Comparative analysis of students' views of online learning in the first and second Covid-19 semesters: examples from Türkiye, Poland, Republic of North Macedonia, and Bosnia and Herzegovina

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Abstract. The abrupt change from face-to-face to Online Learning (OL) in the emergency COVID-19 semester surprised and forced students to alter their study habits. Then came the second online period, and students were expected to be happier and more successful since now they were familiar with OL. Was this the case? Had the ways students learned, their perceptions of human interactions among teachers and students in OL, their opinions on the learning environment and their computer literacy changed? Our paper aims to answer those questions using comparative analyses of data sets from the first and second OL periods and attempts to uncover the positive and negative shifts and the topics that remained unchanged. The study's findings show that COVID-19 related educational changes had multidirectional influences on students' learning, ingroup interactions, and views about education and OL. Hopefully, the empirical data collected in this study will provide valuable information about OL's immediate and prolonged effects.

Keywords: Covid-19 related online education, teacher-student interactions, comparative analysis, adaptation to educational changes.

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1.   Introduction

The first COVID-19 period of OL and teaching (2019-2020 spring semester) was characterised by the fast and stressful adaptation of teachers and learners to the new environment. To provide the best education they could, teachers learned how to use digital technologies and modify their teaching strategies (Hatipoğlu et al., 2021). Students acclimated to the new learning context without face-to-face contact with their teachers and peers and without ongoing support from their institutions (Miloshevska et al., 2020).

The second semester of online education (academic year 2020-2021) was characterised by a higher level of customisation to the prolonged online education in countries such as Australia, the USA, Canada (Hickling et al., 2021), and Latvia (Baranova, Kobicheva, & Tokareva, 2021). However, the OL environments in Türkiye (TUR), Poland (POL), Republic of North Macedonia (RNM), and Bosnia and Herzegovina (B&H) have been largely unexplored. The present study aims to uncover the specific similarities and/or differences in students' perceptions of the processes taking place in the two online teaching periods. It compares the results of surveys administered in TUR, POL, RNM, and B&H among university students.

The research questions were: how do English language learners with diverse cultural and language backgrounds in TUR, POL, RNM, and B&H formulate their opinions on:

- interactions among teachers and students;
- methods utilised by students for learning;
- difficulties students faced;
- students' opinions regarding the OL environment; and
- students' evaluation of their computer literacy.

2.   Method

2.1.   Data collection

The first dataset was collected in May-June 2020 (henceforth, the first period – FP) and the second in December 2020-January 2021 (hereafter, the second period – SP). To ensure parallelism among the datasets collected in TUR, POL, RNM, and B&H, a cross-culturally appropriate web-based questionnaire in English was

designed specifically for this study. The questionnaire, which included checkbox, Likert scale, and open-ended items, was used in both periods.

2.2. Participants

The number of participants in both periods was similar to each other (FP=216, of which Males=40.2%, Females=59.2%; and SP=214, of which Males=36%, Females=61.7%) and their country distributions were as shown in Figure 1.

Figure 1.   Participants
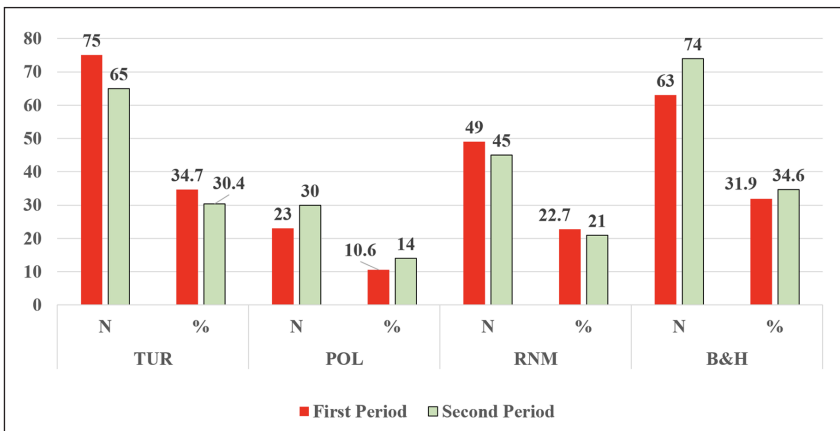
2.3. Data analysis

Two sets of descriptive analyses were performed on the data to demonstrate the common tendencies and the peculiarities appearing locally: across periods and countries. Due to word number restrictions, this paper presents across-period analyses with combined country results.

3. Results and discussion

3.1. Interactions among teachers and students

Figure 2 shows that there are both similarities and differences between the examined periods. The similarity is that students interacted orally and in writing the most with their lecturers in both online periods. The key differences are

observed in the levels of interaction between individual students and student groups. The oral interaction between individual students increased 1.6 times, and group interactions 1.3 times in SP. Written interaction 'within a group of peers' also increased 1.2 times in SP. With these findings, we can argue that students' autonomy and dependence on each other increased in SP.

