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Research Article

Project-based Online Collaboration for ELT Pre-service Teachers After the COVID-19 Pandemic

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Abstract: This study highlights the implications, potentials, and challenges of an attempt to conduct the final project of a tertiary level course in a fully online learning environment following the outbreak of the COVID-19 pandemic. The aim of the study is to investigate the English language teaching (ELT) pre-service teachers' (PST) (n=46) preferences of web 2.0 tools in an online group project and their perceptions of an online task-based project in order to better understand the affordances of distance learning and evaluate its learning outcomes for the given pedagogical context. An online survey and a reflection report were used to collect the data for this study in which the participants were asked to reflect on their live in-group experiences, the web tools they utilized, perceptions toward conducting a fully online project, and online group dynamics. The findings showed that doing a fully online collaborative project (OCP) had challenges, even though the benefits outweighed them. Besides, it was seen that giving the participants the opportunity to be autonomous throughout the project resulted in their use of various online applications and platforms that suited their needs.

Anahtar Sözcükler: İngiliz dili eğitimi, bilgisayar aracılı iletişim, çevrimiçi işbirliği

COVID-19 Salgını Sonrası İngilizce Öğretmen Adaylarının Proje Tabanlı Çevrimiçi İşbirliği

Özet: Bu çalışma, COVID-19 pandemisinin ortaya çıkmasının ardından tamamen çevrimiçi bir öğrenme ortamında üniversite lisans düzeyinde bir dersin bitirme projesini yürütme girişiminin sezdirimlerini, potansiyellerini ve zorluklarını ortaya koymaktadır. Bu çalışmanın amacı, İngilizce Öğretmen Adaylarının (n=46) bir çevrimiçi grup projesinde web 2.0 araç tercihlerini ve çevrimiçi görev temelli bir projeye ilişkin algılarını uzaktan öğrenmenin olanaklarını daha iyi anlamak ve verilen pedagojik bağlam için öğrenme çıktılarını değerlendirmek için incelemektir. Katılımcılardan anlık grup içi deneyimlerini, kullandıkları web araçlarını, tamamen çevrimiçi bir proje yürütmeye yönelik algılarını ve çevrimiçi grup dinamiklerini yansıtmalarının istendiği bu çalışma için veriler, çevrimiçi bir anket ve yansıtma raporu aracılığıyla toplandı. Bulgular, faydaları ağır bassa da, tamamen çevrimiçi, işbirliği gerektiren bir grup projesi yapmanın zorlukları da olduğunu gösterdi. Ayrıca, proje boyunca katılımcılara özerk davranma olanağının sağlanmasının, katılımcıların ihtiyaçlarına uygun çeşitli çevrimiçi uygulama ve platformları kullanmalarına imkan tanıdığı görüldü.

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1. Introduction

As a well-known pedagogical technique, group work has been one of the favorite choices of educators as it facilitates learning through peer collaboration. Even though many studies represented group collaboration positively and revealed collaboration tasks enhanced outcomes for learners during face-to-face (F2F) encounters, the challenges these tasks presented to the students have also been unveiled. With the widespread use of computer-mediated communication (CMC) environments, educators have realized the opportunities these environments presented in terms of collaboration (Godwin-Jones, 2003; Xie et al., 2019). Likewise, computer-supported collaborative learning (CSCL) has taken a fast-growing place not only in the current literature (Margaliot et al., 2018) but also in online education (Hernández-Sellés et al., 2019). Therefore, there has been a growing interest among researchers to reveal the potential of the online platforms in the contexts they are used for traditionally well-known peer collaboration tasks and to investigate whether collaboration could be encouraged via online environments (Nussbaum et al., 2009).

With the outbreak of the COVID-19 pandemic, universities all around the world needed to conduct their courses online, even if they were caught unprepared. According to the International Association of Universities Global Survey Report by Marinoni, Van't Land, and Jensen (2020) on the impact of the pandemic, approximately two-thirds (67%) of all higher education institutions in the world had to switch to emergency distance learning with the reported challenges of "access to infrastructure, distance learning competences and subject-field specific requirements" encountered along the way (Marinoni et al., 2020, p. 11). The challenges put aside, in an attempt to survive the new norms of isolation and safe distance, the educational ecosystem has responded by either developing or adapting several novel pedagogical tools, communication services (e.g., Zoom, MS Teams, Google Classroom, etc.), and classroom practices (e.g., learning by design, multiliteracies, etc.) that offer "new safe experiences" to both sustain the social engagement of the learners and provide meaningful learning practice (Grover & Sabherval, 2020, p. 3). Although there had been flipped programs and various programs offered at the universities fully online before and throughout this period of emergency remote learning, the obligation of conducting F2F courses through exclusively online platforms came out with this pandemic. Therefore, investigating how effective this process was for the pre-service teachers (PST) of English caught researchers' attention by offering the chance to observe the digitally immersed participants. Accordingly, the students completed the final project of the Community Service course online because of the COVID-19 pandemic; therefore, it was essential to see the processes they experienced during online collaboration while they accomplished their goal and the variety of resources and strategies they employed in order to accomplish this project. Although there are many studies conducted to investigate EFL learners' video-based projects, there is a lack of research in the Turkish context that aims to design an online collaboration video-based project to reveal PSTs' perceptions and to investigate the web tools, online resources, and platforms they preferred during online collaboration.

By adopting the social constructivist approach, this study aimed to encourage online small group collaboration so that the participants could actively participate in all phases of the project, exchange and build knowledge, scaffold one another via synchronous and asynchronous feedback towards the achievement of a single product as a group and an individual product while they were working at a distance. As the studies in the literature mostly focused on the individual video logs of the participants, the collaborative video designs of the learners and perceptions of the emerging dynamics of online collaboration

remained neglected (Cayari & Fox, 2013), especially in the Turkish context. Therefore, this study focused on filling this critical gap, especially during the pandemic, when the participants had to complete their group projects at a distance. Besides, with or without the pandemic, the CMC environments is being actively used for educational purposes. For that reason, studies need to be designed to not only confirm the learning outcomes of these environments for group collaboration tasks as one of the most frequently utilized pedagogical tools but also draw conclusions for further implications. This motivation prompted the need for this study. Accordingly, answers to the following questions were investigated:

1. What web 2.0 tools do the ELT pre-service teachers use for online project-based collaboration?
2. What are the perceptions of ELT pre-service teachers toward doing a fully online collaborative project?
3. How could the designed online collaborative project transform the ELT pre-service teachers' perspectives towards the community service experience?

2. Literature Review

2.1. Conceptual background

Although the terms' cooperation' and 'collaboration' have been used in the literature by several scholars interchangeably, Dillenbourg (1999, p. 8) distinguished these two terms by stating that cooperation occurs when "partners split the work, solve sub-tasks individually and then assemble the partial results into the final output" while in collaboration, "partners do the work together." However, Dillenbourg adds that even though some work splitting could take place in collaboration as well, it is different from the cooperation, where the peers divide the labor into subtasks and work in complete independence.

With technology being in students' everyday lives, collaborative learning via computer-mediated environments has become inevitable for education. Dillenbourg (1999) emphasized that CSCL answers people's needs and therefore is a valuable field for researchers to invest in. Stahl, Koschmann and Suthers (2014, p. 479) defined CSCL as "collaborative learning that is facilitated or mediated by computers and networked devices." Stahl et al. (2014) describe the purpose of the CSCL approaches, which were guided by social constructivist theories, as bringing students together via computers "to learn collaboratively in small groups and in learning communities." According to Dillenbourg et al. (2009), when collaborative learning takes place in a 'computer-supported' environment, it does not only mean students are working remotely on the same task but also blending the F2F environment with the use of technology. This means CSCL could actually occur while the students are in the same class, even working in front of the same computer. For this study, however, the participants collaborated remotely via online platforms.

