13042383/

Turkish Ministry of Education (MEB). (2020, March 23). *"Uzaktan eğitim" Bakan Selçuk'un verdiği dersle başladı ["Distance education" started with the course of the Minister Selçuk*]. http://www.meb.gov.tr/uzaktan-egitim-bakan-selcukun-verdigi-dersle-basladi/haber/2057

United Nations Educational, Scientific, and Cultural Organization (UNESCO). (2020). *Global monitoring of school closures caused by COVID-19* [Dynamic map]. COVID-19 Educational Disruption and Response. https://en.unesco.org/covid19/educationresponse

Walker, S. L. (2020). Distance Education Learning Environments Survey (DELES) group report. Mind Garden. https://www.mindgarden.com/347-distance-education-learning-environments-survey

Zou, W., Ding, X., Xie, L., & Wang, H. (2021). Relationship between higher education teachers' affect and their psychological adjustment to online teaching during the COVID-19 pandemic: An application of latent profile analysis. *PeerJ, 9*(e12432). http://doi.org/10.7717/peerj.12432