Figure 2.   Similarities and differences between the examined periods
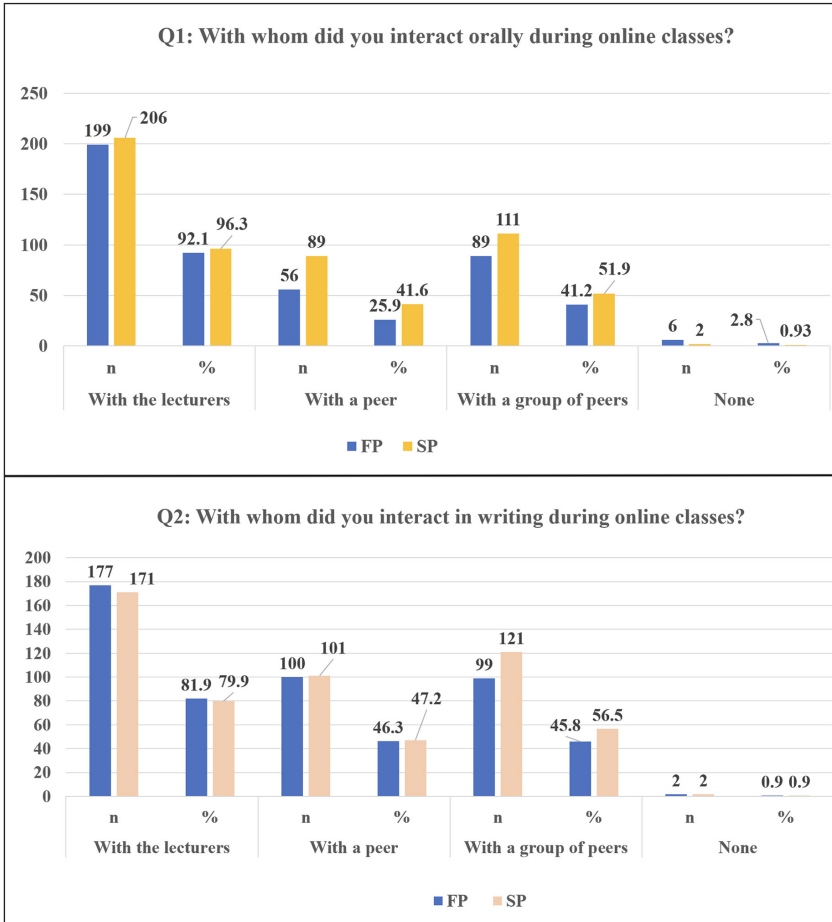
3.2.   Methods utilised by students for learning

Students' autonomy and dependence on each other increased in SP of online teaching as seen from the data presented in Figure 3. Individual and collaborative work among students improved considerably, and 18% more students stated that

they worked collaboratively with a group of peers (Statement iii), and 7.3% said they worked together with a peer (Statement ii) to learn the material.

The percentage of the students who completed their homework after synchronous classes increased by 15.4% (Statement v). The only less frequent activity in SP was Statement vi.

Figure 3. Students' autonomy and dependence on each other: 'how do you study?'
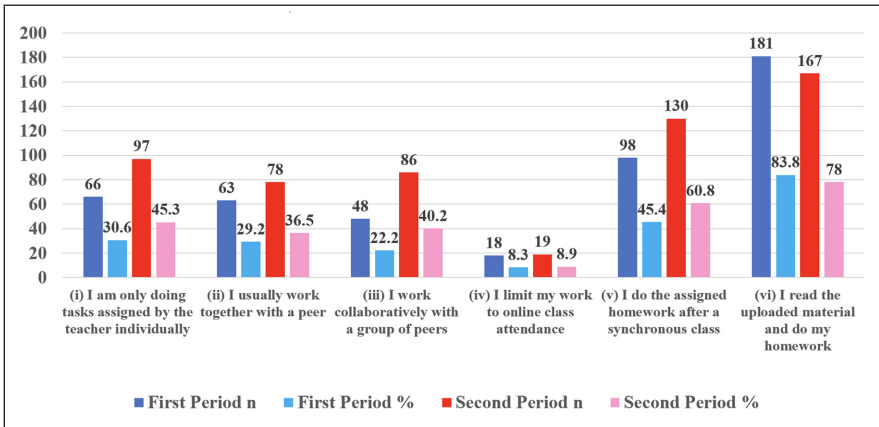
Possibly these increases are because students were more used to online teaching in SP and knew the importance of working individually and doing their homework to master the material.

3.3.   Difficulties students faced

Similar to Kim and Asbury (2020), students reported facing difficulties in the following areas.

- **Technical problems**. More students experienced technical problems such as unstable internet connection and limited access to the internet in SP (FP=65.3%, SP=81.8%). Also, a higher percentage had limited access to technology and devices (FP=15.3%, SP=19.6%).