As stated by Godwin-Jones (2003), working and learning in collaboration with peers via networking is very much in line with the constructivist learning approach. From a social constructivist view of Vygotsky (1978), learners can learn better when they find opportunities to learn from one another via interacting. As Can (2009) indicated, for the constructivist approach to be applicable in online teaching and learning, it is important to give learners the opportunity to do activities where they need to collaborate with their peers with the use of online collaboration platforms. In addition to the fact that collaboration is evidently beneficial for the learners in the literature, Nussbaum et al. (2009) stated that collaboration in online environments boosted social interaction more in groups, which shows that the

technology-mediated environments could actually be suitable for constructing knowledge and learning from peers. Specifically related to the current study, Huang, Wu, Jiang, and Li (2020) indicated that online collaborative video designing projects helped EFL learners develop their media literacy skills, collaborate with a group, and participate while learning from each other. What Huang et al. (2020) revealed is highly important that online collaborative video designing projects helped learners develop collaboration skills in a group. However, as Nussbaum et al. (2009) remarked, it does not always mean that students who work in groups are actually collaborating. Accordingly, as Xie et al. (2019) concluded, for the group engagement and cohesion to occur, it is important for the participants to feel that they belong to that group. In addition, Huang et al. (2020) put forward that besides creating useful content, EFL learners could benefit from video-based projects to develop digital literacy skills in the technology era. In the context of the current study, where group discussion is enabled via web platforms (WhatsApp, Discord, Zoom, Skype), working on a collaborative video-based project including sub-phases where the learners are expected to come up with a single output could facilitate social interaction, knowledge sharing, and peer learning.

As for the many reasons why collaborative projects are highlighted, Su and Zou (2020), in their comprehensive review of technology-enhanced collaborative language learning (TECLL), named some of these as; an increase in accumulation of language knowledge, development in brainstorming, negotiation, and critical thinking skills, and learning from one another via peer collaboration and scaffolding without time and place constraints. While Zeng and Takatsuka (2009) put forth that technology-enhanced collaboration helps students to make their own decisions based on a mutual effort, they also highlighted how this process might lead the learners to feel part of a community. A similar connection between online collaboration and building a sense of community was also made by Koşar (2021) and González-Lloret (2020). In the end, as Jones and Issroff (2005) suggested, task ownership and feeling like a community are regarded as motivational features for successful online collaboration. Along the same line, Selçuk (2017) indicated that working in collaboration in technology-enhanced environments could strengthen the students' perception of being in a community and help them feel more comfortable. Also, as Lave and Wenger (1991) mentioned, activities involving social interaction are important in forming a community of practice that can act collaboratively on the shared domain of online interaction toward fulfilling a common interest. From a social constructivist view, this project, not only encouraged the use of technology-enhanced environments but also aimed at raising students' awareness of the pandemic-posed community problems via collaborative work. This, in return, could augment the sense of community among the PSTs and help them in forming an identity of a teacher who is sensitive to the community's problems they live in, which is a program requirement of English language teaching (ELT) departments in Turkey.

2.2. Previous research

Recent work has focused on how online collaboration affects student learning and it was seen that the online collaboration offers promising opportunities for learners. For instance, Huang et al. (2020) investigated if doing a vlog project had any facilitating effect on the language learners' collaboration and participatory skills. Analysis showed that they had a high level of collaboration during the project, and it was overall a positive experience for the learners, although they mentioned its challenges. They mentioned that they enjoyed being a part of this video project; it boosted their confidence in speaking English and improved their speaking skills, while they also indicated that decision-making was hard and technical details consumed time. In addition, Hafner and Miller (2011), with a specific focus on autonomous

learning, implemented a project for which the participants prepared scientific documentary videos as a group via online platforms such as Youtube and Edublogs. They discovered that digital learning environments enable opportunities for self-directed learning, and thereby boost learner autonomy. Aksel and Gürman-Kahraman (2014) conducted a video project assignment with English language learners and investigated the effectiveness of the project on their language learning. The learners designed videos in groups on pre-selected themes related to their course curriculum. The findings indicated that the participants' language skills, especially listening and speaking, showed improvement, and they had a positive attitude towards the project. The study also showed that the participants liked using technology for language learning purposes, felt more creative, and had opportunities to learn from their peers. This study also confirmed that the themes of such projects play a crucial role in arousing the interest of the learners. Cayari and Fox (2013) conducted a vlog project where the participants produced vlogs as a group within the scope of a technology and education process. As a result, the participants benefited from the project, which was discussed as academic and social outcomes in the study, despite mentioning some drawbacks. In a nutshell, the academic outcomes were summarized as a sense of belonging to a community, becoming aware of one's own voice and having a platform to be heard, and gaining technical literacy skills, which were also mentioned in Hung (2011). Social outcomes, on the other hand, were accepting the others' differences and building relationships at a distance. In some other previous studies, it was reported that creating videos left a positive impression on students and impacted how they see the language learning process. Their findings showed that video projects enhanced the language learners' interest in the language, increased their interaction (Huang et al., 2020; Hung, 2011; Nussbaum et al., 2009), and fostered their performance and motivation (Hung, 2011). In addition, they saw that their participants' oral communication skills improved in the end. As the drawbacks of video designing projects, time issues and technical problems (Cayari & Fox, 2013; Hung, 2011) were most repetitively mentioned. Also drawing attention to its drawbacks, Jung, Kudo and Choi (2012) indicated that online collaboration might not always bring out positive perceptions among learners. Exploring the PSTs' attitudes toward online collaboration, Margaliot et al. (2018) spotlighted the challenges that could arise from various group dynamics that cause frustration, such as divergent opinions and workload distribution problems. In their study, Jung et al. (2012) explored the stress factors caused by online collaborative learning with the participation of Japanese learners of English. Still, they reported the frequently mentioned benefits of online collaboration mentioned by many researchers, such as "its improving access to shared knowledge, experience, ideas, skills, and resources, encouraging working towards common aims, increasing the credibility of the processes and outcomes and probably leading to ongoing working relationships" (pp. 1016-1017). However, Jung et al. (2012) ended up finding some factors causing stress during online collaboration, such as self-efficacy, collaborative process, instructional design, and technology use.

Although most of the aforementioned studies highlight the importance and potential of creating videos and online collaboration for language learning purposes, this study explored how the collaborative video project had been for the participants without any F2F support or scaffolding by the participants' instructors or group members. In the literature, there are studies that investigate the effect of video logs and video designing projects for language learners in a variety of contexts. However, there is no other study, particularly in the Turkish context, which investigates the PSTs' online collaboration via video designing projects in the teacher training context at a distance. Hence, drawing on the results of a singular case in its own pedagogical context, the current video project could exemplify a practice of how the

boundaries of in-class collaboration could be overcome by extending the digital practices of the learners to the distance learning environments.

3. Method

3.1. Research design

In this study, a qualitative case study methodology (Creswell, 2007) was used to answer the research questions. To generate in-depth, rich data, qualitative studies necessitate multiple information sources (Richards, 2003). Participants were, therefore, asked to complete a survey including open-ended questions as well as a reflection report that required a thorough description of their project experiences.

3.2. Context and participants

The context of the study was a four-year undergraduate program in the ELT department of a Turkish state university in Istanbul, Turkey. The participants were 46 pre-service English teachers aged between 19-21. At the time of the study, the participants were in their third year of study. The study took place within the scope of a compulsory course, 'Community Service' in the 2019-2020 spring semester. In the ELT Departments of Turkish universities, 'Community Service' course aims to raise the students' awareness of the community's problems and expectations, brainstorm on the possible solutions to issues community faces, and design, cooperate and take part in projects towards the improvement of the community issues. Including the implementation of the final project of the 'Community Service' course, collection of surveys, and reflection reports, the whole study lasted for four weeks. As a requirement of their course, the participants were instructed that completing the final project, which included the reflection reports, was mandatory. However, participation in the study and submission of the surveys were voluntary. Consent forms were obtained from the participants who agreed to participate in the study, and they were informed that the data that identifies them would not be disseminated for any purposes and their information would be assigned a code number to protect their privacy.