- **Psychological problems**. The number of students who stated they faced psychological problems such as 'lack of motivation' (FP=67.1%, SP=73.4%), 'inability to concentrate because of boring classes' (FP=44.9%, SP=55.1%), and 'lack of organisation of their part' (FP=35.6%, SP=39.7%)

increased in SP. A higher percentage of students also reported being overwhelmed by the number of online classes (FP=58.8%, SP=69.6%).

- **Institutional problems**. The number of students confused by lack of organisation (FP=35.6%, SP=39.2%) and support from the institution (FP=27.8%, SP=36.5%) also increased in SP.

- **Instructional problems**. More students reported a lack of support from the teachers (FP=34.3%, SP=43.9%) in SP.

3.4. Students' opinions regarding the OL environment

Students' views related to OL were elicited via five-point Likert scale questions (five=strongly agree, one=strongly disagree), and a comparison of the mean scores related to the items showed a negative shift pertaining to all of them (Figure 4).

Figure 4.   Students views about OL
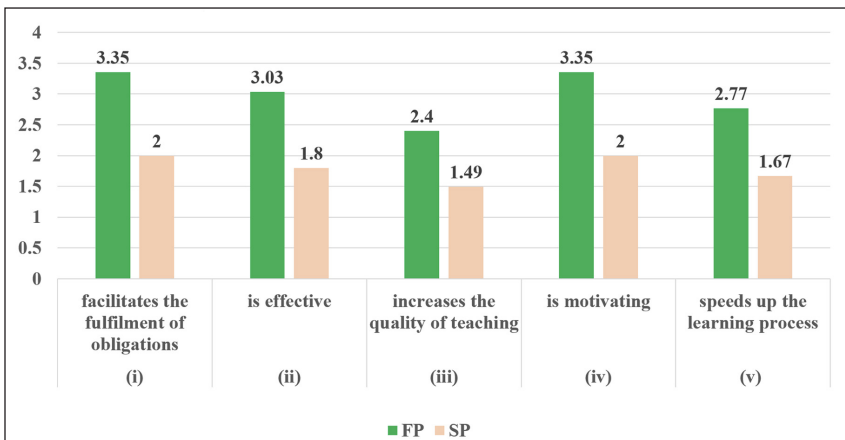
The means do not provide detailed insights into the specificity and backgrounds of each country's changes. However, they illustrate well the general tendencies and reveal that students became more critical, neutral, or indifferent to OL in SP.

Five-point Likert scale questions were also employed to reveal students' opinions about OL. Similar to the set described above, the results showed a more negative evaluation by the students of OL in SP except for items iii and vi, where they disagreed less that 'OL is useless' and that they are 'against OL' (Figure 5).

Figure 5.   Students' opinions about OL
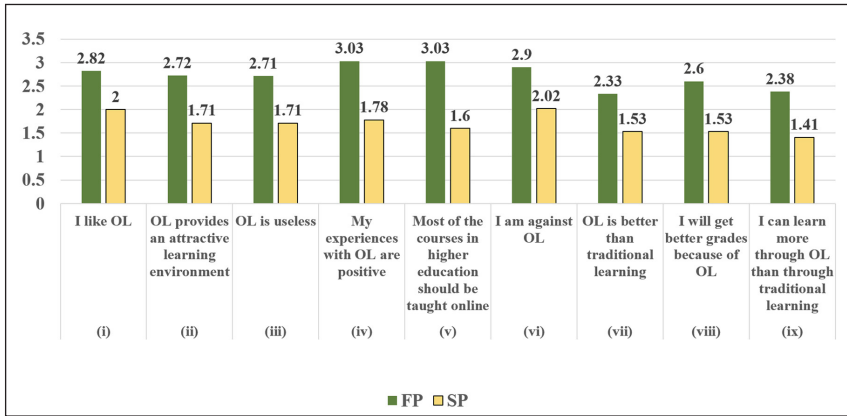
3.5.   Students' evaluations of their computer literacy

When asked to evaluate their level of computer literacy in FP, 54.9% of the students identified it as 'Advanced' and 41.6% as 'Intermediate'. Almost opposite distribution was determined in SP. Only 40.3% classified their computer literacy as 'Advanced' while 56.4% chose 'Intermediate' in SP.

4.   Conclusions

The findings show that COVID-19 related educational changes influenced students' learning to a great extent (cf. Cesco et al., 2021). However, the changes are multidirectional. On the one hand, the students were more teacher-dependent, but they also collaborated with individual peers and a group of peers more often, both orally and in writing, in SP. A holistic look at the difficulties and opinions they expressed in both periods allows for various interpretations. The psychological problems they observed might influence the other aspects of learning. With a lack of motivation, concentration, and self-organisation, all problems might grow, increasing the feeling of 'supportlessness', and decreased self-confidence even in their computer literacy. As all opinions tended to be either more neutral or critical in SP, we may infer that the students became more pessimistic, irreflective, or indifferent towards the learning environment they experienced. On-campus experience and a connection with universities are things that students missed during the online FP and SP. The study's findings suggest that in universities, in-class instructions, including video-recorded ones, should be more common in the future than instruction solely available online.

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