3.3. The design of the project

For the final project, the participants were asked to design up to three-minute informative videos on the main theme "Raising awareness of the community about COVID-19 pandemic," assigned by the instructors of the course. This project was the participants' first fully online group project for which they did not have any opportunity to meet F2F because of the COVID-19 global pandemic. Working remotely, the participants formed groups of 4 or 5, with each group choosing its own group members. Every group was supposed to come up with a subtheme and design their groups' video accordingly. The instructors of the course suggested subthemes to the groups (e.g., the common wrongdoings during a pandemic, how to motivate people to stay at home, and the importance of psychological well-being during a pandemic). As Dillenbourg (2002) indicated, for effective collaboration to occur, it is important to unmistakably identify the details of how the learners will collaborate and complete the task/project. Therefore, the final project consisted of four clearly defined phases (Figure 1).

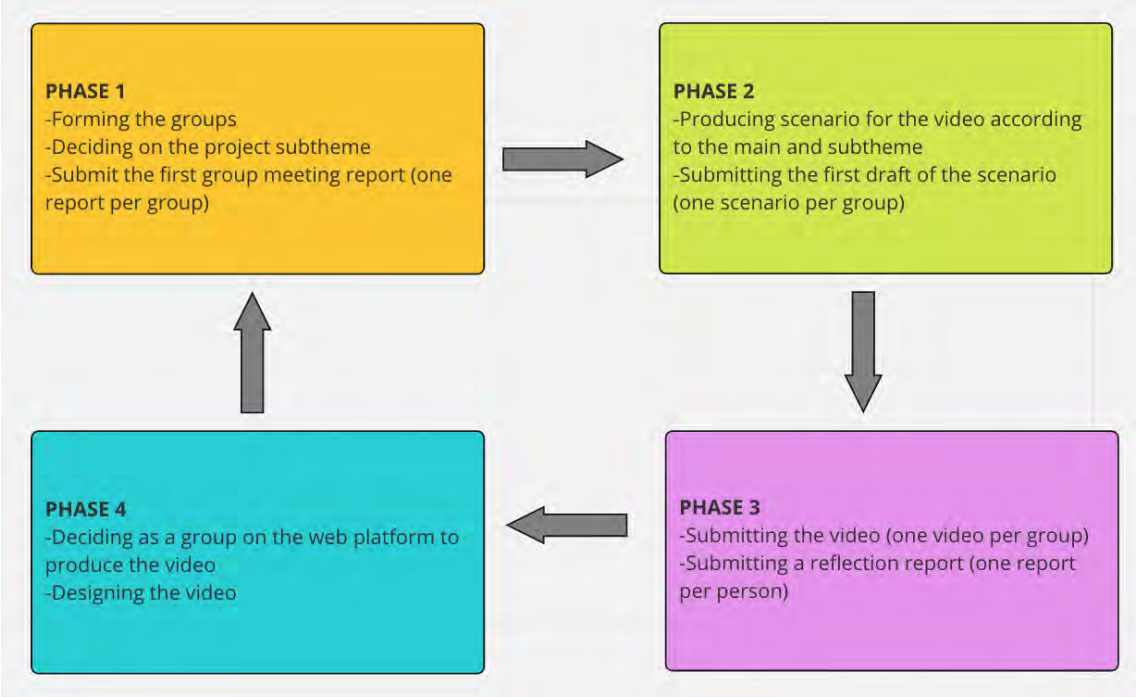

Figure 1. Phases of the Community Service course final project

The participants met synchronously and/or asynchronously on a weekly basis to complete the project. The project lasted for four weeks, including all four phases. The groups themselves decided on what online platforms/web tools/software to use for their in-group interactions and the video creating/editing. Besides, to enhance the technologically enriched environment and support the students throughout the video project, a range of additional technological tools and platforms were used by both the instructors and students. As a learning management system, Edmodo was used, and to store and asynchronously work on the class files, Google Drive and Docs were utilized. In addition, to upload the videos the groups produced, a channel on YouTube, and to present the whole project process, materials, and videos, a project website via WordPress were used. The aims of the project were to:

1. Foster meaningful communication via dialogic learning in a real context,
2. Raise awareness of community-related problems as indicated in the ELT program course requirements,
3. Learn digital literacy skills by doing,
4. Get familiar with web 2.0 tools used for interaction and video creation,
5. Learn how to conduct a group project online.

For this collaborative video project, each group of participants was working towards a single outcome, that is, "producing a video on a preassigned main theme," and also they had to come up with individual outputs as well in the last phase of the project, that is, "submitting a reflection report" (Figure 1). Being dependent on the group and also being able to work towards a goal independently gives the group members an opportunity to actively participate in the process and make their voice heard. Besides, as for the teachers, it is compelling to assess the participants' individual participation in the group while the group is working towards a single outcome. Therefore, assigning goals to the participants dependent and independent of the group in the same project might both give a chance for collaboration and individual assessment.

The researchers, as also the instructors of the 'Community Service' course, set up the task, gave the instructions by explaining every phase of the task in detail, and let them work collaboratively amongst themselves by providing almost no further support except for answering their additional questions during the project. As in line with Vygotsky's (1978) social constructivist theory, the learners were given space to work together, scaffold one another, and offer assistance when needed.

To boost technological ownership, the participants were allowed to choose the technological platform in which they would like to use to create their video. In this way, the researchers aimed to set the participants free from feeling overwhelmed since they would be designing their video via a platform they feel competent in or at least on a platform they are willing to learn about. Also, by letting them utilize the platform of their choice, it was aimed that the participants own the project and the technology they use for the project and be competent to continue using it after this project ends as well. Additionally, even though the main theme and the suggested subthemes were provided to give the participants an idea of what they were supposed to do for the video project, no specific subtheme for their videos was dictated, and the participants were given permission to use a subtheme outside of the list to enhance their creativity and critical thinking.

3.4. Data Collection Instruments

For this qualitative case study, the data was collected via a survey and a reflection report, both of which were completed by 46 junior students individually. After all the phases of the project were completed, the survey was sent to the participants via Google forms. The survey questions were written in the participants' mother tongue to collect in-depth data. The survey contained 13 questions in total; 2 of which were closed-ended, 1 of which was a 6-point Likert scale (1 point indicates that it affected the participant the most, and 6 points indicate that it affected them the least while communicating online in groups) and the rest 10 questions were open-ended. In addition to the demographic questions, the rest of the questions were asked to reveal the participants' experiences about and perceptions toward doing a fully OCP, and the web tools/platforms they preferred to use for the project. Before sending out the link of the survey to the participants, two experts from the field and three junior students at the ELT department were asked for their opinion of the survey questions in terms of clarity, linguistic aspects, and additional thoughts. After revising the survey according to their suggestions, the consent forms, which included statements related to confidentiality and the voluntary basis of filling out the survey, and the reflection reports were obtained from the participants. Only the data from groups comprising entirely of volunteers were included in the study. As the second data collection instrument for this study, reflection reports were collected in order to gather in-depth data from each student to reveal their experiences and perceptions of doing a fully OCP in addition to their suggestions for future OCPs. In the reflection report, the students were specifically asked to write a report on the question "Please, describe the online collaboration process with your group, and reflect on your experiences, and thoughts related to the project. In the end, please add your suggestions for further online projects like this one."

3.5. Data Analysis

A qualitative interpretive approach was adopted to analyze and reflect on the OCP comprehensively (Richards, 2003). For that reason, the researchers decided to use most of the questions in the open-ended format in the survey to be able to present in-depth

descriptions of the participants' experiences related to the video-designing project. So, the qualitative data collected via a survey and a reflection report were analyzed using a constant comparative method (Glaser & Strauss, 1967). First, participants' names have been changed to a code number to protect their privacy. Then, the data was transferred to the qualitative data analysis software, MAXQDA, and codes that came up at the end of the first analysis were introduced to the system. Codes were continuously compared and contrasted until key categories started to emerge (Figures 4 and 5 for the complete list of the categories and codes). Since the MAXQDA system allows for coding, annotating the data in an inductive manner, enough flexibility for the visualization of the data and sharing, and synchronously working on the same data files with multiple researchers, the researchers preferred this software. Finally, two independent experts from the field coded the representative sample of the data according to the coding scheme provided by the researchers to enhance the intercoder reliability (Cohen's kappa= 0.78). The close-ended questions, on the other hand, were analyzed via frequency analysis.

4. Findings and Discussion

All 46 participants filled out the survey and wrote the reflection report. In this section, the findings obtained from the survey and the reflection report were presented along with the discussions of the relevant research.

4.1. Web 2.0 Tools Used by the Participants

In order for the online collaboration to work effectively, it is highly important for the group members to have access to a wide range of online collaborative tools (Hernández-Sellés et al., 2019). As depicted in Figure 1, the participants utilized a variety of web 2.0 tools to communicate with their group members, albeit at varying frequencies. When the participants were asked if they would use the web tools given in Figure 2 for future online collaborations, all the participants except one participant indicated that they would.

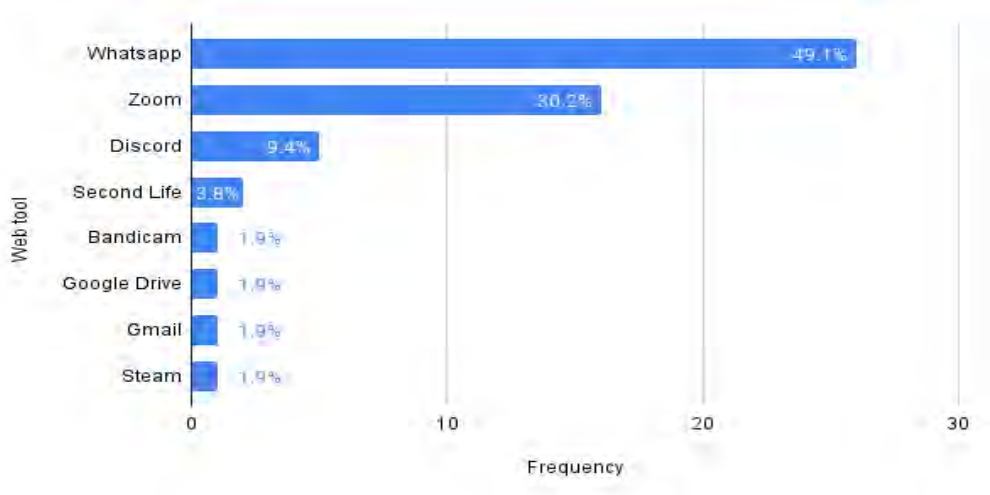

Figure 2. Web 2.0 tools used to communicate with group members

The findings in Figure 2 demonstrate that the most frequently used web tools were Zoom and WhatsApp, which clearly shows that the participants preferred to use the web tools that they are most familiar with in their daily lives. This displays that the learners choose the web platforms and web tools with which they feel more comfortable with and need less time

sparing to learn technical requirements. For that reason, if leaving the decision of web tool choice to the groups is not an option for some tasks, it might be better for the instructor to spend time teaching the use of the suggested tool before getting the groups to start with the task. Table 1 depicts the most frequent advantages and limitations the participants mentioned for each tool they used for the project:

Table 1.

The advantages and limitations of the web 2.0 tools participants used

Web 2.0 tool	**Advantages**	**Limitations**
WhatsApp	• Easy to access • Everyone is familiar • Free calls • Fast • Instant texting and feedback • User-friendly interface • Practical • Synchronous and asynchronous group interactions • File sharing • Video conferencing option • Text/audio/video chat all in one app • Voice recording option • Very similar to f2f interaction • Easy to get organized and work as a group • Video call option for up to 8 people	• Decreases image and video quality • Maximum file size sharing limit • Sound quality • Screen freezes
Zoom	• Easy to work as a group • Video-based and audio-based communication options • Screensharing option • Synchronous communication feature • Meeting recording feature • File sharing option • Very similar to f2f interaction • Instant feedback • Provides a warm, welcoming environment • Suitable for group discussions, brainstorming sessions • Facilitates group projects • used by other course instructors as well	• 40-minute video conference time limit • Screen freezes • Technical problems caused by screen sharing feature • Sound issues
Second Life	• Provides an environment to get together as a group	• Creates too many technical problems • Sound issues
Discord	• Text/audio/video chat all in one platform • File sharing option • Screen sharing option • Very similar to f2f interaction • Practical • User-friendly interface • Free calls • Instant access to group members	• Not as good as WhatsApp in terms of texting feature

It is revealed in Table 1 that the advantages of Zoom, WhatsApp, and Discord outweigh their disadvantages, which shows that even after using these web tools for their group collaboration and having a few technical problems, they still stand by their choice and believe

that these tools are suitable for the purpose of collaborating online with groups. In addition, the participants indicated that not being restricted to one tool by their instructor gave them a chance to collaborate both in asynchronous and synchronous modes. Their statements included that they were able to keep collaborating, exchanging information, and receiving feedback via WhatsApp on some days when they were not having a video conference meeting on Zoom or Discord. According to the participants, this allowed for continuity in the group discussions and encouraged them to contribute even after the synchronous meetings whenever a new idea occurred to them. In the F2F Environment, however, they indicated that they might not have a novel idea instantly at the moment of the group meeting, and obviously, the F2F meetings did not have an asynchronous mode to enable further contributions after the meetings. As the most general limitation of the online environments, almost all the participants mentioned that most of the time, the problems were not related to the web tools but rather to a poor Internet connection. This highlights one of the takeaways mentioned by González-Lloret (2020): "considering the technological contexts of the participants is important, and some online collaboration tasks require a strong and stable Internet connection" (p. 267).

Hernández-Sellés et al. (2019) mentioned that it is essential for online collaborative tools to be effective, which comprise many features such as allowing for both synchronous and asynchronous chat option, problem-solving, fluent interaction, and coordination, supporting group members, and facilitating communication. As the most prominent features for the online group collaboration, the participants indicated that a web 2.0 tool must have an audio/video/text chat option in one platform, screen sharing and file sharing feature, support for synchronous and asynchronous interaction, and a user-friendly interface as illustrated in Table 1. This indicates that the majority of the participant-identified characteristics of an ideal tool align with those of Hernández-Sellés et al. (2019). The participants of the current study also favor and list the features which enhance uninterrupted communication and improve their coordination and collaboration with their peers. Given that the pre-service teachers in this study did not receive any training for technological tools prior to the project, the most notable interpretation of this finding could be that they are sufficiently equipped with the digital literacy skills necessary for successful online collaboration because they "have the ability to effectively make use of the technologies at their disposal and have the awareness for the appropriate use of the new technologies" (Dudeney & Hockly, 2016, p. 115).

4.2. The Participants' Perceptions of the Online Collaborative Project

In the survey, when the participants were asked if they would prefer to work as a group for a fully online project again, more than half of the participants (57.5%) indicated that they would like to attend such a project, while 7.5% of the participants mentioned that they would prefer to have the option of doing the project on both F2F and online environments (Figure 3). Generally speaking, this shows that more than half of the participants had a positive experience doing a fully OCP even though 35% of the participants preferred to do the next possible group project in a F2F environment.

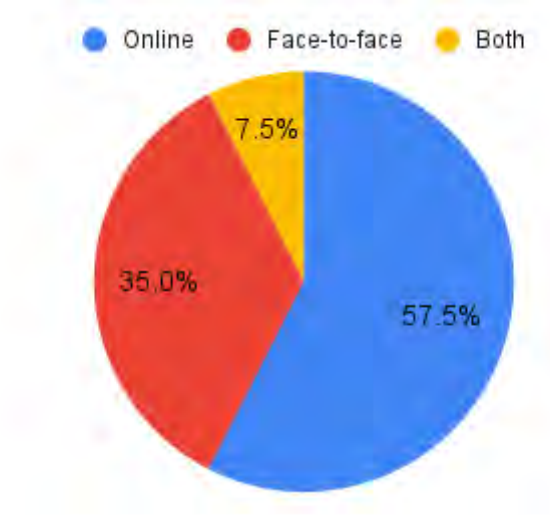

Figure 3. The environment choice of the participants for the next possible group collaboration project

As PSTs, when the participants were asked if they would use online collaborative group projects with their future students, most of the participants (78.3%) responded positively. The fact that the majority of the participants are satisfied with OCPs and are inclined to use them in the future demonstrates that they are aware of the professional significance and added value of OCPs, which is a parallel finding with Margaliot et al. (2018). The most frequently mentioned reasons by the participants as teacher candidates were presented in Table 2 below with their corresponding categories:

Table 2.

The reasons of PSTs to implement OCP with their future students and their corresponding themes

Corresponding category	The reasons of PSTs to implement OCP with their future students
Physical benefits	• Students can join this activity from home. • The teachers can keep track of all the phases of the project. • It is environment-friendly (fewer handouts). • Education does not get interrupted in extreme situations like a pandemic. • It gives students an environment to convey their thoughts. • The learners are digital natives.
Affective benefits	• It is fun, engages learners, and helps them focus on the lesson. • The students could socialize and be motivated to study after school.
Academic benefits	• It promotes learner autonomy. • Students can use technology for learning. • They could see a fully online group project is possible. • It helps knowledge retention. • It helps them be more creative. • It promotes interaction in the target language. • We are all in the technology era, and the students need to keep up with it.

In general, the participants recognized the benefits and limitations of doing a fully online collaboration project, which was reported and discussed in the following section.

4.2.1. Benefits of online group collaboration

The most prominent findings revealed were that the participants realized the potential of online group collaboration, which was reported under three main categories: affective, academic, and physical benefits (Figure 4).

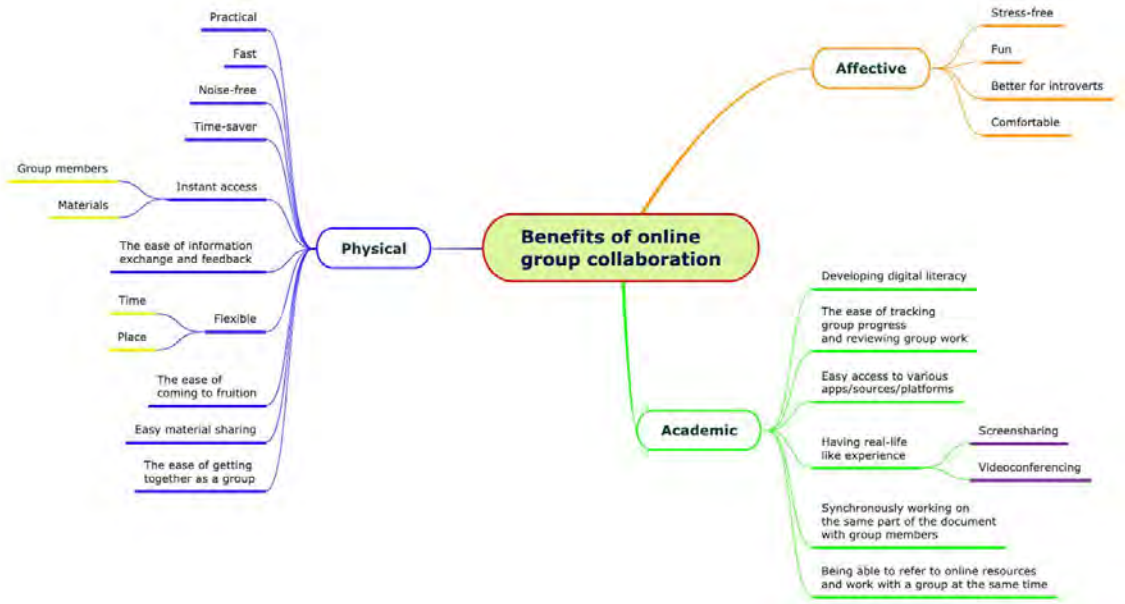

Figure 4. The categories and codes related to the benefits of online group collaboration

Affective benefits:

Dillenbourg et al. (2009) indicated that affective issues that influenced collaborative learning were neglected in the CSCL field. However, in the current study, it was seen that the OCP appeared to have affective benefits for the learners. Most repetitive comments of the participants indicated that doing a fully OCP was fun and comfortable, created a more stress-free environment, and encouraged the introverted students to participate in the project more. Given the importance of lowering the affective filter of EFL learners when communicating in their target language, the effectiveness of OCP reported here should encourage educators to integrate OCPs more into their instruction. Exemplary participant comments are as follows:

> S23: *Even when online, we were able to reduce the social distance between us and our group friends and we had a pleasant time.*
>
> S34: *We all had fun using the online platforms and expressed our opinions clearly. It was also comfortable as we could always be in contact with each other. It was a less stressful process.*
>
> S43: *I did not really like group work; however, the online project made me love group work. In my opinion, working online is less tiring, I was able to express myself more easily.*

Besides, as the participants highlighted many times, thanks to the flexible nature of the OCP's design, the floor was handed over to the participants so that they could have the freedom to

express their opinions. In the paper where they discussed the importance of the affective issues in CSCL field, Jones & Issroff's (2005, p. 398) statement clearly supports this issue even though they still argued that very few input could create problems and there needs to be guiding instructions for the learners: "In the context of learning technologies, freedom for the learner to negotiate their own path through the material may be very attractive and motivating." Except for giving the necessary instructions, instructors' letting the participants decide on the web tools and choosing the sub-themes of their project made them feel more independent and less stressful.

Academic benefits:

The fact that the participants experienced firsthand and repetitively admitted that it was possible to do a fully OCP is a notable finding. In Cayari and Fox's (2013) study investigating the pedagogical application of the collaborative video log as group work, they also highlighted how important it was for the students to realize that these types of projects were possible. It was observed that the participants did not have an understanding of an OCP before. Therefore, the novelty of the fully OCP made them realize the affordances of an online project and gave the participants the opportunity to gain experience:

> S14: *I will prefer to work online more in my next group projects. Before this experience, I did not think that working online was such an effective method. I was in favor of meeting face-to-face once or more. But after having to use it so often, I realized that it is not as impractical as I thought. Depending on the nature of the project, I may not prefer to meet in a real environment at all for some future studies.*

Besides, it was seen that doing video projects helped the participants as EFL learners to gain confidence in the technology used for educational purposes:

> S27: *I was able to improve myself and use technology more efficiently.*

In line with Hung (2011), the participants saw the benefits of doing a video project in terms of professional development and digital literacy skills. This finding is important in the sense that since the participants of the current study are PSTs, as also the project required, it is highly important for the participants to be able to create content in English with the use of various online platforms and applications, which is among the program attainments of ELT departments in Turkey.

Besides, the participants mentioned that video and audio conferencing environments helped them feel more connected, and enabled focusing on group work, tracking one another's progress, working on the same part of the document synchronously, all of which helped them have the real-life like experience and build a sense of community who were teaming up towards the same goal.

Physical benefits:

The OCP appeared to have numerous physical benefits. In the survey and reflection report, many participants commented that doing a fully OCP saved time, brought comfort with its practicality, and set participants flexible in terms of place and time:

> S3: *It gave us flexibility to do it remotely without any distance difficulties. Meeting with group members at home even at night felt different.*

> S5: *It saved time and had no time constraints. You can consult the group whenever you want, or if there is something that needs to be shared, you can send it instantly. It would be troublesome for us to literally get together.*

It was seen that the participants learned they could actually conduct a group project without being limited to time or place, which in return helped them use their time more efficiently and comfortably in compliance with the affordance of ubiquitous learning. Reporting on their experiences of online classes, Yükselir and Yuvayapan's (2021) participants also referred to the benefits of being online as it set them free from time and place. In addition, the participants in this study frequently indicated that thanks to the project, they were able to access their group members and materials instantly:

> S43: *We were able to reach each other and share our ideas every minute we could think of. We were able to find our resources instantly and share them easily. We had a chance to remotely access each other's computer via some applications and so in every sense we felt like we were side by side during the stages of the project.*

Moreover, the participants mentioned that via online platforms, they were able to easily exchange information and receive/give feedback on what they had done for the group project, which was highlighted by the statements of the participants defining the online projects as "fast" and "practical." Besides, the participants indicated that it was easy for the group members to get together, share and work on the same materials synchronously or asynchronously; therefore, they stated that they ended up finishing the project fruitfully earlier than expected. Parallel findings in Hung (2011) showed that conducting a video project helped the participants learn and that the project facilitated the process. On the other hand, few participants indicated that it was easy to store and access all the materials relevant to the project, which showed the contribution of the online projects in terms of content delivery and archival of materials.

4.2.2. Challenges of online group collaboration

The main categories emerging from the data analysis for the challenges of online group collaboration are affective, physical, academic, and group dynamics-related challenges (Figure 5).

Figure 5. The categories and codes related to the challenges of online group collaboration

Physical challenges:

The participants who indicated that they would choose a F2F environment for their next possible group project reported that the online environment was not as effective as the F2F environment, and delayed the workflow because of the interaction difficulties. Therefore, as also suggested by Dillenbourg et al. (2009), in this study, technical problems created frustration for some participants:

> S28: *Due to connection problems and lack of equipment such as a camera, we could not talk as comfortably as in normal life. We had to finish our statement and wait. Sometimes there was a time-lag during communication.*

In addition to the lack of technical equipment and connection problems mentioned above, some participants indicated that the technical problems they had to deal with consumed too much time. In addition, in the audio/video conferencing environments, they sometimes had difficulty in deciding who would take the turn, which, from time to time, resulted in either overlaps or everyone staying silent for fear of interrupting others' speech. Also, they mentioned that the affordances of the a/synchronous environments/apps were not sufficient to have a progressing and fruitful group collaboration, as displayed in the following comment:

> S14: *Since messaging via WhatsApp may not be synchronous, it cannot be performed very effectively and quickly. Also, it may not be possible to find a suitable time for everyone for Zoom meetings, and not everyone can spare time. In addition, since there may be delays and screen freezing in Zoom, it may not be an effective conversation.*

This finding is consistent with that of Margaliot et al. (2018), as one of the drawbacks mentioned in their study was the difficulty in coordinating online discussions, which contributed to dissatisfaction. In addition, there were two less frequently mentioned physical challenges worth highlighting here. First, according to the instructions given at the beginning of the project, the participants were supposed to design videos lasting no longer than three minutes, but most of the participants referred to the time limit of the videos as insufficient. This showed the importance of negotiating the instructions with the participants before the students started working on the project and how the top-down pre-set instructions could impact the motivation of the learners toward these kinds of technology-driven projects. Second, another challenge mentioned was that each phase of the project was allocated the same time limit (a week for each phase), and this was not proper since the workload for each phase was not equal. From both of these physical challenges, the critical nature of task design for the group project's success becomes clear, as Isaac (2012) also advocates.

Affective challenges:

As Dillenbourg et al. (2009) mentioned, social relationships during collaborative group work determine how much the group members invest in the work they need to do and how much they feel motivated to overcome possible conflicts. Some participants confirmed this statement as in the online environment they did not feel as close as they would in a F2F environment, and were not able to build social relationships with one another:

> S35: *We cannot get to know our group mates and/or enjoy our time working on the project.*

> S1: *I now realized better the importance of the face-to-face environment and how important it is for the group members to know and understand each other closely in order to generate ideas and be more productive.*

In addition, the participants complained about the problems caused by their group mates and how their group mates' behaviors decreased their motivation. They indicated that their group mates did not take the assignment seriously and therefore were indifferent to the task's requirements. Furthermore, it was revealed that some participants were not cooperative enough and had trouble focusing during online meetings, which was mentioned in the surveys and reflection reports by many participants. On the other hand, referring to the connection between the affordances of being in an online environment and its affective impacts, the participants indicated that not being in the same environment physically took away the closeness effect and made them feel more distant from one another. They, therefore, could not get to know one another better and had more formal and less fun online meetings. This finding is in line with the previous studies (Cayari & Fox, 2013; Hung, 2011), as in these studies, the importance of affective interferences on how successful group collaborations turn out was also revealed and highlighted.

Academic challenges:

The most frequently mentioned academic challenge by the participants was related to how being in the online collaboration environment distorted the execution of the workflow. The participants indicated that they felt more connected mentally, and it was easier to make progress when in the same room physically. In the online environment, however, they admitted that the end-product, that is, the video they produced as a group, was not as well-prepared as they could have done if they had been in a F2F environment:

> S43: *If we were together (F2F) during the preparation of the video, we could have directed each other more accurately and produced a better video than the current one. Also, we could have been much quicker.*

Supporting the previous quotation, another participant disclosed the fact that they were not able to display a process-oriented collaboration with their group but mostly they were able to give feedback and make corrections on the finished product of their group mates:

> S37: *Since we were not in the same physical environment, we could only access each other's productions when they were completed, for example, if there was an error in the video, we could only detect it after that a group mate finished preparing that video part and shared it on the drive.*

In addition, it was seen that since most of the groups frequently contacted asynchronously via WhatsApp, they felt the delayed feedback they got from their group mates hindered a flawless progress and their motivation to work harder for the video designing task. Also, they mentioned that as it was not always possible to find a common time for a video conferencing session, they had to contact each other via texting, resulting in some misunderstandings among group members while creating content for the videos.

Therefore, the type of the task might determine how fruitful the collaboration unfolds. As Dillenbourg et al. (2009) suggested, the learners do not have to conduct remote collaboration for CSCL to occur, but being as a group in front of one computer while doing the task also counts as CSCL. In this case, since the participants had to prepare one video per group, it was difficult for them to track the progress of the rest of the group and give feedback in the

course of the video designing process. For that reason, giving the participants freedom to complete the task in front of one computer for the sake of an efficient process-oriented collaboration and a better end-product is of utmost importance. As put forth by Su and Zou (2020) as a possible reason for the failure of one example of online collaboration, instead of excessively focusing on the online collaboration etiquette, shaping the nature of the technology-enhanced collaboration in accordance with the requirements of the task should be the goal of the instructors.

Group dynamics-related challenges:

It was observed that there were a few challenges caused by the group dynamics (Figure 5). The prominent challenges faced by the participants were mostly related to unequal workload and communication problems:

> S5: *Sometimes when you want to receive feedback about what you have prepared, they may not see it immediately, or there are those who see it and do not respond. However, in a face-to-face environment you can get instant feedback.*
>
> S8: *The negative sides were that my group mates were indifferent, did not connect to the Internet, did not use the applications, and this was a personal problem, not application-related.*

Participant quotations assert the importance of the direct connection between communication among group members and group dynamics. As Dillenbourg et al. (2009) mentioned, to get the most out of a collaborative project, members of the group must be cooperative and commit to what the processes incorporate, such as discussions, negotiations, giving/getting feedback, and reviewing other group members' work. As also confirmed by Hilliard, Kear, Donelan & Heaney (2020), Isaac (2012), Scherling (2011), and Thompson and Ku (2006), group projects could result in ineffective communication and workload distribution problems among group members, which in return affected the quality of processes the project involved. In this study, the participants complained about the indifference of their group members towards being accessible via online channels, not taking on responsibility, and leaving the workload on the rest of the group members' shoulders. This demonstrates the significance of requiring the group members to evaluate the contributions of other members, as Scherling (2011) opines. Additionally, participants frequently mentioned how pivotal it is for them to choose their own group mates for OCPs, emphasizing the importance of group accountability for group projects. They indicated that, especially in the online environment, it was difficult to get to know new people and build rapport right away to start working harmoniously on the task together. As Selçuk (2017) asserted, it is important for the participants to collaborate with and learn from people they are familiar with, which, as he stated, is consistent with Vygotsky's (1978) social constructivist perspective.

All in all, it is possible to say that the participants had a positive perspective overall even though they mentioned a few challenges (time constraints, technical difficulties, affective interferences etc.) they encountered on the way, which is in line with Huang et al.'s (2020) findings. Still, it is necessary to state that few participants indicated they would have preferred to work alone and did not benefit from collaborating with their group mates. As a matter of fact, most participants were content with the experience and the output they produced for the project in comparison to few others who were not very successful at conflict management with their groups. This finding was in line with Isaac (2012), where typical comments of her participants involved how group work resulted in less productivity and miscommunication

and how they did not like being dependent on others. This shows the importance of paying attention to the individual differences of the participants, and not all participants were actually collaborating even though they seemed so. This finding is not entirely consistent with that of Huang et al. (2020) since they indicated that their participants found collaboration beneficial and supported working in groups without pointing out any exceptions.

4.3. Participants' Perspectives on the Online Community Service Experience

When the participants were asked how this OCP transformed the participant's perspectives towards the community service experience and what their further suggestions and comments would be for future 'Community Service' courses, most of the participants reflected a positive viewpoint, as illustrated below:

> S32: *Thanks to this project, we have seen that we can use the Internet not only for our own personal purposes but also to raise awareness in society.*

> S40: *I think that we have made a great contribution to society with this project.*

According to Koşar (2021), factors such as a strong sense of community contribute to the accomplishment of an OCP. The positive attitudes and complacency of the participants at the end of the project are a clear indication of the project's success. As one of the factors mentioned by Koşar (2021), this success could be partly connected to the participants' successful collaboration with one another, use of their initiative, and pursuit of a common community interest. Thus, it could be said that this project helped participants demonstrate sensitivity and feel a part of the community they live in, thereby achieving a key objective of the 'Community Service' course. On the other hand, some participants indicated that a 'Community Service' course needs to be conducted F2F, and the course should be supported with discussion sessions with the instructors where the awareness-raising topics related to the community's problems are expanded upon:

> S19: *First of all, I would like to point out that it was one of the most favorable projects to be done in the current situation. Considering the situation our world is in, this project was conducted online but I would not normally like to do a project that especially concerns the society without literally being in public.*

> S43: *In my opinion, this year, this project was carried out very efficiently by being conducted phase by phase. However, for this course, weekly lessons that included discussions with the instructors every week could have been held to raise our awareness for these projects. It is very important to present a unique product. I think awareness can only be created in this way.*

As reflected in their comments, when forced to migrate to the emergent remote learning conditions with the rise of the COVID-19 pandemic, some of the learners voiced their anxieties over not being able to access the targeted groups of people physically. Initially, they considered the online medium as a barrier to the effective civic engagement and performance of the community service in the field. The earlier stated physical, academic, affective, and group dynamics-related challenges highlight fragments from some of these intimations of anxiety. However, most of the participants referred to the social benefit and impact their end-product created in the public and how online collaboration made this contribution possible under the conditions of the pandemic. Hence, what stood out as a potential barrier towards physical engagement with the target community- online medium-, is simultaneously

associated with the role of a facilitator for conducting awareness-raising group projects that reach out to wider online communities. This role of 'facilitator' could have contributed to the participants' sense of belonging to a community. As Xie et al. (2019) emphasized, the social roles people assume during collaboration tasks play a vital role in establishing and adapting their own roles, such as leadership in completing a group project and passing on what they have learned throughout the process to the learning community.

Considering the learning outcomes of the given 'Community Service' course, the unexpected and accelerated transition to online conditions might also have triggered the learners' creativity by posing an extra challenge to be handled collaboratively. One of the stated objectives of the course was to introduce the society with the concepts of volunteering; sharing, recognizing and accepting the different, adapting to the differences by allowing the development of values such as problem-solving, being productive, and creative. Engaged in a unique digital civics experience throughout the project and research, the participants attempted to figure out solutions to problems posed by the pandemic around clearly defined sub-themes (each addressing a target community) in line with the stated goals of the 'Community Service' course.

As opposed to traditional service learning where both instruction and service is on site, they experienced the extreme e-service learning with 100% of the instruction and service being online. However, faced with this swift transition to the extreme e-service learning, the learners reported being able to respond effectively to the pandemic with their authentic product that made perceptible impacts, which is also mentioned among the design principles of a successful 'Community Service' course (Waldner, Widener, & McGorry, 2012).

5. Conclusion, limitations and implications for practice

The study aimed to reveal the web tool preferences and perceptions of the ELT PSTs towards a fully OCP. In addition, since the study was conducted within the scope of the 'Community Service' course, the researchers explored how doing a fully OCP impacted the PSTs' community service experience. The findings revealed that to complete their OCPs, the participants utilized various web tools and platforms such as WhatsApp and Zoom, which they frequently used on a daily basis. In addition, academic, affective, and physical benefits were revealed, such as feeling more like a community, being more comfortable and flexible, gaining confidence in technology use, and having instant access to both materials and group members. Even though much fewer, there were still challenges of fully OCP, including technical issues, proximity-related affective issues, and group dynamics-related issues, in addition to workload distribution and processing problems. Overall, it is possible to say that the participants who had a positive experience outbalanced those who did not benefit much from the online collaboration. Regarding what they thought of the fully online community service experience they had in this project, they admitted realizing the possibility of doing some good for the community, especially in relation to raising awareness towards the community's problems via using technological affordances. However, few participants emphasized the importance of integrating F2F sessions into the course to have community-related discussions with their course instructors and be physically present for the community.

Therefore, in light of the findings revealed, it can be said that educators need to consider the benefits and challenges of online collaboration projects and make pedagogical moves accordingly so that in the minds of the students, the experience will not be a cause of frustration but a channel which helps them learn. The educators should also take into

consideration how much time the online collaboration task could take and spare time-based on the workload of each step. In addition, if the students are unfamiliar with the web tools they are expected to use, the teacher should allocate time to teach the students how to use them and take precautions against any foreseen technical issues. This, in return, could increase their technological confidence and promote a more positive attitude towards online collaboration. Besides, the teacher should ensure that all students in each group are working on the same phase of the task together and that each group member has a specific role. Importantly, as the feasibility of a fully OCP has been demonstrated by the findings of the current study, teachers should design such projects to increase interaction and collaboration among students outside of the classroom. In addition, as Akayoğlu and Cirit (2017) suggested, via online collaboration platforms, collaboration should be encouraged among PSTs and English language teachers to connect and learn from other teachers from all over the world in order to stay abreast of the latest developments and various useful practices/content/materials in the field. This study confirms the relevance of Akayolu and Cirit's suggestion, as online collaboration environments showed to be an effective means of encouraging people to connect, share opinions, construct knowledge, and learn from one another, even though it is necessary to note that every online collaborative learning environment is unique.

Regarding the study's limitations, as this study was implemented for one academic term with one case, further longitudinal studies could be conducted within the scope of other courses to expand on the impact of OCPs. On the other hand, conducting a pre-task survey together with a post-task survey would have been beneficial in comparing participants' perspectives. Besides, it is highly crucial that the instructor makes sure the learners are all collaborating on the same specific parts of the project together instead of them distributing the parts and workload among group members and everybody just completing their own part. Otherwise, actual collaboration might not occur if there is no synchronous joint effort on the project. As Jones and Issroff (2005) indicated, there might be a breakdown in collaboration, which was also observed in some groups of the current study.

As for further research, future studies should monitor the participants for a much longer period of time to overcome the novelty effect. This could yield more reliable findings when the participants were given an opportunity to adapt the process of doing fully online collaboration projects in every aspect. As several scholars indicated that acquaintance with group members could change the perspective of the participants towards group collaboration and group characteristics could be influential in online collaboration (Wang et al., 2020), future research could also examine OCPs with participants who are not acquainted prior to the implementation of the project as this could reveal different findings, especially in terms of group dynamics-related issues and affective issues.

Ethical Issues

The authors confirm that the study does not need ethics committee approval according to the research integrity rules in their country (Date of Confirmation: 27/09/2022).

References

Akayoğlu, S., & Cirit, N. C. (2017). Preferences of preservice teachers of English in terms of CALL tools. *Mehmet Akif Ersoy University Journal of Faculty of Education, 44*, 146–161.

Aksel, A., & Gürman-Kahraman, F. (2014). Video project assignments and their effectiveness on foreign language learning. *Procedia-Social and Behavioral Sciences, 141*, 319–324.

Can, T. (2009). Learning and teaching languages online: A constructivist approach. *Novitas-Royal, 3*(1), 60–74.

Cayari, C., & Fox, H. L. (2013). The pedagogical application of collaborative video logs. *Proceedings of the Practice of Educational Communications and Technology*, 51, 351–363.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five traditions* (2nd ed.). Thousand Oaks, CA: Sage.

Dillenbourg, P., Järvelä, S., & Fischer, F. (2009). The evolution of research on computer-supported collaborative learning. In N. Balacheff, S. Ludvigsen, T. De Jong, A. Lazonder, & S. Barnes (Eds.), *Technology-enhanced learning* (pp. 3–19). Berlin: Springer.

Dillenbourg, P. (2002). Over-scripting CSCL: The risks of blending collaborative learning with instructional design. In P. A. Kirschner (Ed.), *Three worlds of CSCL: Can we support CSCL* (pp. 61–91). Heerlen, The Netherlands: Open Universiteit Nederland.

Dillenbourg P. (1999). What do you mean by collaborative learning? In P. Dillenbourg (Ed.), *Collaborative-learning: Cognitive and computational approaches* (pp.1–19). Oxford: Elsevier.

Dudeney, G., & Hockly, N. (2016). Literacies, technology and language teaching. In F. Farr, & L. Murray (Eds.). *The Routledge handbook of language learning and technology*, (pp. 115–126). London: Routledge.

Glaser, B. C., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.

Godwin-Jones, R. (2003). Emerging technologies. *Language Learning & Technology, 7*(2), 12–16.

González-Lloret, M. (2020). Collaborative tasks for online language teaching. *Foreign Language Annals, 53*(2), 260–269.

Grover, V., & Sabherwal, R. (2020). Making sense of the confusing mix of digitalization, pandemics and economics. *International Journal of Information Management, 55*. https://doi.org/10.1016/j.ijinfomgt.2020.102234

Hafner, C. A., & Miller, L. (2011). Fostering learner autonomy in English for science: A collaborative digital video project in a technological learning environment. *Language Learning & Technology, 15*(3), 68–86.

Hernández-Sellés, N., Muñoz-Carril, P. C., & González-Sanmamed, M. (2019). Computer-supported collaborative learning: An analysis of the relationship between interaction, emotional support and online collaborative tools. *Computers & Education, 138*, 1–12. https://doi.org/10.1016/j.compedu.2019.04.012

Hilliard, J., Kear, K., Donelan, H., & Heaney, C. (2020). Students' experiences of anxiety in an assessed, online, collaborative project. *Computers & Education, 143*. http://dx.doi.org/10.1016/j.compedu.2019.103675

Hung, S. T. (2011). Pedagogical applications of Vlogs: An investigation into ESP learners' perceptions. *British Journal of Educational Technology, 42*(5), 736–746.

Huang, H. W., Wu, N., Jiang, Y., & Li, Y. (2020). EFL learners' perceptions of vlog projects to facilitate group collaboration and learning participation. *Proceedings of the 4th International Conference on E-Education, E-Business and E-Technology,* 84–89.

Isaac, M. L. (2012). "I hate group work!" social loafers, indignant peers, and the drama of the classroom. *English Journal, 101*(4), 83–89.

Jones, A., & Issroff, K. (2005). Learning technologies: Affective and social issues in computer-supported collaborative learning. *Computers & Education, 44*(4), 395–408.

Jung, I., Kudo, M., & Choi, S. K. (2012). Stress in Japanese learners engaged in online collaborative learning in English. *British Journal of Educational Technology, 43*(6), 1016–1029.

Koşar, G. (2021). Online collaborative learning: Does it improve college students' critical reading skills? *Interactive Learning Environments*, 1–13. http://dx.doi.org/10.1080/10494820.2021.1998137

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge: Cambridge University Press.

Margaliot, A., Gorev, D., & Vaisman, T. (2018). How student teachers describe the online collaborative learning experience and evaluate its contribution to their learning and their future work as teachers. *Journal of Digital Learning in Teacher Education, 34*(2), 88–102.

Marinoni, G., Van't Land, H., & Jensen, T. (2020). *The impact of Covid-19 on higher education around the world.* IAU Global Survey Report 23. Retrieved September 20, 2022, from https://www.uniss.it/sites/default/files/news/iau_covid19_and_he_survey_report_final_may_2020.pdf

Nussbaum, M., Alvarez, C., McFarlane, A., Gomez, F., Claro, S., & Radovic, D. (2009). Technology as small group face-to-face collaborative scaffolding. *Computers & Education, 52*(1), 147–153.

Richards, K. (2003). *Qualitative inquiry in TESOL.* Basingstoke: Palgrave Macmillan.

Scherling, S. E. (2011). Designing and fostering effective online group projects. *Adult Learning, 22*(2), 13–18.

Selçuk, H. (2017). *A qualitative exploration of student perceptions of peer collaboration through the medium of online short story writing among Turkish public high school EFL learners in a social media environment* (Unpublished doctoral dissertation). King's College London, London, United Kingdom. Retrieved September 20, 2022, from https://kclpure.kcl.ac.uk/portal/files/77084162/2017_Selcuk_Hasan_1154065_ethesis.pdf

Stahl, G., Koschmann, T., & Suthers, D. (2014). Computer supported collaborative learning: An historical perspective. In K. Sawyer (Ed.), *Cambridge handbook of the learning sciences* (pp. 479–500). New York: Cambridge University Press.

Su, F., & Zou, D. (2020). Technology-enhanced collaborative language learning: theoretical foundations, technologies, and implications. *Computer Assisted Language Learning*, 1–35. http://dx.doi.org/10.1080/09588221.2020.1831545

Thompson, L., & Ku, H. Y. (2006). A case study of online collaborative learning. *Quarterly Review of Distance Education, 7*(4), 361–375.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Massachusetts: Harvard University Press.

Waldner, L. S., Widener, M. C., & McGorry, S. Y. (2012). E-service learning: The evolution of service-learning to engage a growing online student population. *Journal of Higher Education Outreach and Engagement, 16*(2), 123–150.

Wang, C., Fang, T., & Gu, Y. (2020). Learning performance and behavioral patterns of online collaborative learning: Impact of cognitive load and affordances of different multimedia. *Computers & Education, 143*. http://dx.doi.org/10.1016/j.compedu.2019.103683

Xie, K., Hensley, L. C., Law, V., & Sun, Z. (2019). Self-regulation as a function of perceived leadership and cohesion in small group online collaborative learning. *British Journal of Educational Technology, 50*(1), 456–468.

Yükselir, C., & Yuvayapan, F. (2021). An evaluation of students studying English language and literature about transitioning to online classes during COVID-19 pandemic. *International Journal of Contemporary Educational Research, 8*(3), 81–91.

Zeng, G., & Takatsuka, S. (2009). Text-based peer–peer collaborative dialogue in a computer-mediated learning environment in the EFL context. *System, 37*(3), 434–446.